



U.S. Department of the Interior  
Bureau of Land Management  
Fish & Wildlife Service

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**Final Environmental Impact Statement to Consider a Highway  
Right-of-Way, Amended Habitat Conservation Plan and Issuance  
of an Incidental Take Permit for the Mojave Desert Tortoise,  
and Proposed Resource Management Plan Amendments,  
Washington County, UT**

**November 2020**

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**Volume 4: Appendices K – O**



**Estimated Total Lead Agencies'  
Costs Associated with Developing  
and Producing this Document:**

**\$8,275,620**

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# Appendix K: Noise Technical Report

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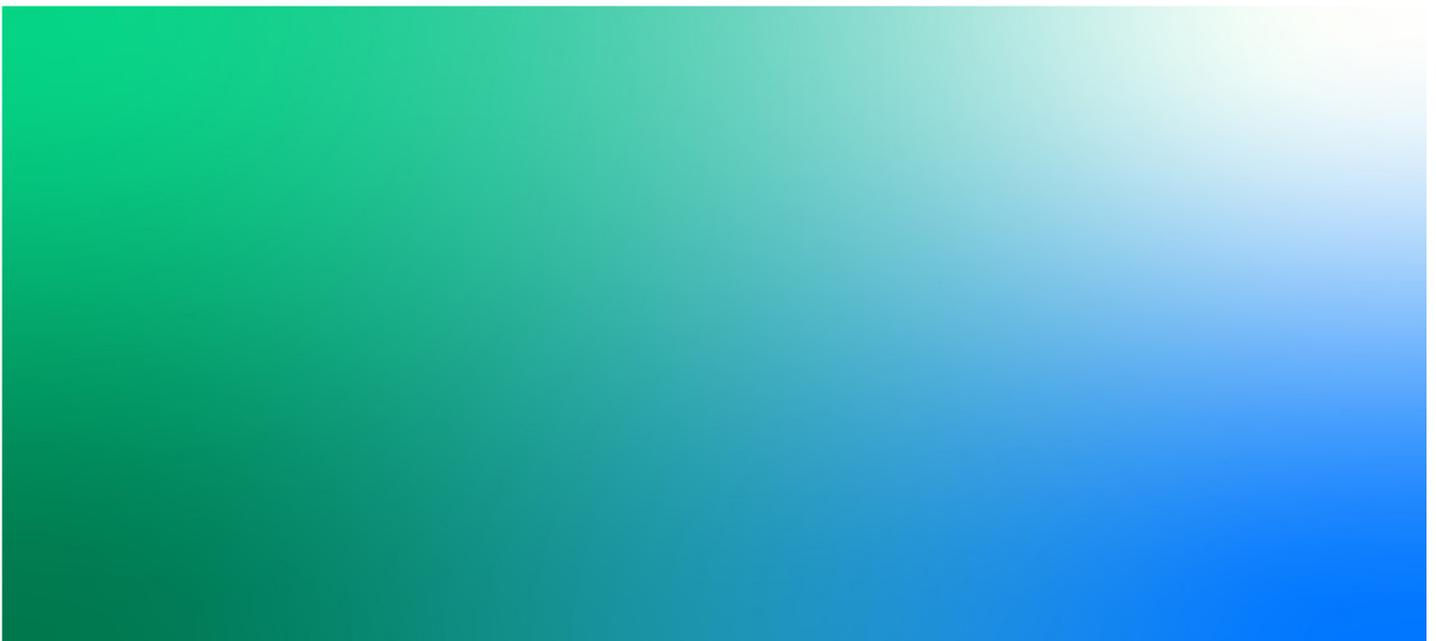
Northern Corridor

Noise Technical Report

Final

October 2020

Prepared for:  
U.S. Department of the Interior Bureau of Land Management  
Fish & Wildlife Service



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## Acronyms and Abbreviations

BLM	Bureau of Land Management
CFR	<i>Code of Federal Regulations</i>
dBA	A-weighted decibel
EIS	Environmental Impact Statement
Leq(h)	level equivalent of noise over a 1-hour period
NAC	Noise Abatement Criteria
NCA	National Conservation Area
ROW	right-of-way
UDOT	Utah Department of Transportation

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## 1. Introduction

Transportation models show the existing transportation network in Washington County does not have enough capacity for the increased demand of a growing population. In response, the Utah Department of Transportation (UDOT) filed a right-of-way (ROW) application for a proposed highway, referred to as the Northern Corridor, on the Bureau of Land Management (BLM)-administered Red Cliffs National Conservation Area (NCA). This action initiated the National Environmental Policy Act process requiring preparation of an Environmental Impact Statement (EIS). This Noise Technical Report supports the EIS.

## 2. Proposed Action and Alternatives

If the BLM selects an alternative that would cross BLM-administered public lands, the BLM's action would be to grant a ROW to UDOT for the construction, operation, and maintenance of the Northern Corridor across those lands. The ROW would be subject to BLM terms and conditions.

The three alternatives within the NCA (T-Bone Mesa Alignment, UDOT Application Alignment, and Southern Alignment) vary in location and tie-in locations with Red Hills Parkway, but share the following common features:

- Up to 500-foot-wide ROW.
- 4-lane highway with two 12-foot-wide travel lanes in each direction, 8-foot shoulders, and a center median.
- A combination of curb and gutter, drainage swales, and ditches.
- Bicycle and pedestrian trail(s).
- Associated signage.
- A new intersection for connection to Red Hills Parkway and a new intersection at Cottonwood Road (also known as Old Dump Road or Turkey Farm Road).

The Red Hills Parkway Expressway and St. George Boulevard/100 South One-way Couplet alternatives lie predominantly or entirely outside the NCA, and propose improvements to existing infrastructure rather than a new highway within the NCA.

Under the No Action Alternative, the BLM would deny UDOT's application for a ROW across the Red Cliffs NCA for the Northern Corridor. The alternative reflects all the roadway and transit improvements from the applicable local, regional, and statewide transportation plans that would be completed by 2050, absent the Northern Corridor. It provides a baseline against which the other Northern Corridor alternatives will be compared based on traffic performance.

Alternatives are shown on Figure 1.

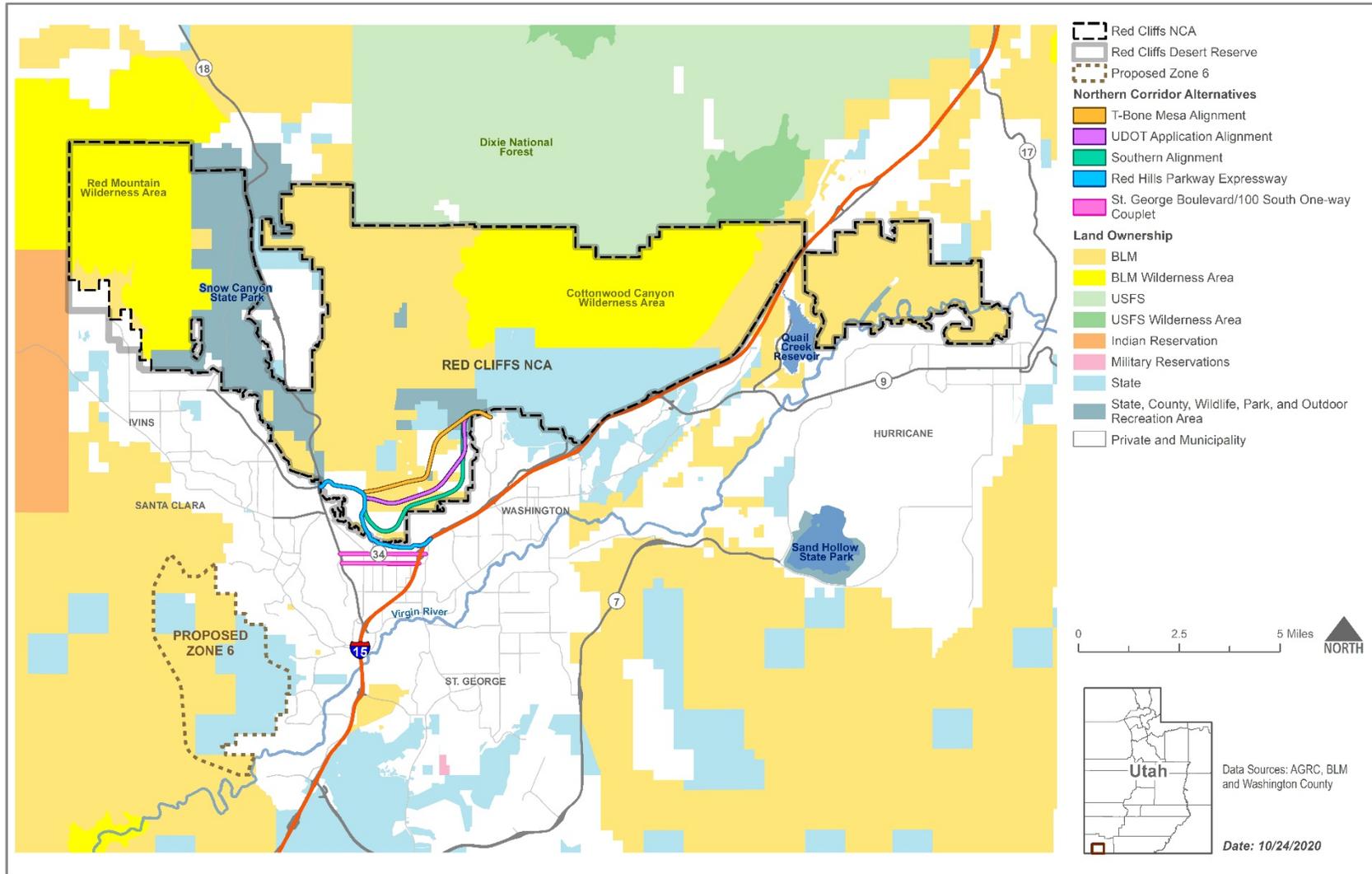


Figure 1. Proposed Northern Corridor Alternatives

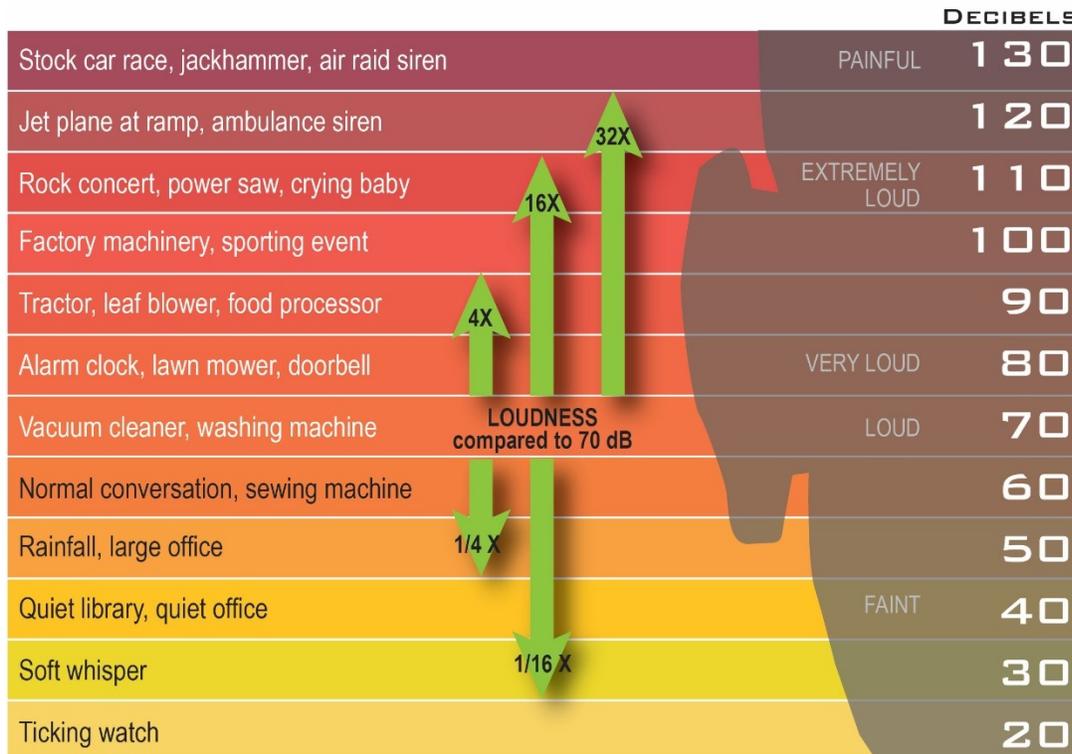
### 3. Characteristics of Sound and Noise

Noise is generally referred to as unwanted sound, while sound is defined as a form of energy transmitted by vibrations through the air that are received by the ear through the sense of hearing. The terms noise and sound are used synonymously.

Sound is described as the average sound pressure levels, and is most commonly measured in decibels. To approximate the response of the human ear, sound levels of individual frequency bands are weighted, depending on the human sensitivity to those frequencies. For the purposes of environmental studies, the A-weighted scale on a common sound level instrument is used (A-weighted decibels, or dBA), because this scale closely approximates the range of frequencies an average human ear can detect. Figure 2 shows typical A-weighted noise levels.

Changes in noise of 1 to 2 decibels are generally not perceptible, but it is widely accepted that people are able to begin to detect 3-decibel sound level increases in typically noisy environments. An increase of 3 decibels requires a doubling of existing sound energy, such as doubling the volume of traffic on a highway or halving of distance from a highway. In general, a 3-decibel increase in noise levels is considered barely perceptible, while a 5-decibel increase is generally readily perceptible, and a 10-decibel increase is perceived as being twice as loud.

Noise may be continuous or intermittent, and of high frequency or low frequency. Traffic sound levels are never constant due to the changing number, type, and speed of vehicles. Therefore, traffic noise is typically measured over a 1-hour time period, which is referred to as the level equivalent or Leq(h).



Source: American Academy of Otolaryngology (<https://www.entnet.org/content/block-out-noise>); Centers for Disease Control and Prevention (<https://www.cdc.gov/vitalsigns/hearingloss/infographic.html#infographic>); Center for Hearing and Communication (<http://chhearing.org/noise/common-environmental-noise-levels/>), Hearing Sense (<http://hearingssense.com.au/hearing-tests-services/ear-protection/>).

Figure 2. Typical A-weighted Noise Levels

## 4. Methodology

This section describes the methods and the established Federal and State regulations and policies that were used as the basis for the qualitative analysis.

### 4.1 Federal and State Noise Regulations and Policies

This qualitative analysis used the following regulations and policies, but is not consistent with them, as further described in this section:

- UDOT Noise Abatement Policy (08A2-01), revised May 28, 2020 (UDOT 2020a).
- 23 *Code of Federal Regulations* (CFR) 772.

There are five action alternatives for the Northern Corridor Project that would include improvements to existing roadway infrastructure and new highways on new alignments. A qualitative assessment was determined to be the appropriate level of analysis for assessing potential noise impacts due to the planning level decisions to be made under this EIS. A more detailed noise analysis, including consistency with the UDOT Abatement Noise Policy for a Type 1 project, would be provided after completion of this EIS in a separate project analysis. The qualitative analysis used the UDOT Noise Abatement Criteria (NAC) to categorize noise sensitive receptors, and the associated criteria that is used to determine when noise abatement should be considered. In addition, the qualitative analysis used field-collected ambient noise levels and estimated traffic data for the project to determine potential noise impacts. Changes in traffic were considered between existing volumes and future volumes for the No Action Alternative and the action alternatives where noise sensitive locations are located adjacent to the proposed alignments.

The Federal Highway Administration has established the following NAC (Table 1) for various land use activity areas. As required by 23 CFR 772.11(e), UDOT has defined the point at which noise levels “approach” the Federal Highway Administration NAC as 1 dBA less than the NAC. As required by 23 CFR 772.11(f), UDOT defines a substantial increase in noise levels as 10 dBA over existing noise levels. Noise abatement is considered and evaluated for all noise sensitive receptors impacted by traffic noise. Noise sensitive receptors include permitted land use activity Categories A through E where there is frequent human outdoor use. Categories F and G land uses are not considered noise sensitive and are not evaluated for noise impacts or abatement.

Noise impacts include the above-referenced categories only when development exists or has been permitted. A development is defined as being permitted when a formal building permit has been issued prior to the date the final environmental decision document is approved.

Table 1. Noise Abatement Criteria (Hourly dBA)

Activity Category	Federal Highway Administration Criteria Leq(h)	Department Criteria <sup>a</sup> Leq(h)	Evaluation Location	Activity Description
A	57	56	Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need, and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67	66	Exterior	Residential.
C	67	66	Exterior	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or non-profit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52	51	Interior	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or non-profit institutional structures, radio studios, recording studios, schools, and television studios.
E	72	71	Exterior	Hotels, motels, offices, restaurants and bars, and other developed lands, properties, or activities not included in Categories A through D or F.
F	Not applicable	Not applicable	Exterior	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.
G	Not applicable	Not applicable	Exterior	Undeveloped lands that are not permitted.

Source: UDOT 2020a

<sup>a</sup> Hourly A-weighted sound level in decibels reflecting a 1-dBA approach value below 23 CFR 772 values.

Note:

## 4.2 Noise Regulations for Construction Noise

Quantitative analysis of construction noise is not defined in UDOT's noise abatement policy or in the local county or city ordinances. However, St. George City Code 4-2-3 defines "enumeration of nuisances" as follows:

*It shall be unlawful for any person to make, continue, or cause to be made or continued, any loud, unnecessary or unusual noise, or any noise which annoys, disturbs, injures or endangers the comfort, repose, health, peace or safety of others, within the limits of the city. The following acts when prolonged, unusual and unnatural in their time, place and use, may be a detriment to the public health, comfort, convenience, safety, welfare and prosperity: horns, radios, stereos, loudspeakers, yelling or shouting, exhausts, motor vehicles, drums or musical instruments, construction equipment, airplanes or blasting.*

Nighttime construction is not anticipated for this proposed project. However, if construction activities are required during nighttime hours (10 p.m. to 7 a.m.), the proposed project would adhere to Utah Code 72-6-112.5 (State of Utah 2019), which states:

- *A state highway construction project conducted on a road where the normal posted speed limit is 55 miles per hour (mph) or greater is exempt from any noise ordinance, regulation, or standard of a local jurisdictional authority.*
- *A state highway construction project conducted on a road where the normal posted speed limit is less than 55 mph is exempt from any noise ordinance, regulation, or standard of a local jurisdictional authority if the department:
 
  - *Provides reasonable written notice at least 48 hours in advance of any required nighttime highway construction to each residential dwelling located within front row receptors of the activity.*
  - *Determines a net community benefit exists to conduct nighttime highway construction after considering other resources as defined in the senate bill.*
  - *Institutes best management noise reduction practices for front row receptors, in consultation with local government or the local jurisdictional authority for all nighttime highway construction as defined in the senate bill.**
- *Subject to subsections 2 or 3, a state highway project shall secure required noise permits from the local jurisdictional authority to conduct nighttime highway construction.*

In addition, the proposed project would be subject to UDOT 2020 Standard Specifications for Road and Bridge Construction, Section 00555 (UDOT 2020b). Contractors would be required to conform to this specification during project implementation to reduce the impact of construction noise on the surrounding community.

## 4.3 Traffic Data and Analysis

Based on UDOT noise policy (UDOT 2020a), existing and future worst-case noise levels are modeled using the posted speed limit (or design if different from existing) and Level of Service C traffic volumes. For this project, traffic data will only be used to qualitatively assess potential noise impacts and will not be used for model inputs. A detailed quantitative analysis, including modeling, would be conducted after completion of this EIS in a separate project analysis. The existing posted speed limits would remain under future conditions, except where new highways are proposed. Annual average daily traffic volumes for existing (2017) and future (2050) conditions were obtained from Horrocks (2020). Traffic data used for this analysis are summarized in Table 2.

**Table 2. Existing and Future Annual Average Daily Traffic**

Roadway	Segment	2017 - Existing	No Action Alternative	T-Bone Mesa Alignment	UDOT Application Alignment	Southern Alignment	Red Hills Parkway Expressway	St. George Boulevard/100 South One-way Couplet
Bluff Street	Snow Canyon to Sunset	15,000	31,000	33,000	32,000	31,000	32,000	33,000
Bluff Street	Sunset to St. George	41,000	65,000	61,000	61,000	63,000	55,000	62,000
St. George Boulevard	Bluff to Main	19,000	26,000	23,000	23,000	25,000	19,000	16,000
St. George Boulevard	Main to 1000 East	31,000	36,000	34,000	34,000	36,000	32,000	26,000
St. George Boulevard	1000 East to I-15 ramps	44,000	55,000	50,000	52,000	55,000	47,000	47,000
Red Hills Parkway	Bluff to Skyline	12,000	31,000	39,000	38,000	32,000	47,000	32,000
Red Hills Parkway	Skyline to 1000 East	20,000	38,000	28,000	23,000	36,000	54,000	38,000
Red Hills Parkway	1000 East to I-15 crossing	12,000	20,000	18,000	22,000	20,000	24,000	23,000
100 South	Bluff to Main	9,000	12,000	12,000	13,000	12,000	11,000	17,000
100 South	Main to 1000 East	16,000	24,000	22,000	23,000	24,000	20,000	29,000
100 South	1000 East to River	16,000	34,000	32,000	33,000	34,000	31,000	27,000

Source: Horrocks Engineers 2020

## 5. Traffic Noise Impact Analysis

### 5.1 Identification of Land Use Activity Areas

A receptor is a discrete or representative location of a noise sensitive area. Noise sensitive receptors are those areas where frequent outdoor human use would occur that may be impacted by future transportation conditions. The noise study area was comprised of a 500-foot buffer around the proposed project and included all land uses that could potentially be impacted by future traffic noise. Land uses identified for this project were categorized based on the activity descriptions listed in Table 1.

General land uses in the project area include Category B residential development, Category C recreational uses (such as parks, trails and trailheads, medical facilities, places of worship, schools, day cares, libraries, and cemeteries), and Category E commercial development (such as hotels and restaurants). The majority of the land uses adjacent to the Red Hills Parkway Expressway and St. George Boulevard/100 South One-way Couplet alternatives consist of Category E and Category C land uses. The T-Bone Mesa Alignment, UDOT Application Alignment, and Southern Alignment alternatives are mostly on BLM-administered land, and adjacent land use is mostly for recreational purposes. However, there are a small number of noise sensitive receivers that include Category C uses (trailheads). Residential development is located within the surrounding area near the western termini, and ranges from approximately 500 feet to 900 feet from the center of the action alternatives depending on the alignment. Specific noise sensitive receptors will be selected for modeling and detailed analysis once the action alternatives have been refined and selected for further analysis.

### 5.2 Field Noise Monitoring

Field noise monitoring was conducted to collect ambient noise conditions in the study area. Available aerial photography was reviewed to identify the five field noise measurement locations shown in Table 3 and on Figure 3.

Noise monitoring was conducted for approximately 20 minutes per event at each location, with traffic counted simultaneously where applicable. All noise measurements were collected under meteorologically acceptable conditions; specifically, with dry pavement, calm or light winds (0 to 5 miles per hour), and free-flowing traffic conditions. Noise monitoring was conducted using a Quest 2900 Type I sound level meter that meets American National Standards Institute standards. Meters were calibrated and placed at 5 feet above ground surface, because this is the average height of the human ear.

Table 3 summarizes the field measurement noise levels.

### 5.3 Existing and Future Noise Levels

#### 5.3.1 Overview

Because the field noise measurements only provide noise levels at a specific location, Figure 4 has been provided to show the natural soundscape of Washington County, Utah. This figure was developed by the National Park Service (NPS) and shows existing L50 sound levels during a typical summer daytime hour (NPS 2020). The L50 noise descriptor is defined as sound levels that are exceeded 50 percent of the time during a measurement period. The higher sound levels are representative of more populated areas compared to the lower sound levels in rural undeveloped areas. Ambient noise measurements collected in the rural undeveloped areas are consistent with the natural soundscape as depicted on Figure 4.

**Table 3. Field Measurement Noise Levels**

Meter Number	Alternative	Location	Distance to Roadway	Land Use	Field Measurement Noise Levels (Leq)	Traffic Counts Autos (hourly)	Traffic Counts Trucks (hourly)
M1	St. George Blvd./ 100 South One-way Couplet	500 St. George Boulevard	25 feet	Commercial	75.5	2,272	104
M2	St. George Blvd./ 100 South One-way Couplet	500 East 100 South	25 feet	Residential	72.1	996	28
M3	Red Hills Parkway Expressway	Pioneer Park	25 feet	Park	72.1	1,328	108
M4	T-Bone Mesa Alignment, UDOT Application Alignment, and Southern Alignment	1700 East 1200 North	Not applicable	Residential	35.5	Not applicable	Not applicable
M5	T-Bone Mesa Alignment, UDOT Application Alignment, and Southern Alignment passing	2200 North 990 West	Not applicable	Residential	37.9	Not applicable	Not applicable

Note:

Not applicable = no existing roadway

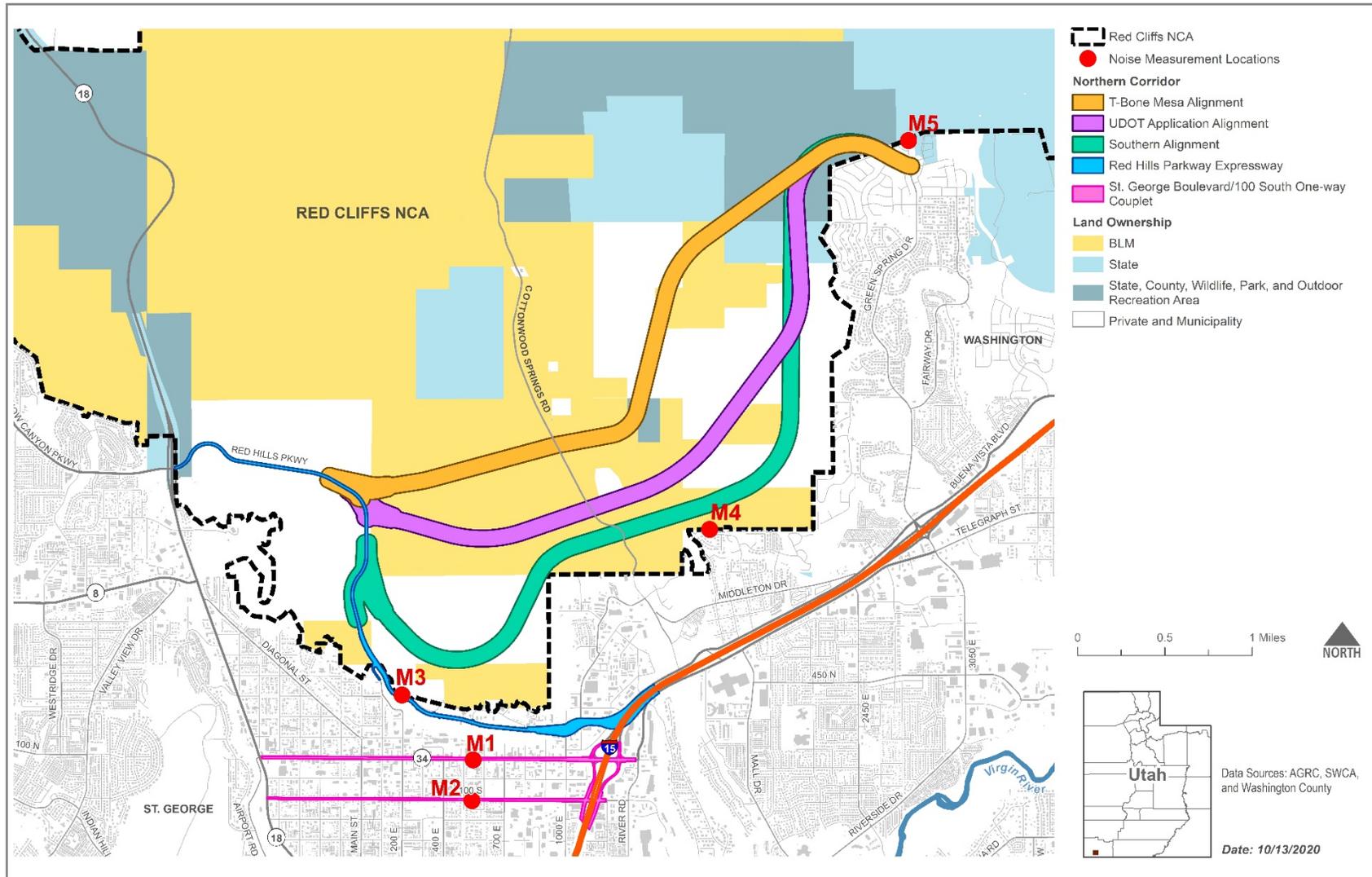
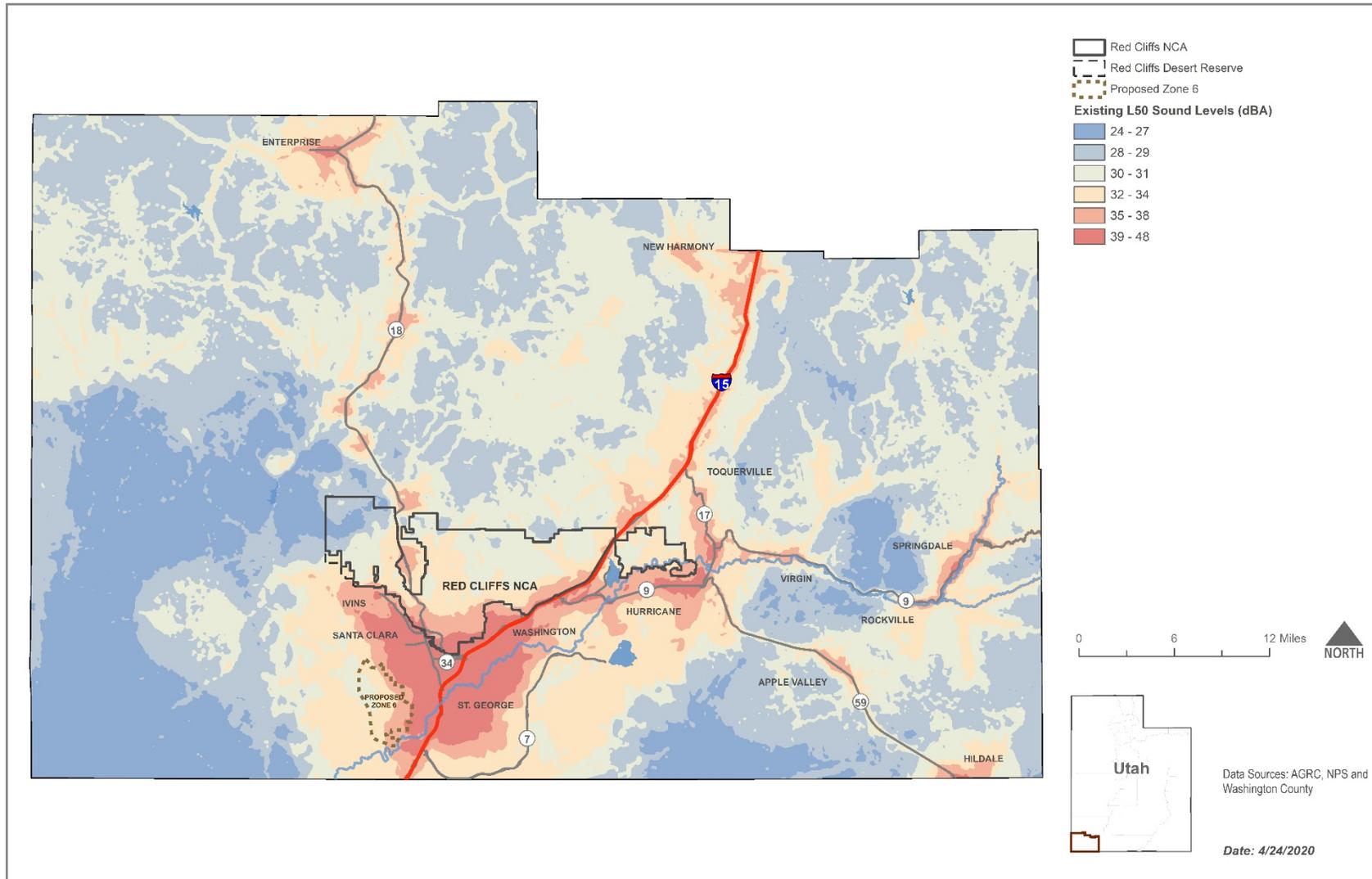


Figure 3. Noise Measurement Locations



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Figure 4. Existing L50 Sound Levels within Washington County

The highest ambient noise levels were recorded at 75.5 dBA and 72.1 dBA at approximately 25 feet from the existing roadways where improvements are proposed for the Red Hills Parkway Expressway and St. George Boulevard/100 South One-way Couplet alternatives, respectively. As shown in Table 2, estimated future traffic is anticipated to double along roadway segments on Bluff Street, Red Hills Parkway, and 100 South compared to existing conditions. A doubling of traffic generally results in a 3-dBA increase in noise levels, which would be perceptible but not substantial as defined by UDOT and Federal Highway Administration guidelines. However, the change in noise levels associated with the No Action Alternative compared to the Red Hills Parkway Expressway and St. George Boulevard/100 South One-way Couplet alternatives is not anticipated to be perceptible.

The most noticeable change in noise levels is anticipated near the T-Bone Mesa Alignment, UDOT Application Alignment, and Southern Alignment alternatives, because these alternatives propose that a new highway would be constructed in an area where no roadway exists with existing and no action conditions. The design details needed to model projected noise are not available and cannot be determined before first considering where to align the highway to best avoid sensitive resources such as Mojave desert tortoise or cultural resource sites, and other factors. If one of these alternatives is selected and design advances, noise modeling would be conducted. If noise modeling identifies future noise levels that substantially exceed existing conditions or exceed the UDOT NAC for the types of receptors near the T-Bone Mesa Alignment, UDOT Application Alignment, and Southern Alignment alternatives, noise barriers would be evaluated based on UDOT's feasible and reasonable criteria (UDOT 2020a). Feasibility factors include engineering considerations such as safety, sight distance, and utilities, and acoustics considerations such as meeting a minimum 5-dBA noise reduction for at least 50 percent of front row receptors. A continuous noise barrier that breaks the line of sight generally results in a noise reduction of 5 dBA or more. If warranted, noise barriers along the new Northern Corridor alignments could be continuous and would not need gaps for driveway connections and local streets. In addition, there should be enough space to construct noise barriers since the receptors are not located adjacent to the new alignment. However, noise barriers may not accomplish both feasible and reasonable criteria because of the distance between the receptors and the alignment. Noise barriers are not feasible unless a 5-dBA noise reduction can be provided for at least 50 percent of front row receptors and are not reasonable unless there is a minimum 7-dBA noise reduction for at least 35 percent of front row receptors. In addition, there needs to be enough benefited receptors to meet the reasonable cost effectiveness of \$30,000 per benefited receptor (activity category B) or \$360 per linear foot (activity categories A, C, D, or E). A more detailed noise analysis including evaluation of noise barriers, as applicable, would be provided after completion of the EIS in a separate project analysis.

Based on ambient noise levels and traffic volumes along the existing corridors of Red Hills Parkway, St. George Boulevard, and 100 South, noise levels are not likely to significantly change between the existing conditions, the No Action Alternative noise conditions in 2050, or the implementation of any of the action alternatives. Field-measured noise levels along the existing corridors of Red Hills Parkway and St. George Boulevard/100 South were 72.1 dBA and 75.5 dBA at approximately 25 feet, respectively. Therefore, future noise levels are likely to exceed the NAC for all applicable categories. Most of the noise sensitive receptors are located adjacent to the proposed improvements. However, some receptors are beyond the first row of receptors. A doubling of distance results in a 3-dBA decrease in noise levels for a line source (such as road traffic). Therefore, the distance at which noise levels would drop below the NAC (impact contour distance) is anticipated to range approximately 125 feet to 300 feet for the Red Hills Parkway Expressway and St. George Boulevard/100 South One-way Couplet alternatives, respectively. However, noise levels beyond the first row of receptors would likely be even lower when shielding from existing structures (for example, buildings) is considered. Therefore, noise impact contour distances are likely to be at shorter distances. Even if noise impacts are identified along the Red Hills Parkway Expressway and St. George Boulevard/100 South One-way Couplet alternatives, noise abatement is not likely to be feasible because of the numerous driveway connections and street intersections that would

require gaps in the noise barriers, rendering them ineffective. In addition, the space between the roadway and receptors is likely to be too limited to construct and properly maintain a noise barrier within the ROW. Furthermore, constructing a noise barrier this close to the roadway would result in unsafe driving conditions for motorists because their view would be limited.

### 5.3.2 Construction

Construction activities associated with the proposed project would temporarily elevate noise levels in the study area for each action alternative. Noise generated by project-related construction activities can vary depending on the noise levels generated by individual pieces of construction equipment, the type and number of pieces of equipment operating at any given time, the timing and duration of construction activities, the proximity of nearby sensitive land uses, and the presence or lack of shielding at these sensitive land uses. The operation of heavy construction equipment and the arrival and departure of heavy-duty trucks is a primary source of noise for roadway construction projects. Table 4 summarizes general pieces of equipment likely to be used to construct one of the action alternatives, and the reference sound levels at varying distances based on the roadway construction noise model (FHWA 2006).

Construction noise associated with each action alternative would be temporary and intermittent and would be conducted during daytime hours, when occasional loud noises are more tolerable. None of the receptors are expected to be exposed to construction noise for a long duration; therefore, any extended disruption of normal activities is not expected. If noise is a concern during construction, further assessment will be required to determine use of appropriate control measures in an effort to reduce temporary noise levels.

Contractors would be required to conform to the UDOT 2020 Standard Specifications for Road and Bridge Construction (UDOT 2020b) to reduce the impact of construction noise on the surrounding community during construction. Nighttime construction is not anticipated for this proposed project. However, if construction activities are required during nighttime hours (10 p.m. to 7 a.m.), the proposed project would adhere to Utah Code 72-6-112.5 (State of Utah 2019).

**Table 4. Construction Equipment Sound Levels**

Equipment Type	Decibels at 50 feet	Decibels at 400 feet (0.08 mile)	Decibels at 800 feet (0.15 mile)	Decibels at 1,600 feet (0.30 mile)
Blasting	94	71.5	64	56.5
Chain saw	84	61.5	54	46.5
Compressor (air)	78	55.5	48	40.5
Concrete mixer truck	79	56.5	49	41.5
Concrete pump truck	81	58.5	51	43.5
Concrete saw	90	67.5	60	52.5
Crane	81	58.5	51	43.5
Excavator	81	58.5	51	43.5
Front end loader	79	56.5	49	41.5
Grader	85	62.5	55	47.5
Impact pile driver	101	78.5	71	63.5
Mounted impact hammer (hoe ram)	90	67.5	60	52.5
Rock drill	81	58.5	51	43.5

Source: FHWA 2006

## 6. References

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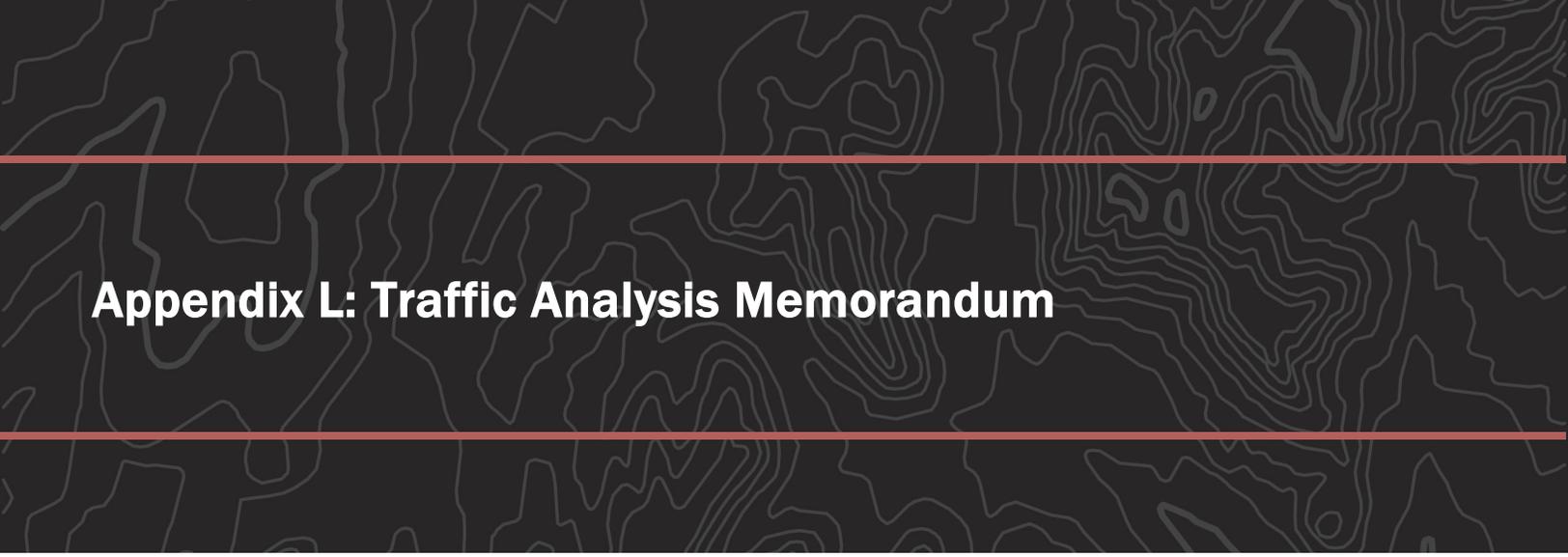
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**Appendix L: Traffic Analysis Memorandum**

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## Memorandum

To: Northern Corridor EIS Project Team  
From: Horrocks Traffic Group  
Date: September 2020  
Subject: Preliminary Northern Corridor Traffic Analysis

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The purpose of this memo is to describe analysis performed with respect to the purpose and need and alternatives development of the Northern Corridor in support of the Northern Corridor Environmental Impact Study (EIS). The memo addresses population growth and its impact on east/west travel demand in Washington County, Utah in 2050 and evaluates potential transportation solutions in order to meet the identified future travel demands. This memorandum details data collection efforts, study methodology, and traffic operations for 2019 and 2050 under the No Action and preliminary alternatives.

## STUDY METHODOLOGY

### Data Collection

Data collected in order to perform the intersection analysis for the project included roadway geometry, signal timings, field visits to observe traffic conditions, roadway and intersection volumes, speeds, travel times, and vehicle classification information. Data was obtained from the Utah Department of Transportation (UDOT) Performance Measurement Systems (PeMS) and automatic traffic recorders, pneumatic tube counts, origin-destination information collected using Bluetooth technology, and both manual and video intersection turning movement counts. 2019 PM peak hour turning movement counts were performed at the following intersections:

- Snow Canyon Parkway and Bluff Street
- Northbound Bluff Street Flyover at Red Hills Parkway/Snow Canyon Parkway
- Southbound Bluff Street Flyover at Red Hills Parkway/Snow Canyon Parkway
- Sunset Boulevard and Bluff Street
- 500 North and Bluff Street
- 300 North and Bluff Street
- St. George Boulevard and Bluff Street
- St. George Boulevard and Main Street
- St. George Boulevard and 1000 East
- I-15 Diverging Diamond Interchange at St. George Boulevard
- St. George Boulevard and River Road/Red Cliffs Drive
- 200 East (Skyline Drive) and Red Hills Parkway
- 1000 East and Red Hills Parkway

## Traffic Analysis Software

The basic tools used for the travel demand and traffic operations analyses included the Dixie Metropolitan Planning Organization (DMPO) Regional Travel Demand Model (TDM) and Vissim traffic simulation software from the PTV Group. Vissim is a microscopic traffic simulation software program that is used to perform detailed peak hour traffic operations analysis.

The following table details the analysis type and use of each of the software packages.

**Table 1. Study Software**

Software Package	Use/Analysis Type	Output/Performance Measure
Dixie Cube Travel Demand Model v3.0	Development of future travel demand volumes	Daily and peak hour turning movement volumes, County-Wide Vehicle-Miles-Traveled (VMT)
VISSIM v2020.0-07	Basic Freeway Segments, Weaving Areas	Density, Speed, Percent of Traffic Demand Served
	Ramp Junctions	Density, Speed, Percent of Traffic Demand Served, # of Lane Changes
	Intersections	LOS, Queue Length
	Overall Roadway Network System	Travel Time, Delay, Vehicle Miles Traveled

## Regional Travel Demand Model Overview

Future travel demand forecasts for Washington County were developed using DMPO TDM. The TDM predicts future travel demand based on projections of land use, socioeconomic patterns, and transportation system characteristics. The model is run using the TP+/Cube software. References to “the model” in this report refer to the scripts and data maintained by DMPO, not to the Cube software. At the time of this study, the DMPO official version of the TDM is 3.0, which is calibrated to represent 2019 base year travel conditions and projects traffic out to 2050.

Specific inputs to the model include socioeconomic forecasts and transportation system data. For the DMPO TDM, the Washington County area was broken up into roughly 850 smaller geographical parts called traffic analysis zones (TAZ), which are populated with socio-economic data used for trip generation. The socioeconomic data includes population, households, employment, and average household income. Household data is further classified by household size, number of workers, and average income. Employment data is classified into twelve categories, which include two for public schools. The transportation system data includes both roadway and transit networks. The roadway network includes freeways, arterial routes and collector routes. The transit network includes local bus routes.

The DMPO TDM uses the traditional four-step modeling process consisting of trip generation, trip distribution, mode split, and trip assignment. It includes an auto ownership model to better estimate trip generation and mode split. The model provides a feedback loop during trip distribution, allowing traffic congestion to influence trip distribution patterns.

Existing socio-economic and transportation system data were used to create a base-year (2019) model. Future year forecasts are prepared by running the model using future year socioeconomic and transportation system data.

## WASHINGTON COUNTY POPULATION

Population and employment forecasts used in the DMPO TDM come from The University of Utah’s Gardner Policy Institute, which provides demographic information for the Utah State Legislature and Office of the Governor. The county-level forecasts from the Gardner Policy Institute were then distributed at a city level and ultimately a TAZ level by the DMPO using land-use plans, information provided by local planners, and growth trends. It is forecasted that over the next 30 years the population in Washington County will more than double, with heavy growth expected in Hurricane, St. George’s south block area, Washington City Fields area, Santa Clara, and Ivins. Table 2 shows the population of cities in Washington County between 2010 and 2050.

**Table 2. City Population Growth in Washington County**

City Name	2010	2020	2030	2040	2050
Apple Valley	712	841	1,152	1,470	1,805
Enterprise	1,900	2,206	2,408	3,165	3,886
Hilldale	2,812	3,074	4,546	5,803	7,124
Hurricane	12,697	17,820	26,565	36,990	51,090
Ivins	6,912	11,940	14,867	17,396	20,580
La Verkin	3,844	4,607	5,285	6,747	8,283
Leeds	854	1,023	1,381	1,929	2,551
New Harmony	261	313	422	538	661
Rockville	249	298	402	514	631
Santa Clara	6,182	8,204	11,732	14,975	18,385
Springdale	571	685	924	1,179	1,448
St. George	74,837	96,543	125,576	156,489	177,692
Toquerville	1,061	1,272	2,248	3,311	9,274
Unincorporated	5,250	6,294	8,490	10,837	13,305
Virgin	659	732	864	1,103	1,355
Washington	17,921	28,270	41,509	54,421	68,296
County Total	136,721	184,122	248,443	316,867	386,364

## DISTRICT-TO-DISTRICT TRAVEL DEMAND

A district is a combination of several TAZs that are created to be able to evaluate travel characteristics of larger areas. Using the model’s output for 2019 and 2050, travel demand between District 1 (Ivins, Santa Clara, west St. George, and the Ledges area) and the surrounding districts to the east (Leeds, Toquerville, Washington, Hurricane, and the southeast St. George areas) were compared in order to determine, at a higher level, the expected increase in east-west travel demand across these areas of Washington County between 2019 and 2050 (see Figure 1). As shown in Figure 1, the travel demand between District 1 and the surrounding areas is expected to increase at a similar rate to the population increase with travel demand nearly doubling over the next 30 years.

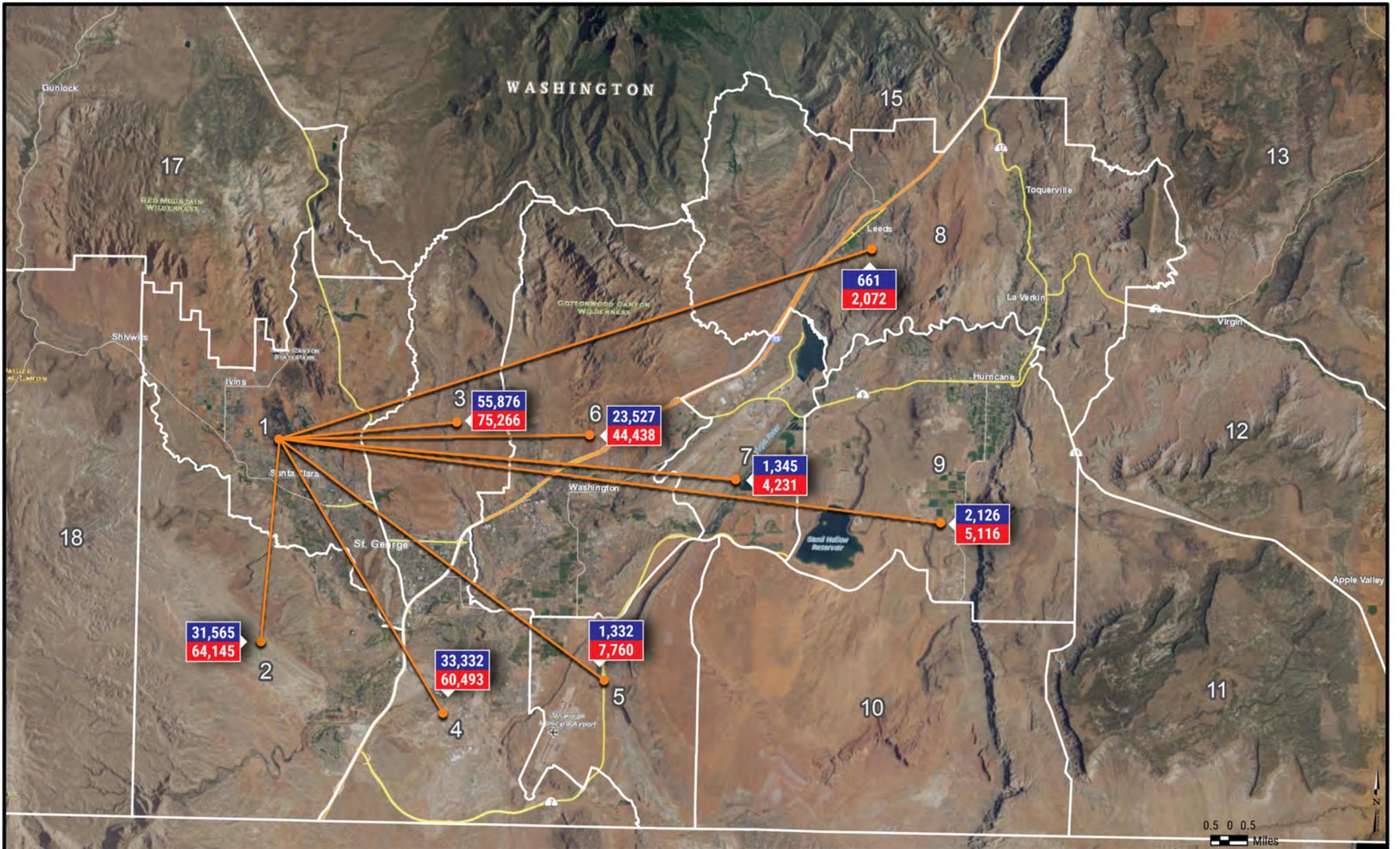
## East-West Screenline

In order to determine how the travel demand increase is expected to translate to surface street traffic, a screenline analysis was performed. A screenline analysis consists of drawing an imaginary line across a section of roadways and summing all traffic that crosses the line. Because of topographic restrictions, a large portion of travel from District 1 is concentrated north of 100 South in St. George along Bluff Street, Red Hills Parkway, and St. George Boulevard. Two screenlines were examined: Screenline A-A, which looks at total east-west travel just west of the St. George Boulevard I-15 interchange, and Screenline B-B, which looks at total north-south travel across Red Hills Parkway, Bluff Street, and Diagonal Street.

As shown in Figure 2, traffic across the screenlines is expected to increase by approximately 55% from 2019 to 2050. At a planning level, a typical travel lane can be expected to accommodate between 5,000 and 7,500 vehicles per day (vpd). In 2050, the average vpd per lane for both screenlines are expected to be around 9,000 vpd per lane.

## 2050 Volume Development

The existing 2019 traffic volumes (adjusted for weekly and seasonal variations) along with the 2019 and 2050 model output data were used for calculating the projected future 2050 volumes per the methodology described in the UDOT document “Utah Travel Demand Forecasting,” which follows Chapter 8 of the National Cooperative Highway Research Program’s (NCHRP) Report 255. This process involves comparing the 2019 model volumes with actual 2019 count data. The difference between the two volumes is used to make an adjustment to the 2050 volumes. This helps to correct for errors in the model where it might be over-predicting or under-predicting volumes. Existing 2019 and estimated 2050 volumes used in the analysis are included in the Appendix.



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**HORROCKS**  
ENGINEERS

555 S. Bluff St. #101  
St. George, Utah 84770  
435-986-7888

## Study Screenlines

DATE	8/22/2019
DRAWN	
Figure 2	

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## Vissim Model Overview

Model Limits - The Vissim model developed for the analysis includes the following corridors:

- Bluff Street (SR-18) from Snow Canyon Parkway to 100 South
- St. George Boulevard from Bluff Street to River Road
- Red Hills Parkway from Bluff Street to the Green Spring Drive
- Red Cliffs Drive between Street George Blvd and Green Spring Drive
- I-15 between Exit 8 (St. George Boulevard) and Exit 13 (Washington Parkway)

Geometry - Roadway geometric features such as the number of lanes, lane widths, and grades were built into the Vissim model using aerial photography, CADD files, and field visits.

Analysis Period - Traffic was modeled for two-hour periods in the PM between 4:00 PM to 6:00 PM. Daily counts collected using pneumatic tubes showed the AM peak hour traffic to be much lower than PM peak hour traffic. Therefore, only PM peak hour analysis was performed for the study.

Vehicle Composition - The vehicle composition, including truck percentages used for the model's vehicle inputs, was determined using a combination of manual traffic counts at the study intersections and PEMS data for mainline I-15. Details of the vehicle composition used for the analysis are contained in the Appendix.

Routing - Origin-Destination pairs used to route vehicles through the model's network were determined by the DMPO TDM and Bluetooth data in the study area. Turning movement ratios were used in areas that were not included in the O-D data collection area.

Signal Timing - Existing conditions were modeled with signal timings obtained from the UDOT Traffic Operations Center Signal Group. Future conditions were modeled with the same general signal timing parameters, but with optimized phasing.

## Vissim Model Calibration

For this project, version 2020-07 of the Vissim microsimulation software was used to model traffic in the study area. A model of the existing geometry and traffic volumes was prepared in order to replicate the typical traffic conditions. The Vissim software is based on two different driving behavior models, the Wiedemann-74 and Wiedemann-99 methodologies. The Wiedemann-74 model is used primarily in urban traffic conditions, and the Wiedemann-99 model is used for inter-urban motorway or freeway conditions. In the study area both types of roadway behavior are present, therefore both methodologies are used. Default Parameters for the Wiedemann-74 methodology are presented in Table 3. Default parameters for Wiedemann-99 are presented in Table 4.

**Table 3. Wiedemann-74 Model Parameters**

Model Parameter	Value
Average standstill distance	6.56
Additive part of safety distance	2.00
Multiplicative part of safety distance	3.00

**Table 4. Wiedemann-99 Model Parameters**

Model Parameter	Value
CC-0; Standstill distance	4.92
CC-1; Headway time	0.90
CC-2; 'Following' variation	13.12
CC-3; Threshold for entering 'Following'	-8.00
CC-4; Negative 'Following' threshold	-0.35
CC-5; Positive 'Following' threshold	0.35
CC-6; Speed dependency for oscillation	11.44
CC-7; Oscillation acceleration	0.82
CC-8; Standstill acceleration	11.48
CC-9; Acceleration with 50 mph	4.92

Criteria used in calibrating the Vissim model was taken from Federal Highway Administration’s (FHWA) Traffic Analysis Toolbox Volume III: Guidelines for Applying Traffic Microsimulation Modeling Software (FHWA, 2004). The calibration uses the GEH statistic to compare observed vs modeled volume flow. The formula used to calculate the GEH statistic is:

$$GEH = \sqrt{\frac{(E - V)^2}{(E + V)/2}}$$

where E equals the modeled volumes and V equals the observed volume.

Based on FHWA’s document the following calibration criteria and targets shown in Table 5 were used.

**Table 5. Calibration Criteria**

Criteria and Measure	Calibration Acceptance Targets	Condition Met?
<b>Hourly Flows, Model Versus Observed</b>		
Within 400 veh/hr, for Flow >2700 veh/hr	> 85% of cases	Yes
Sum of All Link Flows	Within 5% of sum of all link counts	Yes
GEH Statistic < 5 for Individual Link Flows	> 85% of cases	Yes
GEH Statistic for Sum of All Link Flows	GEH < 4 for sum of all link counts	Yes
<b>Travel Times, Model Versus Observed</b>		
Travel Times Within 15%	> 85% of cases	Yes
<b>Visual Audits</b>		
Individual Link Speeds: Visually Acceptable Speed-Flow Relationship	To analyst’s satisfaction	Yes
Bottlenecks: Visually Acceptable Queueing	To analyst’s satisfaction	Yes

The Vissim model was calibrated by testing various combinations of driver behavior parameter adjustments against field measurements and observations. Initial model runs with default values showed congestion levels below what was observed in the field. Queues, particularly around the Green

Spring Drive/Telegraph Street intersection were much lower than field observations. The Vissim Wiedemann-74 default parameters were adjusted up until the model generally matched observed conditions. An additional driver behavior was created for links that had a high degree of side friction from accesses. No adjustments were made to the Wiedemann-99 parameters. Table 6 shows the revised Wiedemann-74 parameters based on the calibrated adjustments:

**Table 6. Revised Wiedemann-74 model parameters**

Model Parameter	Original Value	Adjusted Value	Side Friction
Average standstill distance	6.56	6.56	6.56
Additive part of safety distance	2.00	2.25	2.5
Multiplicative part of safety distance	3.00	3.25	3.5

Based on the comparison of the Vissim model outputs to field measurements (travel times, traffic flows, and speeds) the Vissim model meets the calibration targets and accurately represents PM peak hour conditions for the existing 2019 analysis.

#### Measures of Effectiveness

The primary measure of effectiveness (MOE) used for this study was Level of Service (LOS). LOS is a term used to describe the traffic operations of an intersection, based on congestion and delay, and a freeway, based on density. LOS ranges from A (almost no congestion or delay) to F (traffic demand exceeds capacity and the intersection experiences long queues and delay). LOS D is generally acceptable for urbanized intersections and was used for this analysis. LOS E is the threshold when the intersection reaches capacity. The delay criteria used to assign a letter grade to an intersection for signalized and unsignalized intersections is shown in Table 7 below.

**Table 7. Highway Capacity Manual Intersection LOS Criteria**

LOS	Traffic Conditions	Signalized Average Control Delay (sec/veh)	Unsignalized Average Control Delay (sec/veh)
<b>Acceptable</b>			
A	Free Flow Operations / Insignificant	$0 \leq 10$	$0 \leq 10$
B	Smooth Operations / Short Delays	$10 \leq 20$	$10 \leq 15$
C	Stable Operations / Acceptable Delays	$20 \leq 35$	$15 \leq 25$
D	Approaching Unstable Operations / Tolerable Delays	$35 \leq 55$	$25 \leq 35$
<b>Unacceptable</b>			
E	Unstable Operations / Significant Delays Begin	$55 \leq 80$	$35 \leq 50$
F	Very Poor Operations / Excessive Delays Occur	$> 80$	$> 50$

Table 8 details the LOS thresholds for freeway segments based on the number of passenger cars per mile per lane (pc/mi/ln):

**Table 8. Highway Capacity Manual Interstate LOS Criteria**

LOS	Traffic Conditions	Basic Segment Freeway Density (pc/mi/ln)	Weave Segment Freeway Density (pc/mi/ln)
<b>Acceptable</b>			
A	Free Flow Operations / Insignificant	$0 \leq 10$	$0 \leq 10$
B	Smooth Operations / Short Delays	$10 \leq 15$	$10 \leq 20$
C	Stable Operations / Acceptable Delays	$15 \leq 25$	$20 \leq 28$
D	Approaching Unstable Operations / Tolerable Delays	$25 \leq 35$	$28 \leq 35$
<b>Unacceptable</b>			
E	Unstable Operations / Significant Delays Begin	$35 \leq 50$	$35 \leq 43$
F	Very Poor Operations / Excessive Delays Occur	$> 50$	$> 43$

Another MOE used in the traffic analysis was queueing. The analysis identified the average and 95th percentile queue length for each movement at the study intersections. Queue length is used to identify issues such as queuing between intersections and queues that exceed their available storage.

## **NO BUILD OPERATIONS**

### **Intersection Operations**

The calibrated Vissim model was run under existing (2019), 2030, 2040, and 2050 PM peak hour no-build conditions in order to assess the current and future traffic operations and determine the impacts of not making any modifications to the study area other than those already included in local and regional long-range transportation plans. The following sections detail the operations analysis for the study intersections. Table 9 details the PM peak hour intersection delay and corresponding LOS for each of the study intersections under each of the no-build scenarios.

**Table 9. No Action PM Peak Hour Level-of-Service Alternatives**

Intersection	2019 Existing	2030 No-Action	2040 No-Action	2050 No-Action
RHP/Bluff Street	B	C	C	C
Sunset/Bluff Street	C	D	E	F
SG Blvd/Bluff Street	C	D	E	F
SG Blvd/Main Street	C	C	C	C
SG Blvd/1000 East	D	D	D	D
I-15 Exit 8 SB Ramps	C	C	C	C
I-15 Exit 8 NB Ramps	C	C	C	B
SG Blvd/River Road	D	C	C	D
RHP/200 East	A	A	B	B
RHP/1000 East	C	D	F	F
I-15 Exit 10	C	C	C	C
Green Spring/ Telegraph Street	E	D	D	E
I-15 Exit 13 SB Ramps	A	B	B	B
I-15 Exit 13 NB Ramps	A	A	A	A

As shown in the table, the following intersections are expected to experience failing conditions by 2050:

- Sunset Boulevard and Bluff Street
- Bluff Street and Street George Boulevard
- Red Hills Parkway and 1000 East
- Telegraph Street and Green Spring Drive

Future congested conditions are centered around the primary corridors of Red Hills Parkway, St. George Boulevard, Bluff Street, and Green Spring Drive. The 1000 East/Red Hills Parkway intersection experienced the highest degree of congestion with queues that extended nearly a mile. It should be noted that the congested conditions at several intersections meter traffic such that other intersections that appear to be operating at an acceptable LOS may only be doing so because they do not experience the full travel demand due to the upstream congestion.

## **ALTERNATIVES DEVELOPMENT AND EVALUATION**

As part of the study, eight preliminary alternatives were developed. The eight concepts were evaluated based on their ability to address the study area operational problems discussed under the No-build analysis above. See Chapter 2 of the EIS for a complete description of the alternative development and evaluation process. The eight preliminary alternatives are:

1. Alternative 1: Northern Alignment (North of Cottonwood Wilderness Area)
2. Alternative 2: T-Bone Mesa Alignment
3. Alternative 3: UDOT Application Alignment
4. Alternative 4: Southern Alignment
5. Alternative 5: Red Hills Parkway Expressway
6. Alternative 6: Red Hills Parkway Widening
7. Alternative 7: Street George Boulevard/100 South One-Way Couplet
8. Alternative 8: Street George Boulevard Widening

## **ALTERNATIVES EVALUATION**

Each of the eight alternative concepts, in addition to the no-action alternative, were analyzed using the methodology and software discussed in the previous sections of this memo. The following measurements were calculated for each alternative:

1. Level-of-Service at each of the study intersections using Vissim microsimulation models.
2. Origin-destination travel times between I-15 north of Exit 13 and Sunset Boulevard just west of Bluff Street using three separate routes.
3. Shifts in travel patterns for the major study corridors for each of the NCA corridor alignments.

## **INTERSECTION LEVEL-OF-SERVICE (LOS)**

Table 10 details the LOS for each of the study intersections under each alternative under 2050 PM peak hour conditions. It should be noted that Alternative 7 would have additional impacts to many intersections throughout the downtown St. George area between St. George Boulevard, 100 South, Bluff Street, and River Road in addition to those shown in Table 10. The reconfiguration of St. George Boulevard and 100 South to one-way streets would result in increased travel on most, if not all, of the cross-streets and other parallel streets within this area as vehicles use these streets to travel back and forth between the one-way couplet system to access locations not directly available with the one-way configuration. Analysis indicates that though the volumes on these minor cross-streets would increase, they would still operate at or above the LOS D target operational threshold discussed earlier.

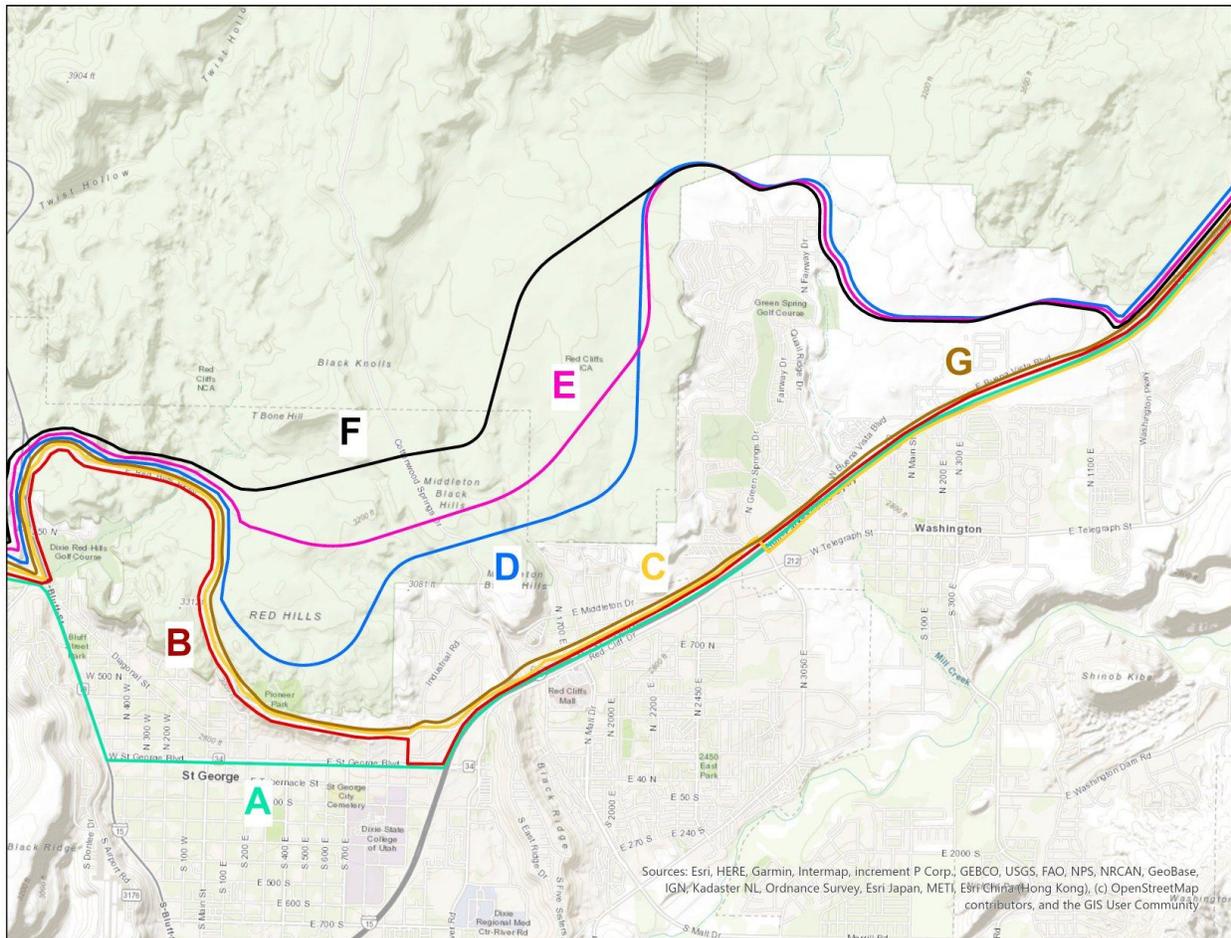
**Table 10. 2050 PM Peak Hour Alternative LOS Comparison**

Intersection	No-Action	Non-NCA: Northern (Alt 1)	NCA: T-Bone Mesa (Alt 2)	NCA: UDOT (Alt 3)	NCA: Southern (Alt 4)	Non-NCA: RHP Expressway (Alt 5)	Non-NCA: RHP Widening (Alt 6)	Non-NCA: SG Blvd/100 S One-way Couplet (Alt 7)	Non-NCA: SG Blvd Widening (Alt 8)
RHP/Bluff Street	C	C	C	C	C	C	C	C	C
Sunset/Bluff Street	F	F	F	E	F	E	E	E	E
SG Blvd/Bluff Street	F	F	D	D	F	C	E	B	D
SG Blvd/Main Street	C	C	C	C	C	C	C	C	C
SG Blvd/1000 East	D	D	C	D	D	C	E	B	D
I-15 Exit 8 SB Ramps	C	C	C	C	C	C	F	C	C
I-15 Exit 8 NB Ramps	B	B	C	C	C	C	C	B	D
SG Blvd/River Road	D	D	D	D	D	D	D	C	D
RHP/200 East	B	B	A	A	B	A	A	B	A
RHP/1000 East	F	F	B	B	F	C	F	C	F
I-15 Exit 10	C	C	C	C	C	C	C	B	C
Green Spring/ Buena Vista	C	C	C	C	C	C	C	D	C
Green Spring/ Telegraph Street	E	E	D	E	E	E	D	E	E
I-15 Exit 13 SB Ramps	B	B	C	B	B	B	B	B	B
I-15 Exit 13 NB Ramps	A	A	B	B	B	A	A	A	A

As shown in Table 10, under each of the alternatives the Sunset Boulevard/Bluff Street intersection operates at LOS E or worse conditions. The Green Spring/Telegraph Street intersection operates at borderline D/E conditions under each of the alternatives. Outside those two intersections, the T-Bone Mesa (Alt 2), UDOT Application (Alt 3), Red Hills Pkwy Expressway (Alt 5), and St. George Boulevard/100 South One-Way Couplet (Alt 7) alternatives improved operations at each of the study intersections to LOS D or better. Associated specifically with Alternative 7 is the additional intersection of Bluff Street/100 South which would also be affected by the one-way couplet. Analysis shows this intersection would operate at LOS C in 2050 (result not shown in Table 10).

## TRAVEL TIMES

Using the Vissim traffic models, origin-destination (O-D) travel times were measured between I-15 north of Exit 13 (Washington Parkway) and Sunset Boulevard just west of Bluff Street using the routes shown in Figure 3.



**Figure 3. O-D Routes**

Table 11 details the results for the O-D travel times. The travel times represent the average amount of time it would take for vehicles to traverse the indicated route during a typical PM peak hour, assuming implementation of each alternative.

**Table 11. 2050 PM Peak Hour Alternatives Travel Time Comparison (minutes)**

Alternative	No-Action	Northern (Alt 1)	T-Bone Mesa (Alt 2)	UDOT (Alt 3)	Southern (Alt 4)	RHP Expressway (Alt 5)	RHP Widening (Alt 6)	SG Blvd/100 S One-way Couplet (Alt 7)	SG Blvd Widening (Alt 8)
Route A	24	24	15	16	21	14	24	14	14
Route B	25	25	15	15	22	15	21	17	20
Route C	40	40	15	16	33	16	16	18	31
Route D	N/A	N/A	N/A	N/A	17	N/A	N/A	N/A	N/A
Route E	N/A	N/A	N/A	15	N/A	N/A	N/A	N/A	N/A
Route F	N/A	N/A	14	N/A	N/A	N/A	N/A	N/A	N/A
Route G	N/A	N/A	N/A	N/A	N/A	12	N/A	N/A	N/A

As shown in Table 11, Alternatives 2, 3, 5, and 7 showed the greatest reductions in travel times in 2050. It should be noted that similar to the LOS discussion earlier, Alternative 7 would have additional travel time impacts to other local streets within the downtown St. George area not reflected in Table 11. This is due to vehicles having to undertake more out-of-direction travel to access the one-way couplet system to get to their destinations.

## NORTHERN CORRIDOR ALIGNMENT COMPARISONS

Further comparisons were made between the three Northern Corridor alignments within the NCA: T-Bone Mesa, UDOT Alignment, and Southern to help understand the subtle differences each of these alternatives have on regional traffic performance. The following sections detail those comparisons.

## AREA OF INFLUENCE

Using the DMPO TDM, heat maps were created showing the area of influence of Alternatives 2, 3, and 4. These are shown in Figures 4-6. The colors represent the various TAZs that are affected by the alternative and to what relative extent they are affected. A darker area would have more trips that are using that particular alternative than a lighter area.

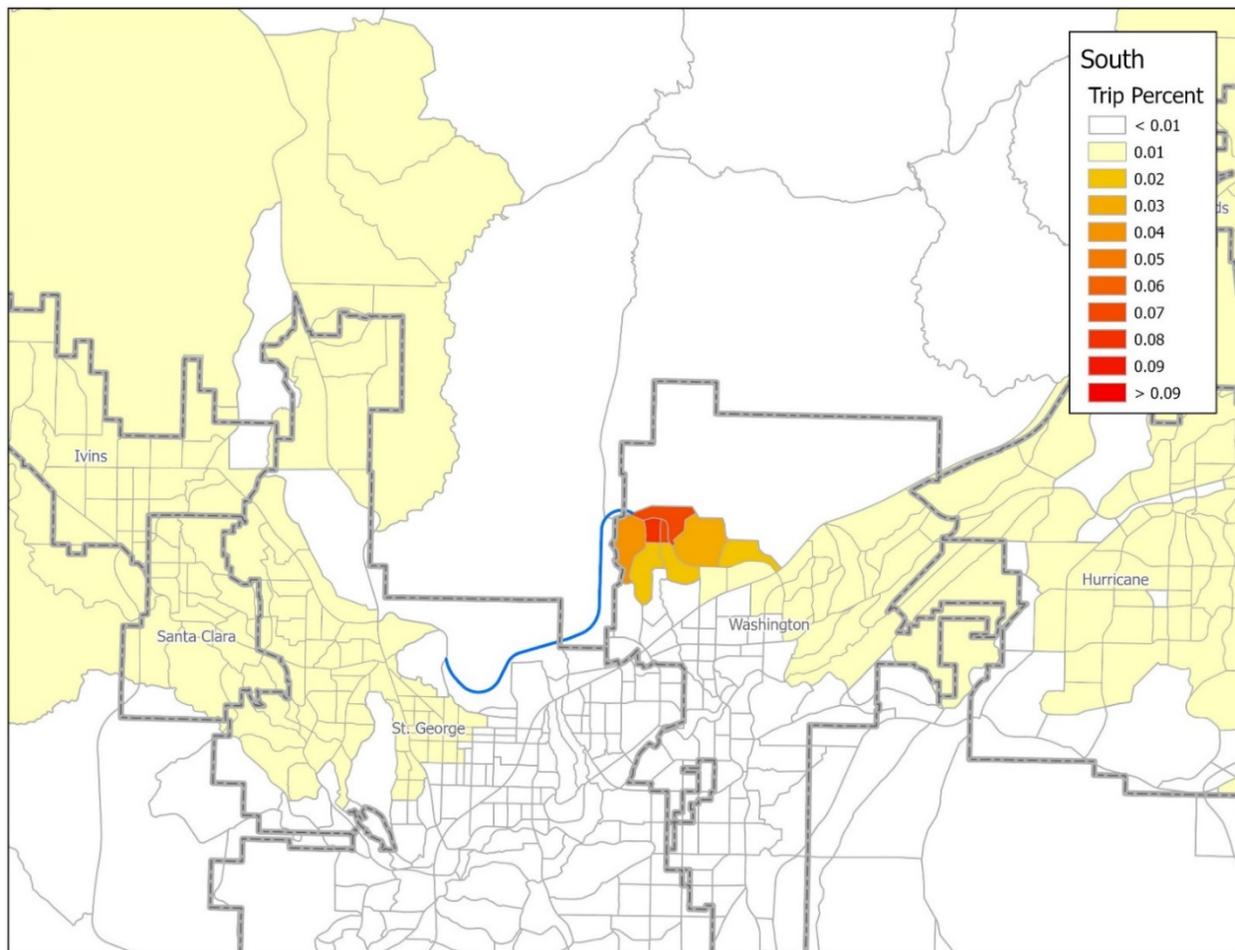
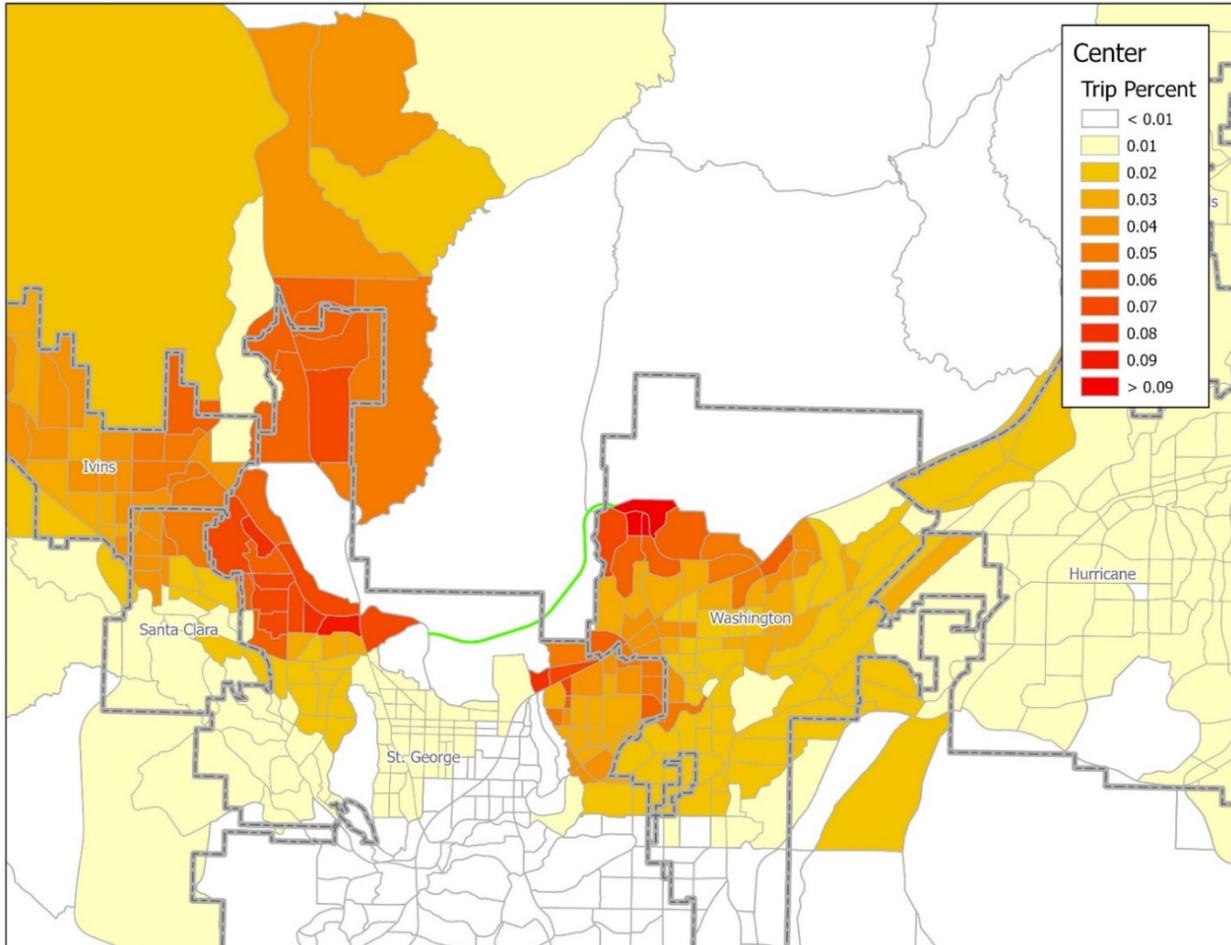


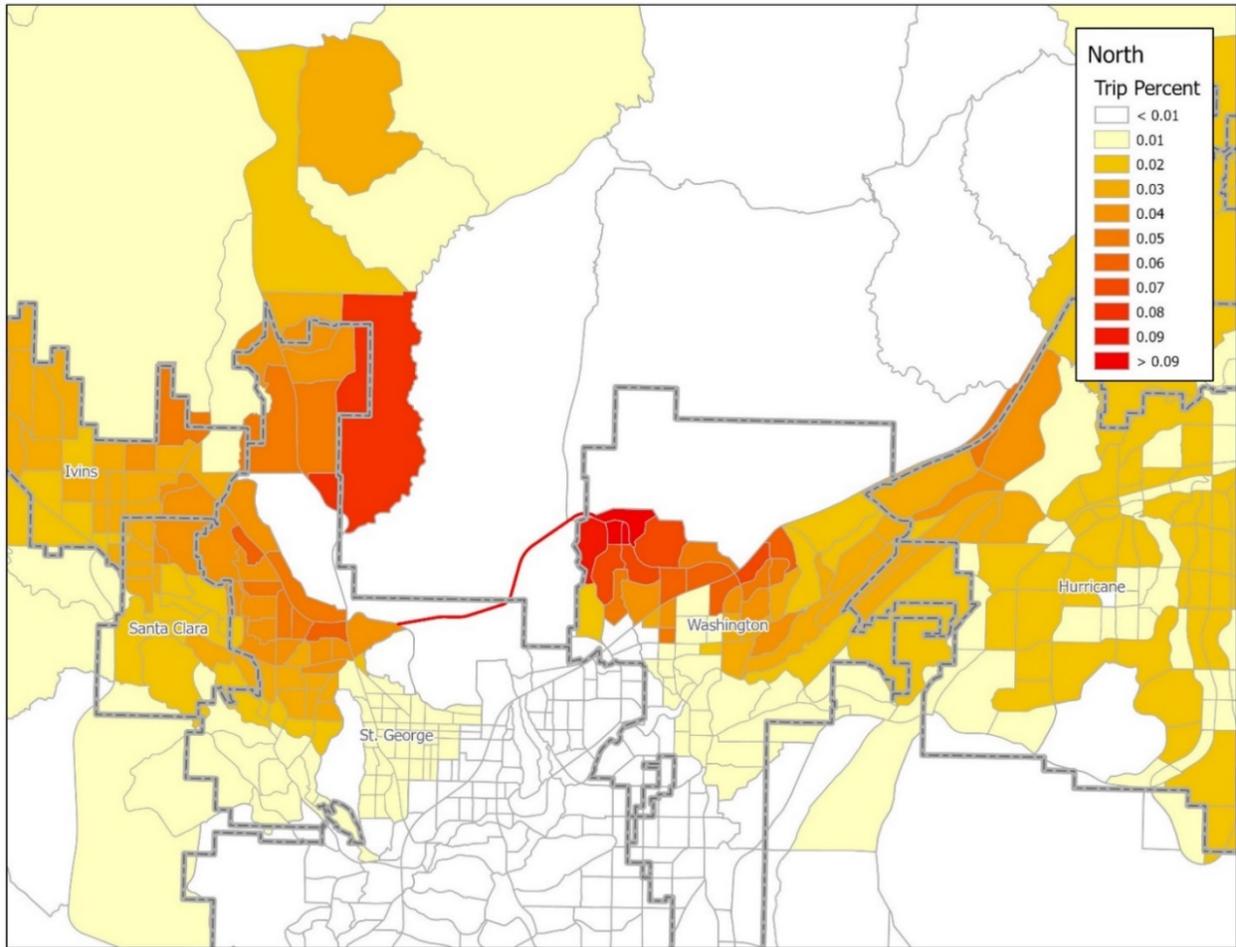
Figure 4. Southern Alignment Area of Influence

As shown in Figure 4, the Southern Alignment primarily serves the Green Springs north area with very little usage from Ivins, Santa Clara, northwest St. George, northeast Washington, Hurricane, and Toquerville.



**Figure 5. UDOT Application Alignment Area of Influence**

The UDOT Application Alignment is 1.5 miles shorter than the Southern Alignment. The shortened distance provides more direct accesses to west Street George, Ivins, Santa Clara, and Washington as shown in Figure 5. There was a large amount of travel between the Washington area and west Street George, Ivins, and Santa Clara via Cottonwood Road and the Northern Corridor.



**Figure 6. T-Bone Mesa Alignment Area of Influence**

As shown in Figure 6, the T-Bone Mesa Alignment provides even more direct east/west access between west Street George, Ivins, and Santa Clara to Washington and Hurricane when compared to the other alternatives, increasing the area of influence in those areas. The T-Bone Mesa alignment, which is further north than the UDOT Alignment, decreased the amount of usage from the Washington area as the extra length of travel on Cottonwood Road caused traffic in that area to use Red Hills Parkway instead.

**DAILY VOLUME COMPARISON**

The anticipated daily volumes for Alternatives 2, 3, and 4 in 2050 are shown in Figure 7. The figure also shows the percent reduction in traffic on the major surrounding corridors associated with each alternative. It should be noted that Alternatives 1, 6, and 8 were not included in this analysis since they did not perform as well as the other alternatives in the previous LOS and travel time studies, and, thus, were eliminated from the daily volume comparisons. As shown in Figure 7, the Southern Alternative is expected to carry approximately 2,000 vehicles per day (vpd) in 2050. The UDOT Alternative carries between 9,000-22,000 vpd and the T-Bone Mesa Alternative carries between 17,000-18,000 vpd.

The Southern Alternative showed between 0%-3% reduction in travel on the major surrounding corridors. The UDOT Alternative showed a reduction ranging between 4%-33%, and the T-Bone Mesa Alternative showed a reduction between 5%-19%. The St. George Boulevard/100 South One-Way Couplet showed a -1% to 17% reduction. The Red Hills Parkway Expressway alternative increases traffic on Red Hills Parkway by 46% and I-15 by 1% while decreasing the remaining corridors by 15% to 20%.

Table 12 provides the average annual daily traffic (AADT) volumes for each of the alternatives for various roadway segments on Bluff Street, Street George Blvd, 100 South, and Red Hills Parkway.

**Table 12. Average Annual Daily Traffic (2050 AADT) Comparison**

Roadway	Segment	2019 AADT	No Action	Northern Corridor (T-Bone Alignment)	Northern Corridor (UDOT Alignment)	Northern Corridor (Southern Alignment)	One-Way Couplet	Red Hills Expressway
Bluff Street	Snow Canyon to Sunset	22,000	31,000	33,000	32,000	31,000	33,000	32,000
Bluff Street	Sunset to Blvd	50,000	65,000	61,000	61,000	63,000	62,000	55,000
SG Blvd	Bluff Street to Main	24,000	26,000	23,000	23,000	25,000	16,000	19,000
SG Blvd	Main to 1000 East	33,000	36,000	34,000	34,000	36,000	26,000	32,000
SG Blvd	1000 East to I-15 Ramps	44,000	55,000	50,000	52,000	55,000	47,000	47,000
Red Hills Pkwy	Bluff Street to Skyline Dr	12,000	31,000	39,000	38,000	32,000	32,000	47,000
Red Hills Pkwy	Skyline Dr to 1000 East	22,000	38,000	28,000	23,000	36,000	38,000	54,000
Red Hills Pkwy	1000 East to I-15 Crossing	11,000	20,000	18,000	22,000	20,000	23,000	24,000
100 S	Bluff Street to Main	9,000	12,000	12,000	13,000	12,000	17,000	11,000
100 S	Main to 1000 East	16,000	24,000	22,000	23,000	24,000	29,000	20,000
100 S	1000 East to River Road	16,000	34,000	32,000	33,000	34,000	27,000	31,000

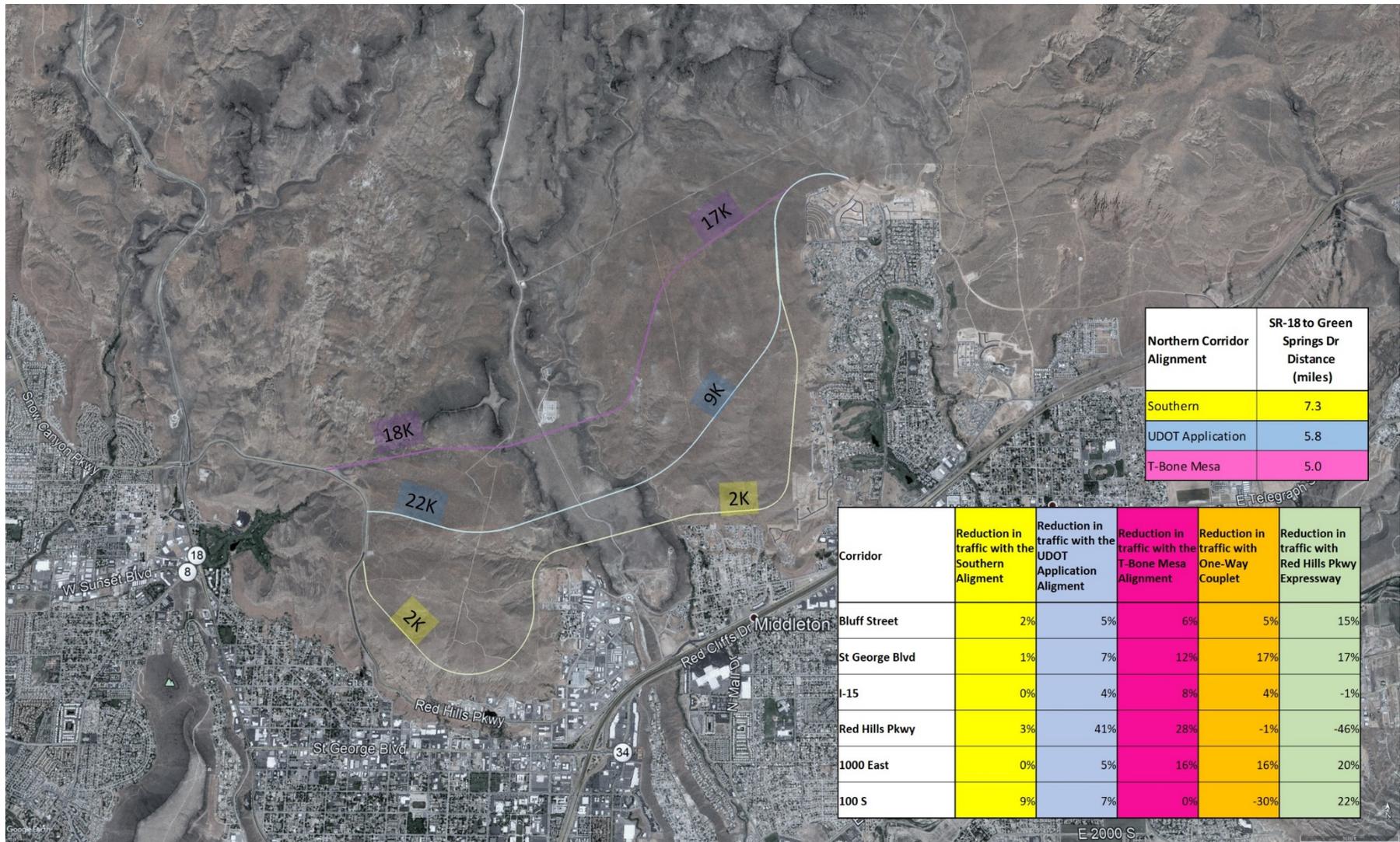


Figure 7. Northern Corridor Daily Volume Comparison

## VEHICLE MILES TRAVELED

Table 13 compares the vehicle miles traveled (VMT) for all of Washington County under each of the alternatives from the DMPO TDM.

**Table 13. Washington County Vehicle Miles Traveled Comparison**

Year	Scenario	Daily	PM Peak Period (4-6 pm)
2019	Base	4,367,738	1,087,122
2050	No Action	10,287,036	2,557,253
2050	T-Bone Alignment (Alt 2)	10,296,900	2,560,121
2050	UDOT Alignment (Alt 3)	10,295,127	2,560,028
2050	Southern Alignment (Alt 4)	10,291,067	2,559,754
2050	Red Hills Expressway (Alt 5)	10,311,945	2,563,923
2050	St. George Blvd/100 S One-Way Couplet (Alt 7)	10,290,984	2,558,499

As shown in Table 13, each of the alternatives increase the overall VMT for Washington County. This is typical with roadway improvements as bottlenecks in the network are removed and people can travel longer distances in shorter amounts of time.

## CONCLUSION

Future growth in Washington County is expected to increase the east-west travel demand across the St. George urbanized area causing unacceptable levels of congestion along key corridors by the year 2050. Several alternatives were evaluated in order to meet the future travel demand. The following alternatives showed substantial improvements to the study corridors:

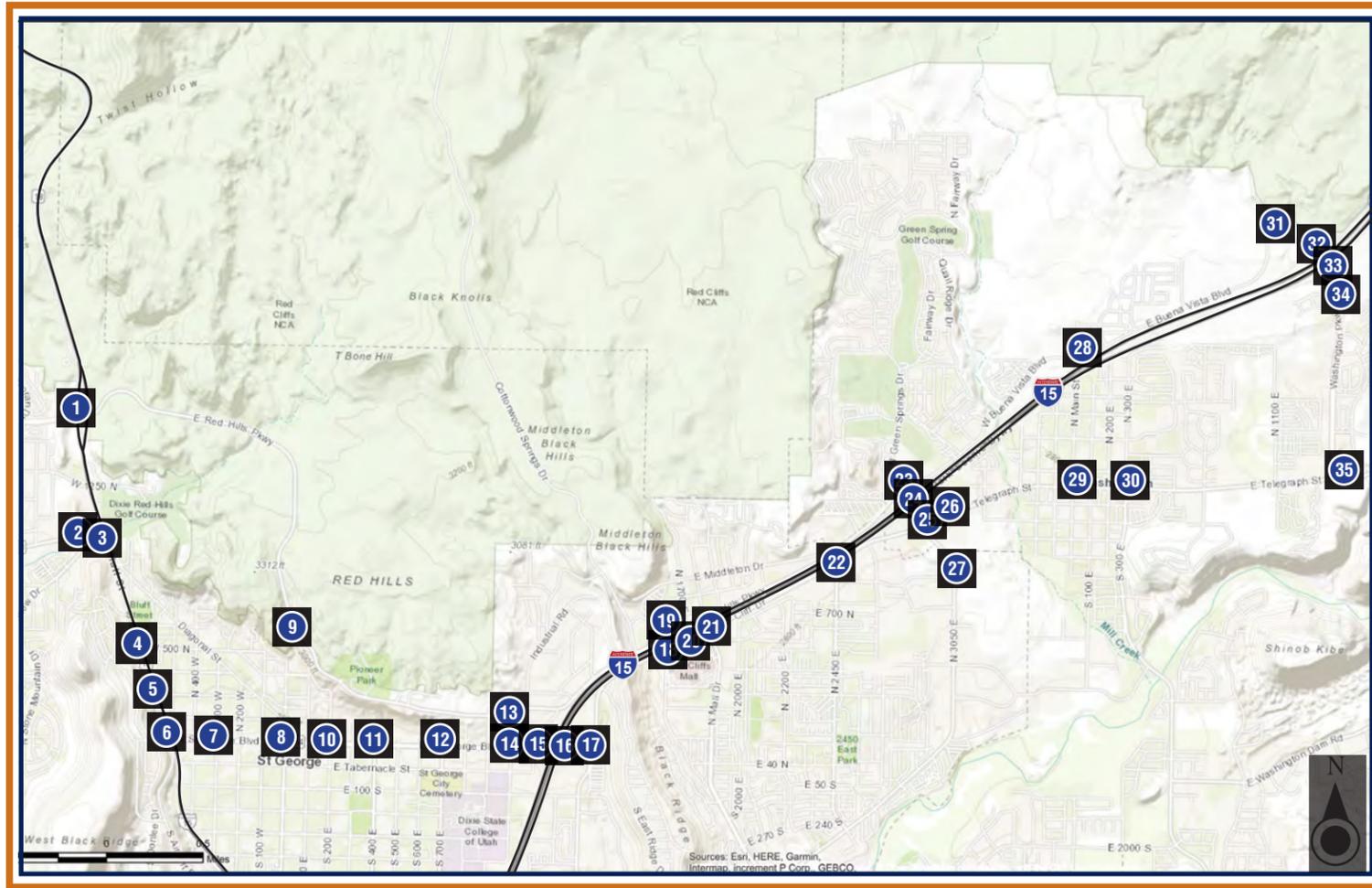
1. Alternative 2: T-Bone Mesa Alignment
2. Alternative 3: UDOT Application Alignment
3. Alternative 5: Red Hills Parkway Expressway
4. Alternative 7: Street George Blvd/100 South One-Way Couplet

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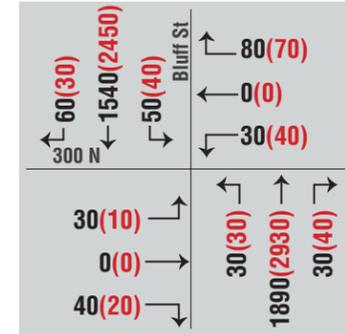
## **APPENDIX**

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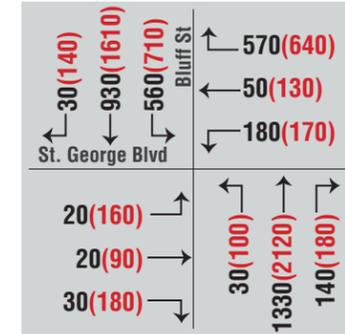
# 2017 (2050) INTERSECTION VOLUMES – PM PEAK HOUR



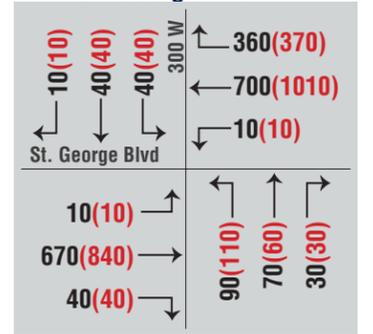
**5** Bluff St & 300 North



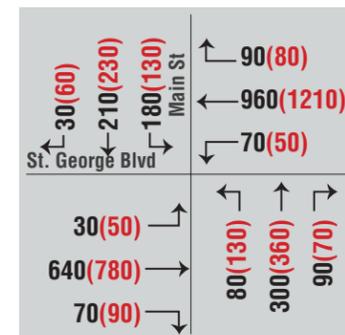
**6** Bluff St & St. George Blvd



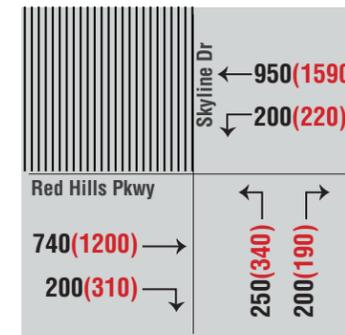
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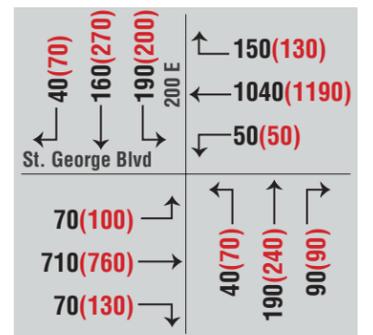
**8** Main St & St. George Blvd



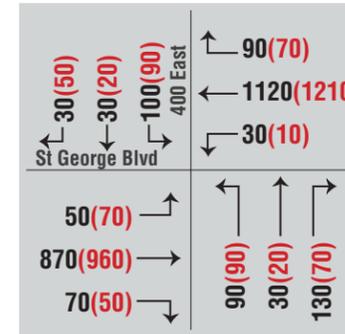
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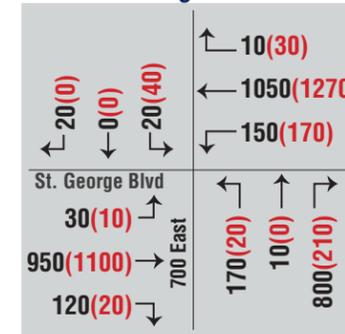
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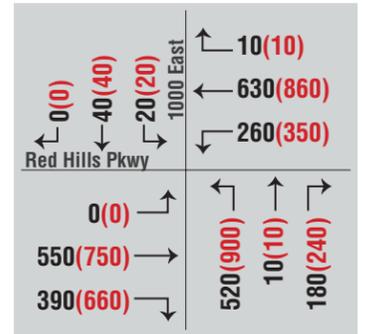
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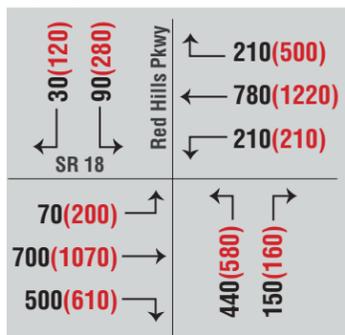
**12** 700 East & St. George Blvd



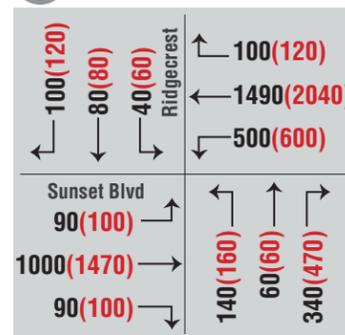
**13** Red Hills Pkwy & 1000 East



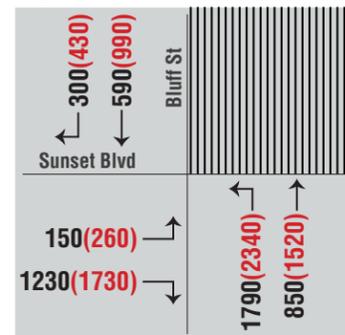
**1** Red Hills Pkwy & SR-18



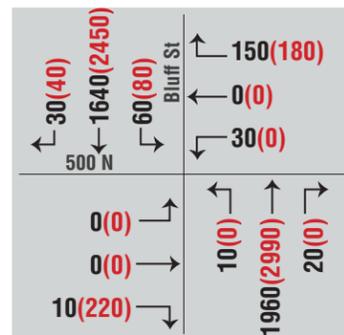
**2** Sunset Blvd & Ridgcrest



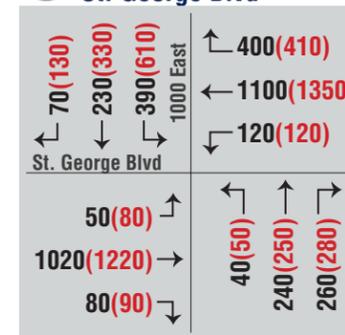
**3** Sunset Blvd & Bluff St



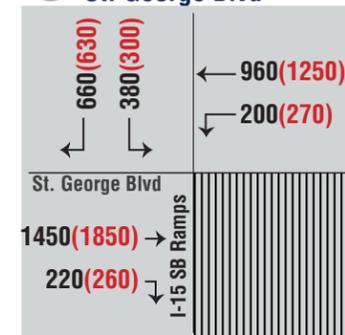
**4** Bluff St & 500 North



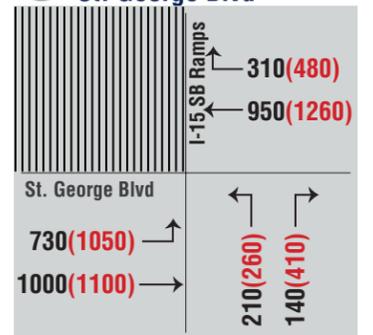
**14** 1000 East & St. George Blvd



**15** I-15 SB Ramps & St. George Blvd

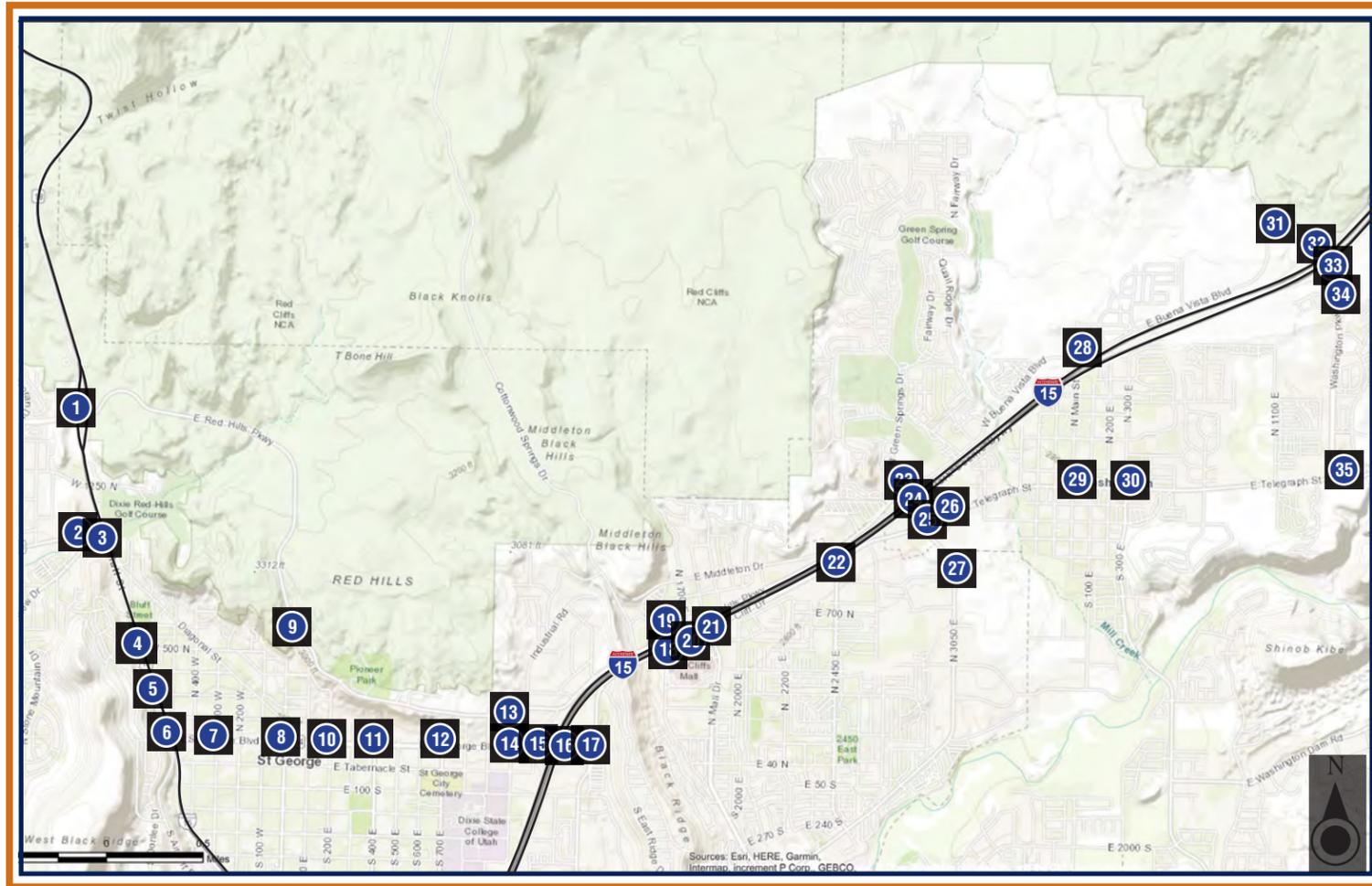


**16** I-15 NB Ramps & St. George Blvd

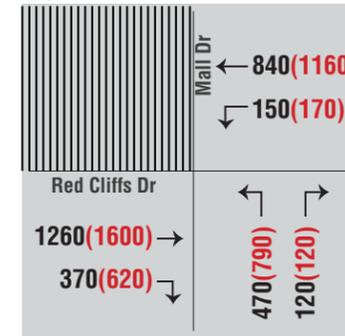


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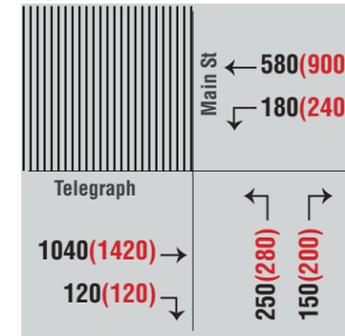
# 2017 (2050) INTERSECTION VOLUMES – PM PEAK HOUR



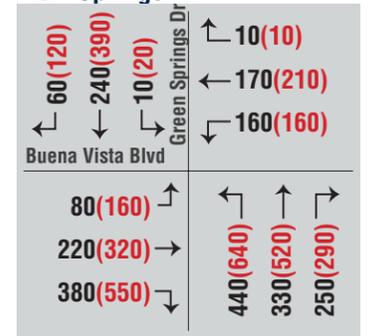
**21 Red Cliffs Dr & Mall Dr**



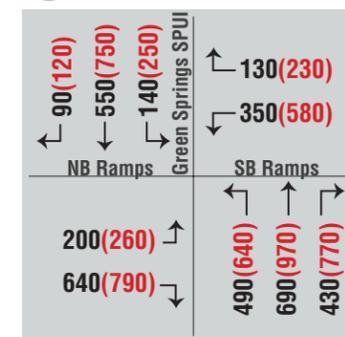
**22 Red Cliffs Dr & 2450 East**



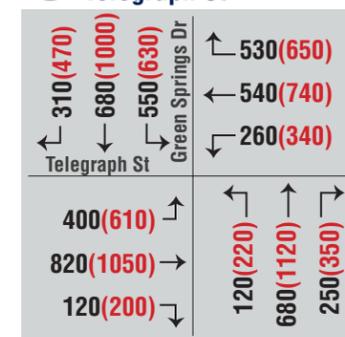
**23 Buena Vista Blvd & Green Springs Dr**



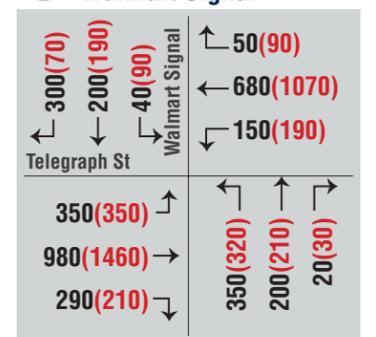
**24 Green Springs SPU**



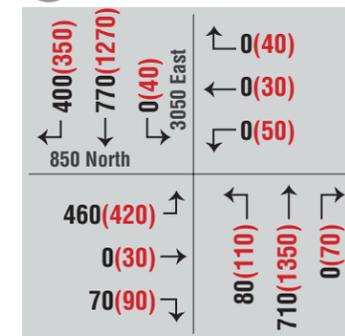
**25 Green Springs Dr & Telegraph St**



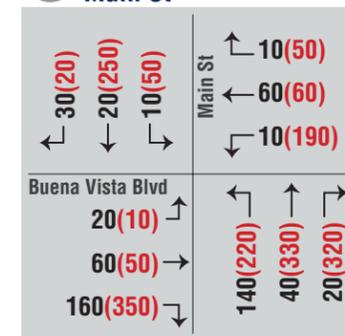
**26 Telegraph St & Walmart Signal**



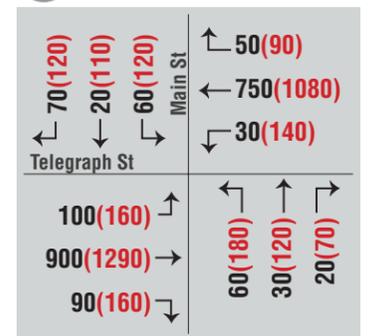
**27 850 North & 3050 East**



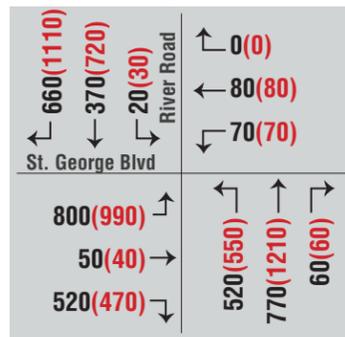
**28 Buena Vista Blvd & Main St**



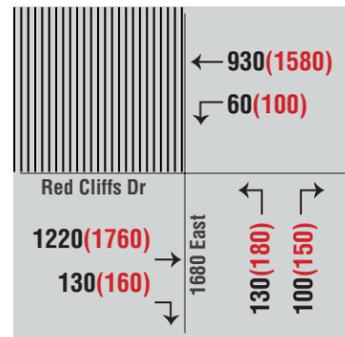
**29 Telegraph St & Main St**



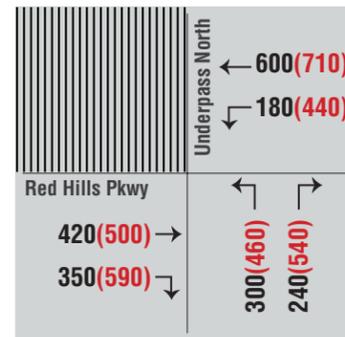
**17 River Road & St. George Blvd**



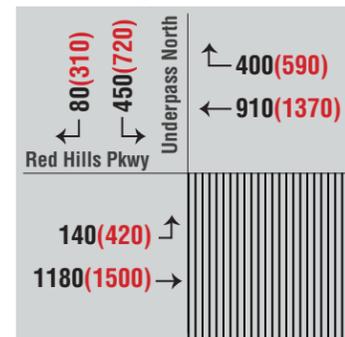
**18 Red Cliffs Dr & 1680 East**



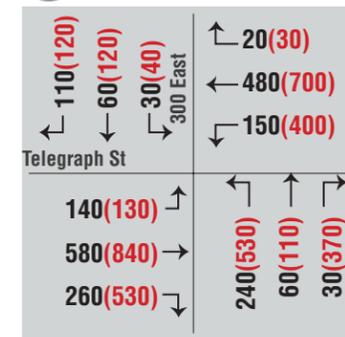
**19 Red Hills Pkwy Underpass North**



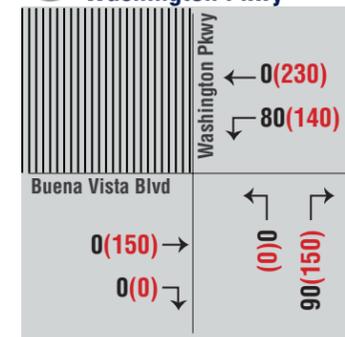
**20 Red Hills Pkwy Underpass South**



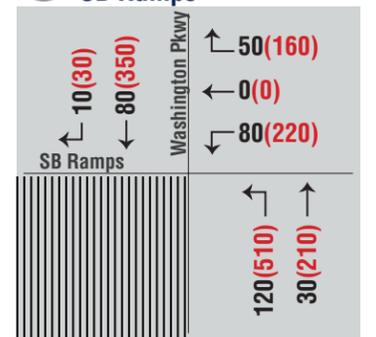
**30 Telegraph St & 300 East**



**31 Buena Vista Blvd & Washington Pkwy**

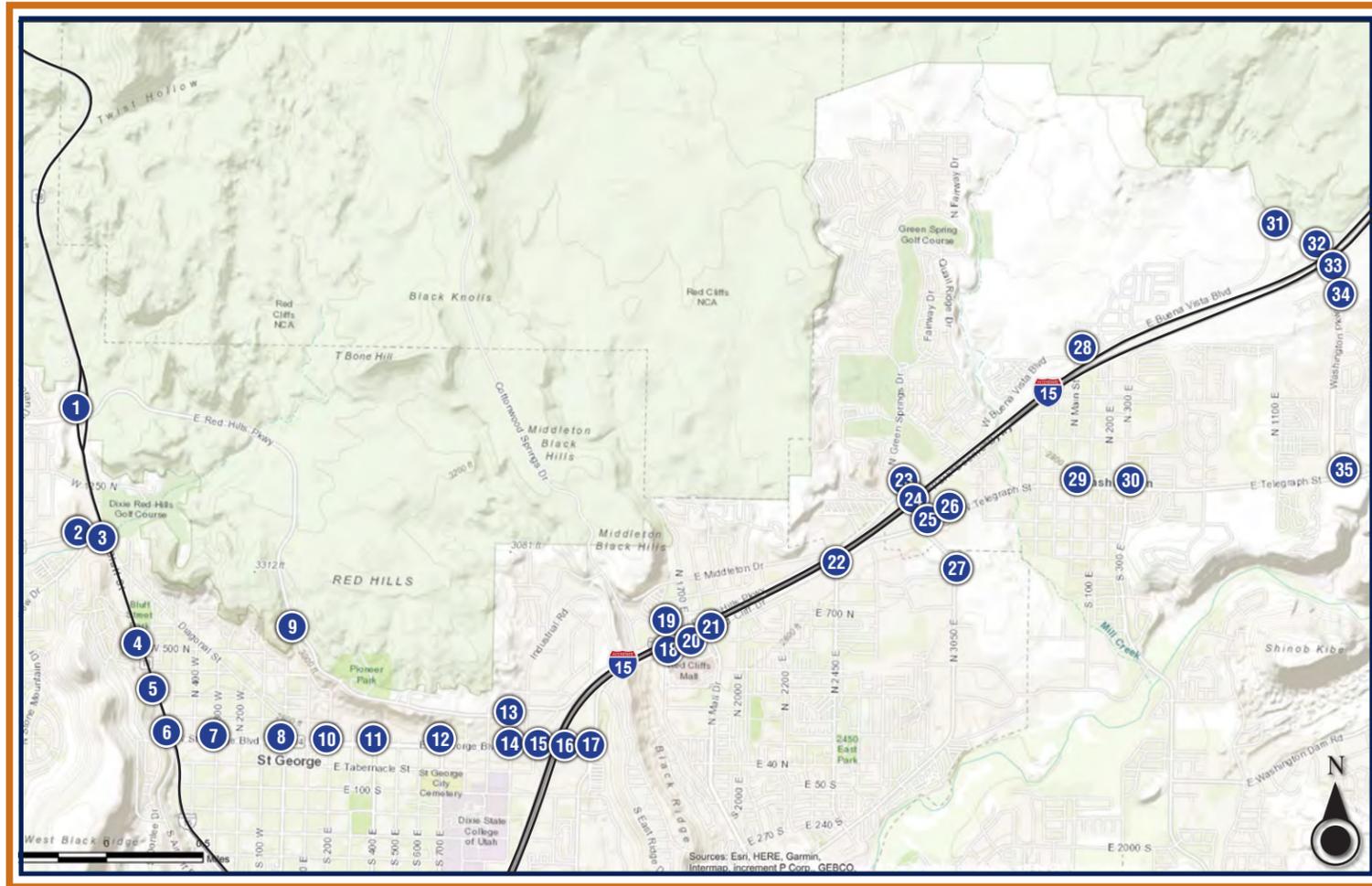


**32 Washington Pkwy & SB Ramps**

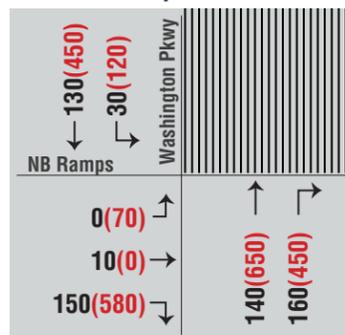


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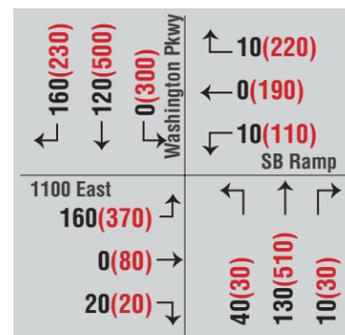
# 2017 (2050) INTERSECTION VOLUMES – PM PEAK HOUR



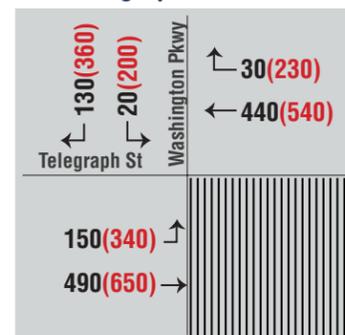
**33** Washington Pkwy & NB Ramps



**34** Washington Pkwy & 1100 East



**35** Washington Pkwy & Telegraph St



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**Appendix M: Visual Impact Assessment Technical Report**

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## Northern Corridor

### Visual Impact Assessment Technical Report

Final

October 2020

Prepared for:  
U.S. Department of the Interior Bureau of Land Management  
Fish & Wildlife Service



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## Acronyms and Abbreviations

BLM	Bureau of Land Management
County	Washington County
EIS	Environmental Impact Statement
FHWA	Federal Highway Administration
HCP	Habitat Conservation Plan
ITP	Incidental Take Permit
KOP	Key Observation Point
NCA	National Conservation Area
Reserve	Red Cliffs Desert Reserve
RMP	Resource Management Plan
ROW	right-of-way
SGFO	St. George Field Office
SITLA	School and Institutional Trust Lands Administration
SQRU	Scenic Quality Rating Unit
UDOT	Utah Department of Transportation
USFWS	U.S. Fish and Wildlife Service
VIA	Visual Impact Assessment
VRI	Visual Resource Inventory
VRM	Visual Resource Management

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## 1. Introduction

The Utah Department of Transportation (UDOT), in association with Washington County (the County), applied to the Bureau of Land Management (BLM) for a right-of-way (ROW) grant on September 18, 2018, to construct a multi-lane, divided highway (referred to as the Northern Corridor) across the Red Cliffs National Conservation Area (Red Cliffs NCA). The Secretary of the Interior, through the BLM, was directed to manage the 45,000-acre NCA to conserve, protect, and enhance the ecological, scenic, wildlife, recreational, cultural, historical, natural, educational, and scientific resources of the Red Cliffs NCA for the benefit and enjoyment of present and future generations, and to allow only those uses of the Red Cliffs NCA that furthered its conservation purposes.

The *Red Cliffs NCA Resource Management Plan* (Red Cliffs NCA RMP), approved in 2016, provides long-term management goals, objectives, and decisions for the Red Cliffs NCA. Granting a ROW to UDOT for a highway that crosses the Red Cliffs NCA is not in conformance with current management decisions from the Red Cliffs NCA RMP. The BLM is using the National Environmental Policy Act of 1969 (NEPA) process to evaluate if the proposed ROW is consistent with the statutory purposes of the Red Cliffs NCA, and whether to amend the Red Cliffs NCA RMP to change the current Red Cliffs NCA RMP management decisions or deny UDOT's application.

The Red Cliffs NCA comprises 70 percent of the land base of a multijurisdictional, 62,000-acre mitigation reserve, known locally as the Red Cliffs Desert Reserve (the Reserve). The Reserve was established in 1995 by the U.S. Fish and Wildlife Service's (USFWS) approval of Washington County's Habitat Conservation Plan (HCP) for the threatened Mojave desert tortoise, and issuance of an Incidental Take Permit (ITP) for the take of Mojave desert tortoise associated with residential and commercial development in the county. The proposed Northern Corridor would not be consistent with the terms of the County's 1995 HCP. The USFWS is working with the County on an Amended HCP to address changed circumstances, one of which might be identifying additional mitigation measures that could address the potential impacts of the Northern Corridor being constructed through the Reserve. The County has also applied for a renewal of the ITP for a 25-year duration. A current proposal by the County would require commitments from the BLM and State of Utah School and Institutional Trust Lands Administration (SITLA) that the management of approximately 6,800 acres of BLM-administered and SITLA lands located west of the City of St. George, Utah, would be modified to emphasize the protection of the Mojave desert tortoise and its habitat. For the BLM to make this commitment, the St. George Field Office (SGFO) RMP (approved 1999) must be amended.

### 1.1 Project Location

The proposed actions would occur in Washington County in the vicinity of St. George (Attachment 1, Map 1-1). The Red Cliffs NCA is located north of St. George. Proposed Reserve Zone 6 consists of undeveloped land on the west side of Interstate 15 (I-15) and the community of Bloomington. The analysis area for the evaluation of impacts on visual resources extends 3 miles from the centerline of each proposed alignment and includes lands within the boundaries of the Red Cliffs NCA; the roadway corridors along Red Hills Parkway, St. George Boulevard, and 100 South in St. George; and the proposed Reserve Zone 6.

## 1.2 Project Description

An Environmental Impact Statement (EIS) is being prepared under NEPA requirements to evaluate the Federal actions under consideration by the BLM and USFWS. The EIS and this Visual Impact Assessment (VIA) identify potential visual impacts associated with the following four Federal actions (BLM 2020):

- 1) Whether the BLM will amend the Red Cliffs NCA RMP to allow for a transportation ROW or ROW corridor within the Red Cliffs NCA.
- 2) Whether the BLM will approve a ROW for an approximately 1.75-mile section of the approximately 4-mile-long Northern Corridor project that crosses the 45,000-acre congressionally established Red Cliffs NCA and the 62,000-acre Reserve.
- 3) Whether the USFWS will issue an ITP for the Mojave desert tortoise for specific land use and land development activities in Washington County.
- 4) Whether the BLM will amend the SGFO RMP to modify management for approximately 533,471 acres within a proposed 6,800-acre mitigation area outside the Reserve and Red Cliffs NCA.

This VIA was prepared in accordance with relevant guidance to address these four Federal actions, and proposes measures (if necessary) to mitigate any resulting adverse visual impacts. This document is formatted to do the following:

- Describe the existing conditions.
- Analyze impacts associated with each of the four actions.
- Determine compliance with BLM Visual Resource Management (VRM) Class objectives.

## 2. Guidance and Regulations Applicable to Visual Resources

The potential transportation alignments analyzed in the EIS for the project would be located on Federal and non-Federal lands. The BLM's VRM Program was used to identify and assess impacts to visual resources on BLM-administered lands in the Red Cliffs NCA and proposed Reserve Zone 6. Because no specific requirements define a visual assessment methodology for private lands, such lands within the Red Cliffs NCA congressionally designated boundary are assessed using the BLM's approach. Much of Alternative 5, which includes modifications to Red Hills Parkway, is located outside the Red Cliffs NCA, as is Alternative 6, which includes modifications to St. George Boulevard and 100 South. Therefore, the Federal Highway Administration (FHWA) visual guidance methodology was used to analyze impacts to Alternative 5 and 6.

### 2.1 BLM

The BLM's VRM system was developed to "manage public lands in a manner which will protect the quality of the scenic (visual) values of these lands" (BLM 1984). In accordance with the 2016 Red Cliffs NCA RMP, the BLM is to manage the Red Cliffs NCA to "conserve, protect, and enhance for the benefit and enjoyment of present and future generations the...scenic...resources of the Red Cliffs NCA" (BLM 2016). The RMP identifies the following overall VRM goal for the Red Cliffs NCA: "The open spaces, natural aesthetics, and scenic vistas of the Red Cliffs NCA are protected for social, economic, and environmental benefits" (BLM 2016).

The VRM system is used for "visual resource inventory, management, and impact assessment," and includes two primary components:

- Visual Resource Inventory (VRI) classes: Measurements of the quality of the visual resource based on the combination of scenic quality, visual sensitivity, and distance zones (BLM 1986a).

- VRM classes: Land use objectives that prescribe the amount of change allowed in the characteristic landscape (BLM 1984).

VRI Class I is reserved for and assigned to inventoried lands where a nondiscretionary land management decision was made by Congress, the President, or Secretary of the Interior that directs the BLM to preserve the natural landscape (e.g., Congressional designation of wilderness). VRI Class II represents the higher scenic values and VRI Class IV, the lower scenic values. The BLM assigns VRI classes for BLM-administered lands based on combining scenic quality classes, sensitivity levels, and distance zone values.

- Scenic Quality Rating Units (SQRU): Scenic quality is a measure of the aesthetic value of the landscape scenery based on analysis of seven key factors: landform, vegetation, water, color, adjacent scenery, scarcity, and cultural modifications. BLM *Manual H-8410-1 – Visual Resource Inventory* identifies three scenic quality classes (Class A, Class B, and Class C) that a landscape may be rated based on the individual rating scores of the seven key factors.
- Sensitivity Level Rating Units: Sensitivity level rating units determine the level of concern the public would express toward modifications in the landscape. They are defined by the types of users, amount of use, public interest, adjacent land uses, special management areas, and other factors (BLM 1986). The BLM assigns land at either a high, medium, or low sensitivity level.
- Distance Zones: Distance zones are subdivided areas of the landscape based on the perception of scenery from viewing locations. Detail visually perceived in the landscape, or project-associated components, depends on the proximity of these features to viewers. The BLM uses three distance zones for the purposes of the VRI, which are primarily based on how landscapes are viewed. The three distance zones are foreground-middleground, background, and seldom seen. The foreground-middleground distance zone includes areas seen from highways, rivers, or other viewing locations less than 5 miles away. Areas seen beyond the foreground-middleground distance zone, but less than 15 miles away, are in the background zone. Areas not seen in the foreground-middleground or background distance zones are in the seldom seen distance zone.

VRI classes are informational only and provide the basis for considering visual values in the RMP process. They do not establish management direction.

Allowable uses and management actions must be planned in accordance with designated VRM classes (BLM no date b). VRM classes are specific land use objectives that provide the standards for planning, designing, and evaluating future management projects; they establish the desired future condition of the visual resource. VRM classes result from considering VRI classes with other resource values and land use allocations. VRM classes are ranked I, II, III, and IV, with Class I being the most protective and Class IV allowing for "major modifications of the landscape." Allowable uses and management actions must be planned in accordance with these desired future conditions (BLM 2015, no date b). Therefore, a BLM landscape can be assigned different classes (e.g., Class II VRI and Class III VRM) for the same area. The BLM VRM classes are defined in Table 1 (BLM 2016).

VRM Class I is designated to lands assigned VRI Class I and other lands where a BLM land use planning decision was made to preserve the landscape's natural character.

**Table 1. BLM VRM Class Definitions**

VRM Class	VRM Definition
I	The existing character of the landscape is preserved. This class provides for natural ecological changes; however, it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention.
II	The existing character of the landscape is retained. The level of change to the characteristic landscape should be low. Changes can be seen but should not attract the attention of the casual viewer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.
III	The existing character of the landscape is partially retained. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.
IV	Provide for management activities that require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements found in the predominant natural features of the characteristic landscape.

## 2.2 FHWA

The FHWA visual assessment methodology was first published in 1988 and updated in 2015. The 1988 guidance included methods for performing a quantitative impacts analysis based on assigning numerical rankings for defined visual quality characteristics. The 2015 guidance, while generally retaining the same general concepts as the original, omitted the numerical ranking procedure. Therefore, this VIA incorporates the phases defined in the 2015 guidance but employs the 1988 methodology in the Analysis Phase to more quantitatively analyze project impacts.

The FHWA visual assessment methodology requires that visual impacts of a proposed project be determined by assessing changes to the landscape as seen both from and toward the road. The methodology also requires descriptions of visual character and visual quality. Visual character is descriptive and non-evaluative (i.e., attributes are neither “good” nor “bad”), and includes descriptive terms such as form, line, color, texture, dominance scale, diversity, and continuity). Visual quality is based on the following three components that are collectively evaluated (FHWA 1988):

- **Vividness:** The visual power or memorability of a landscape as the factors such as terrain, vegetation, water, human-made objects combine in distinctive visual patterns.
- **Intactness:** The visual integrity of the natural and human-built landscape and its freedom from encroaching elements.
- **Unity:** The visual coherence and compositional harmony of the landscape considered as a whole.

Visual quality can be categorized as ranging from very low to very high (FHWA 1988).

The FHWA guidance also calls for identification of landscape units or LUs on a project-by-project basis (the FHWA has not pre-defined formal landscape units). Landscape units are geographic areas on which impacts to visual character, viewers, and visual quality are assessed. Landscape units are defined by

viewsheds and landscape type. A landscape unit has a particular visual identity — it is like a distinctive “outdoor room” — and is visually homogeneous with only one viewshed and one landscape type (FHWA 1988).

The FHWA guidance divides the affected population into highway neighbors (people with views toward the road) and highway users, or travelers (people with views from the road). Each category includes a variety of groups, such as urban and rural residential, recreational, commercial/institutional, and civic neighbors and commuting, touring, shipping, cycling, and walking travelers (FHWA 1988).

## 2.3 Local Plans

Appendix III of *The General Plan of Washington County, Utah, 2010*, comprises *The Washington County Resource Management Plan*; in Section Seven, County Goals and Objectives, it identifies a goal to “preserve, protect, enhance, and make available for public visitation, scenic areas” in the county, with an objective to make these sites “available for visitation and enjoyment by all residents of the county” (Washington County 2010). The General Plan also addresses visual resources under Appendix III, Section Six, Planning Guidelines and Policy Statements. This section states, “different levels of scenic values on federal lands in the county require different levels of management. While management of an area with high scenic value might be focused on preserving the existing character of the landscape, management of an area with little scenic value might allow for major modifications to the landscape. Federal land management agencies shall conduct assessments of visual impacts in determining how an area should be managed, with the goal of protecting the visual resource while not burdening authorized land uses and maintaining economic stability. It is Washington County’s policy in considering VRM objectives, federal and state land management agencies shall recognize the importance of communication sites, electric transmission lines, and transportation corridors to the security, health and welfare of the county’s residents” (Washington County 2010).

The *City of St. George General Plan* notes the scenic nature of the surrounding region, as exemplified by the numerous national parks, forests, monuments, and recreation areas; state parks; and wilderness areas nearby. According to the plan, “the visually striking red sandstone and black lava rock hillsides are significant natural assets to the community. The hillsides and plateaus provide a scenic backdrop to the community and provide the most defining physical characteristics for the area.” The plan states that hillsides comprise an “important visual character that defines the community,” development of which is regulated to protect their visual character. The plan calls for preservation of hillsides by “minimizing the amount of hillside excavation” and requiring “full reclamation to natural appearances” (City of St. George 2002a).

The *City of St. George General Plan* also identifies “scenic areas and views” as “desirable to be preserved as permanent open space.” Such locations include “the steep mesas and hills that frame the city,” particularly “the Red Hill north of St. George” (Washington County no date a). This hill forms a massive rise on the city’s northern boundary from Skyline Drive to North 900 East, upon which Red Hill Parkway, described under Section 3.3, travels east-west.

The 2017 *Washington City General Plan* includes the directive to “analyze the visual impact of potential power-line alignments in conjunction with route selections.” The plan further states, “power-lines should be located in areas that minimize their overall impact on Washington City’s scenic setting” (Washington City 2017).

## 3. Existing Conditions

This section describes the existing visual landscape that would be affected by the proposed project. All maps and photographs referenced in Sections 3.1 through 3.5 are included in Attachment 1. Maps and photographs referenced in Section 3.6 are included in Attachment 2. The photographs depict existing conditions prior to the Turkey Farm Road and Lava Ridge fires (described in more detail under

Section 3.2.1). Because future regrowth of vegetation in the burned area is expected to approximate existing conditions, those photographs were not replaced.

### 3.1 Project Setting

The proposed Federal actions are within the Mojave Basin and Range Ecosystem,<sup>1</sup> which is composed of alluvial fans, valleys, and scattered buttes. Vegetation includes creosote bush, Joshua tree, blackbrush, big sagebrush, and associated grasses (EPA 2019). The desert climate is characterized by low humidity, generally clear skies, relatively warm winters, and hot summers (City of St. George 2002a). Because the study area is within a designated attainment area for all criteria pollutants (EIS Section 3.12), smog is not expected to affect visibility. The roadway alignments analyzed in the EIS are within the south-central portion of the Red Cliffs NCA, abutting the City of St. George to the south. Urban and suburban development is rapidly expanding in the St. George area (EPA 2019), and this development directly abuts the Red Cliffs NCA boundaries on the north side of the city.

### 3.2 Northern Corridor and Red Cliffs NCA RMP Amendments Lands

A visibility map was completed to determine the potential visibility of the roadway alignments from points spaced 100 feet apart along each alternative center line. The farthest edge that people standing on a flat surface with their eyes about 5 feet off the ground can see is approximately 3 miles away (Roland 2019). Therefore, the mapped area (the analysis area, along with proposed Reserve Zone 6) extends 3 miles from the centerline (refer to Attachment 1, Maps 1-2a through 1-2e). The visibility map does not account for the screening properties of vegetation or small variations in topography or structures. Areas within the Red Cliffs NCA and around the Red Hills Parkway comprise the primary areas where the changes in the visual landscape would occur.

As shown in Attachment 1, Map 1-3, the BLM identified the VRI for the analysis area as VRI Class II. The Red Cliff Sandstone SQRU (Class A, the highest on a scale of A to C) comprises the majority of the analysis area except for a swath encompassing Cottonwood Springs Road in the Young Basalt Flows SQRU, which is rated Class C (Map 1-4). The VRI sensitivity level is high and the VRI distance zones are foreground-middleground throughout the analysis area (no maps were developed for these categories as they are uniform throughout the analysis area). Table 2 lists the scenic quality components that comprise the overall scenic quality rating (BLM 1986a):

**Table 2. Scenic Quality Resources**

Scenic Resource	Description
Landform	Topography becomes more interesting as it gets steeper or more massive, or more severely or universally sculptured. Outstanding landforms may be monumental or exceedingly artistic and subtle as certain badlands, pinnacles, arches, and other extraordinary formations.
Vegetation	Primarily considers the variety of patterns, forms, and textures created by plant life, and short-lived displays when known to be recurring or spectacular. Considers smaller scale vegetational features that add striking and intriguing detail elements to the landscape.
Water	Not applicable.
Color	Considers the overall color(s) of the basic components of the landscape (e.g., soil, rock, vegetation) as they appear during seasons or periods of high use. Key factors for rating color are variety, contrast, and harmony.

<sup>1</sup> Ecosystems are areas of general similarity in the type, quality, and quantity of environmental resources (EPA 2019).

Scenic Resource	Description
Adjacent Scenery	Degree to which scenery outside the scenery unit being rated enhances the overall impression of the scenery within the rating unit. The distance which adjacent scenery will influence scenery within the rating unit will normally range from 0 to 5 miles, depending upon the characteristics of the topography, the vegetative cover, and other such factors.
Scarcity	Provides an opportunity to give added importance to scenic features that appear to be relatively unique or rare within one physiographic region. There may also be cases where a separate evaluation of each of the key factors does not give a true picture of the overall scenic quality of an area. Often it is a number of not so spectacular elements in the proper combination that produces the most pleasing and memorable scenery - the scarcity factor can be used to recognize this type of area and give it the added emphasis it needs.
Cultural Modifications	Cultural modifications in the landform/water, vegetation, and addition of structures may detract from the scenery in the form of a negative intrusion or complement or improve the scenic quality of a unit.

Table 3 depicts the breakdown of the scenic quality rating for the analysis area based on the resources listed in Table 2. These components are rated on a scale of 1 to 5, with 5 being the highest quality. (Note that the cultural modifications component can also include negative scores.)

**Table 3. Scenic Quality Rating Red Cliffs NCA Analysis Area**

Scenic Quality Unit Name	Total Acres	Scenic Quality Rating	Land-form	Vegetation	Water	Color	Adjacent Scenery	Scarcity	Cultural Modifications
Red Cliff Sandstone	87,462	A	4.5	2.6	0	4.5	3.4	4	-0.2
Young Basalt Flows	66,417	C	2.6	2	0	2.3	3.1	1.8	-1.1

The Red Cliffs NCA RMP designates the VRM class in the analysis area as VRM Class III (Attachment 1, Map 1-5).

### 3.2.1 Red Cliffs NCA Lands

Through the Omnibus Public Land Management Act of 2009 (P.L.111- 11 at Title I, Subtitle O at sec. 1974(a)), codified at 16 U.S.C. 460www, Congress identified scenic resources as one of nine resources the Red Cliffs NCA was designated “to conserve, protect, and enhance for the benefit and enjoyment of present and future generations.”

As indicated by the Class A scenic quality inventoried in the VRI, the Red Cliffs NCA is a “highly scenic area” consisting of a “colorful and diverse topography” that is “reflected in the stunning visual impact of the Red Cliffs NCA” (BLM 2015). The NCA’s scenic qualities are one of the reasons that new residents choose to move to the area. “The natural character of the Red Cliffs NCA landscape contrasts sharply with the highly modified human environment just outside its boundaries; the proximity of this stunning landscape is often used as a selling point by local realtors” (BLM 2015).

The southern portions of the Red Cliffs NCA include Pioneer Park, a city park directly accessible from Red Hills Parkway (described in more detail following). Pioneer Park is a 52-acre “rock climber’s paradise” that offers “spectacular views of downtown, White Dome, Zion National Park and Arizona” (City of St George

2019) (Photo 1-1 and Photo 1-2). Vivid red rocks form tall buttes, alcoves, hoodoos, and arches in layers of red sandstone creating serpentine cracks and rifts. The tops of these formations offer vast views in all directions (Photo 1-3 and Photo 1-4). This area includes attractions such as “Dixie Sugarloaf” (a prominent red sandstone butte-like rock) and Pioneer Park Arch. Several trails, including the T-Bone Trail and Pioneer Rim Trail, originate here, and some continue north into the Red Cliffs NCA, with T-Bone Trail providing views of Pioneer Arch. The 5-acre Red Hills Desert Garden (Photo 1-5) is directly east of Pioneer Park and includes a labyrinth of paths generally trending east-west between the road and a large redrock outcrop to the north, which blocks views in this direction.

Farther east, Cottonwood Springs Road travels north from Red Hills Parkway into the Red Cliffs NCA. The road and I-15 intersect on the east side of a large red cliff rock cut. Steep cliffs block views as the road gains elevation. The road passes a small industrial area and intersection, eventually flattening with the topography and narrowing. Views broaden and are punctuated by occasional buttes; the Pine Valley Mountains are visible in the distance (Photo 1-6). High sloping hills and abrupt black volcanic mounds are to the west. Vegetation consists primarily of low desert shrubs, which interject green, spiky texture onto a backdrop of red-hued soils and hills. Some locations, such as the Pioneer Hills and T-Bone trailheads, provide views to the north of the Pine Valley Mountains, which rise to heights of 10,365 feet (Photo 1-7). The T-Bone Trail ends approximately 1.8 miles north of Pioneer Park at a trailhead on Cottonwood Springs Road. The T-Bone Trail offers “views of the St. George metropolitan area to the south, a red rock fantasy land in the middle, and views of the distant Pine Valley Mountains to the north” (Washington County no date b).

Within this roadway corridor, which is rated as Class C scenic quality, several conspicuous transmission lines cross Cottonwood Springs Road approximately 1.7 miles north of Red Hills Parkway near the T-Bone Trail trailhead (Photo 1-8). These lines generally travel east to west and consist primarily of brown monopoles of varying heights and girths (Photo 1-9). An electrical substation occupying approximately 7 acres is located on the east side of Cottonwood Springs Road at this location and is directly opposite the T-Bone Trail trailhead (Photo 1-10). A smaller, approximately 1.0-acre substation is 0.15 mile north of the larger one. Transmission lines radiate out from this area in multiple directions and are prominent vertical intrusions on the broad landscape (Photo 1-11). The substations and powerlines particularly contrast against the Pine Valley Mountains to the north (Photo 1-12 and Photo 1-13). The Red Cliffs NCA notes that “these intrusions into the landscape give this area an industrial feel that seems strangely out of place in a generally natural and undeveloped landscape” (BLM 2015).

A large, white water tank is immediately adjacent to the east side of Cottonwood Springs Road approximately 0.85 mile farther north (Photo 1-14). The Middleton Powerline Trail starts just north of the water tank and travels northeast, connecting with Mill Creek Trail (Photo 1-15). A powerline and telephone line run parallel to the road as it continues north, and the road surface changes from paved to dirt after another 0.4 mile (Photo 1-16). The landscape becomes more varied, with black-sided volcanic mounds, red rock cliffs and buttes, and distant purple mountains. The road eventually splits into multiple dirt tracks approximately 9.0 miles north of St. George.

The Red Cliffs NCA also affords users opportunities for nighttime sky viewing. Nighttime sky viewing can be adversely affected by skyglow, defined by the International Dark-Sky Association as “brightening of the night sky over inhabited areas,” to which lights from motor vehicles can contribute. Glare, defined as “excessive brightness that causes visual discomfort,” is another contribution to light pollution (International Dark Skies Association no date). Because of its proximity to urban development, light pollution is visible from many locations within the Red Cliffs NCA. The St. George area currently experiences a relatively high amount of skyglow that extends north into the Red Cliffs NCA (Light Pollution Map 2020). Dark skies maps show that the largest contributing factor to this skyglow is the lights from the urbanized St. George metropolitan area. The 2015 BLM RMP for Red Cliffs NCA states, “Even within the deeper canyons of the Red Mountain and Cottonwood Wilderness areas, the municipal ‘glow’ is clearly evident and much of the night sky is obscured. The cities of St. George, Hurricane, Ivins, Santa Clara,

and Leeds all emit nighttime light that impacts the NCA" (BLM 2015). The skyglow in the area is expected to increase in the future with additional population growth.

Subsequent to the publication of the Draft EIS in July 2020, three wildfires burned within the Reserve: the 11,995-acre Turkey Farm Road fire, the 1,623-acre Cottonwood Trail fire, and the 348-acre Lava Ridge fire. The Turkey Farm Road fire predominantly occurred in areas previously burned by fires in 2005. None of the 2020 burned areas overlap with any of the Northern Corridor alignments, and in regard to the Cottonwood Trail fire, no areas burned would be visible from the analysis area. The Turkey Farm Road fire burned areas north of the Middleton powerline and east of Cottonwood Springs Road. The Lava Ridge fire also burned areas north of the Middleton powerline, occurring on the west side of Cottonwood Springs Road in the Yellow Knolls area. Therefore, these burned areas would be visible from some locations within the analysis area. The powerline and road act as visible demarcations, with blackened vegetation on one side and unburned vegetation on the other. Subsequent rain has resulted in some erosion within the NCA and Reserve where vegetation has been lost. The landscape will display varied degrees of temporary degradation as vegetation re-establishes.

### 3.2.2 Private Lands

Green Springs is a medium-density residential area in Washington City that borders the east side of the Red Cliffs NCA. Green Springs consists of large, new houses arranged into multiple residential estates. Residential development is currently ongoing in the northern end of Green Springs. At the time field studies were conducted to support the development of the EIS in February 2020, home construction was noted in the northern end of this area. Some of the newly completed houses are occupied, with many vacant and for sale (Photo 1-17 and Photo 1-18). Residential development in this area continues east, abutting the future Washington Parkway that trends south and then east, connecting to the Washington Parkway interchange, where the Grapevine Trail trailhead is located (Photo 1-19). The Grapevine Trail provides access to multiple trails and tracks to the north that travel east and west, including trails into the Red Cliffs NCA (Mill Creek Trail, Dino Cliffs Trail). The Cottontail Trail originates at the northwest side of the Green Springs development and travels west into the Red Cliffs NCA, connecting to the Middleton Powerline Trail (Photo 1-20). The Mustang Pass Trail leads north from Green Springs (Photo 1-21), connecting with the Middleton Powerline Trail and Ice House Trail, which climbs a steep hill that provides sweeping views to the south, east, and west (Photo 1-22). Although houses on the west side of Green Springs border the Red Cliffs NCA boundary, views to the west into the Red Cliffs NCA are blocked by high escarpments for many of these residences (Photo 1-23).

New home construction was also noted during the field visit along Cottonwood Springs Road off Twin Lakes Drive, which is accessed from the south end of Cottonwood Springs Road. Residences in Middleton, which is slightly east of this area, also abut the Red Cliffs NCA boundary to the north and west (Photo 1-24). New residential construction was occurring in the northern end of this area as well as farther east between North Main Street and Washington Parkway.

### 3.3 Red Hills Parkway

Located at the northern limits of the City of St. George, Red Hills Parkway is the primary east-west transportation route in the vicinity of the Red Cliffs NCA. The 4-lane road connects with Bluff Street to the west and North Green Spring Drive to the east, where the parkway parallels I-15. From this point, the route continues farther east as Buena Vista Boulevard, terminating at Washington Parkway. Travelers on Red Hills Parkway include commuters, shoppers, recreational users, commercial freight trucks, and tourists. Travelers also include pedestrians and cyclists on Red Hills Parkway Trail.

Two landscape units were defined for the area around Red Hills Parkway in order to apply the FHWA methodology to Alternative 5 (Attachment 1, Map 1-6 and Section 4): LU 1 encompasses the parkway through the undeveloped Red Cliffs NCA on the west side of the analysis area, which has a rural character,

and LU 2 encompasses the parkway to the east, where the landscape is more urban. Both landscape units contain part of the Red Hills Parkway Trail, a paved multi-use path that is part of the St. George trail system, that lies entirely within or along the southern border of the Reserve. The trail offers views of the city to the south and to distant cliffs, buttes, and mountains. The trail also provides access to a large water tank owned by the city, which provides a viewing overlook to the city to the south (Washington County no date a, Caldwell 2013).

### 3.3.1 Landscape Unit 1

The viewshed for LU 1 alternates between views of rock cuts and broad desert expanses. Heading east from Bluff Street, Red Hills Parkway rapidly gains elevation as it cuts through red hillsides (Photo 1-25), after which it levels and provides expansive views of snow-capped mountains, buttes, and desert vegetation before descending southward through more rock cuts to Pioneer Park. The road offers dramatic views of Pine Valley Mountains to the north, Pioneer Park, and sweeping views of St. George to the south, which is at a lower elevation, as well as distant purple hills (Photo 1-26 through Photo 1-29). Because of this area's distinctive features, LU 1 exhibits high levels of natural harmony, landscape composition and vividness, cultural order, and coherence, resulting in high overall visual quality.

A residential area west of the intersection of Red Hills Parkway and Bluff Street is not expected to have views of Red Hills Parkway because of distance and topography. Neighbors farther east along Red Hills Parkway include recreational visitors to Pioneer Park, Red Hills Desert Garden, the water tank overlook, and the Red Hills Parkway Trail. Views of the parkway diminish, and are often blocked, for residents farther south where the topography steeply descends toward the city.

### 3.3.2 Landscape Unit 2

This landscape unit is characterized by broad views of the city to the south, which is at a lower elevation, and commercial and industrial uses to the north, beyond which a tall rock escarpment blocks further views (Photo 1-30 and Photo 1-31). Distant mountains can be seen to the east and west. Commercial uses crowd closer to the road farther east, particularly where Red Hills Parkway meets I-15. East of I-15, Cottonwood Springs Road intersects Red Hills Parkway where it runs parallel to the interstate after passing through a massive rock cut. Visual quality in LU 2 is lower than LU 1 due to the presence of commercial/industrial uses adjacent to the parkway, resulting in degraded coherence and order. Although some views to the south are intact, landscape composition, natural harmony, and vividness are diminished where the built environment blocks views of surrounding natural elements. Therefore, visual quality for LU 2 is moderate.

Neighbors include the employees and patrons of the commercial uses that line both the north and south sides of Red Hills Parkway, but are primarily concentrated to the north.

## 3.4 St. George Boulevard and 100 South Street

St. George Boulevard and 100 South Street travel east-west through central St. George between Bluff Street and I-15. St. George Boulevard is the first east-west through route south of Red Hills Parkway; 100 South Street is two blocks south of St. George Boulevard. Two landscape units were defined for these roads to apply the FHWA methodology to Alternative 6 (Attachment 1, Map 1-6): LU 3 encompasses St. George Boulevard between Bluff Street and I-15 roughly one-half block to the north and south; LU 4 similarly encompasses 100 South.

### 3.4.1 Landscape Unit 3

St. George Boulevard is a two-way, 4-lane paved road that interchanges with I-15. The road is divided by a landscaped median that is narrower at the east end. The landscaping within the median helps soften the built environment, and light fixtures both within the median and at intersections lend a historic look, especially where backdropped against the sky. The light fixtures also add a unifying element to the

corridor. Topography trends slightly downhill to the west, providing views of distant hills and buildings for westbound travelers (Photo 1-32). The landscape character is commercial, consisting primarily of motels and restaurants, with gas stations, small shopping centers, and other retail establishments facing the road. Scale, mass, materials, and architectural style of the buildings and detailing vary greatly. Storefront design range from multistory brick buildings to glass-walled car dealerships, motels of various styles, and single-story utilitarian buildings, particularly at the east end of the road. Streetlights, telephone poles, a few conspicuous palm trees, and commercial signs are the dominant vertical elements. A variety of landscaped shrubs and trees (deciduous and palm) line the sidewalks. Intersections and occasional parking lots provide sporadic views of the red cliffs to the north (Photo 1-33). Traffic is busy, given the I-15 interchange, and consists of a wide range of vehicle types.

The City has implemented efforts to visually enhance this road, paying particular attention to historic aesthetics. The City has identified a "Historic Downtown" area on the west side of St. George Boulevard that includes Ancestor Square on the northwest corner of Main Street, known as "the commercial center of St. George." All of the buildings in Ancestor Square have been renovated and share "a compatible décor to enliven the historical sense of the old city center" (Ancestor Square 2018). The buildings are visually distinctive, such as the 2-story brick Pioneer Courthouse and the 2-story residential Hardy House, with gingerbread trim, white picket fence, and white balustrades. The block between Main Street and 100 East includes a row of historic-style storefronts that create visual interest, and the newly constructed Zion Bank was designed to reflect the area's historical architecture.

The landscape components in LU 3 outside the Historic Downtown are primarily visually unrelated due to the variety of commercial building types that are often dictated by franchises, such as gas stations, chain restaurants, and franchise supply stores and therefore exhibit low memorability. Therefore, visual quality in LU 3 is moderate when considering both this area and the Historic Downtown.

### **3.4.2 Landscape Unit 4**

100 South is a two-way, 2-lane paved road with a continuous center turn lane, and wide parking lanes parallel to both sides of the road (Photo 1-34). The road does not intersect with I-15 but passes under it. Buildings related to education (primarily Dixie State University) face the eastern end of the road, occupying several blocks between I-15 and South 700 East Street, west of which the landscape character becomes residential. The topography trends slightly downhill to the west, providing views of distant hills (Photo 1-35). The St. George city cemetery occupies approximately 1.5 blocks on the north side of 100 South Street in this area. This manicured expanse includes several deciduous and evergreen trees, creating a park-like setting. The residences along this road are modest, rarely exceeding one story and occupying small footprints. Some of the larger homes display a historic design. The St. George Children's Museum at the intersection with Main Street is the southernmost building within the St. George Historic Downtown. The museum is a large, imposing 3-story stone structure. This and the similarly designed Washington County Library System building adjacent to it visually contrast with the residential buildings, displaying a different scale, mass, material, and architectural style. Deciduous trees and low shrubs are the primary natural elements in this landscape unit. Telephone poles and street lights line the road but are inconspicuous. Traffic is light and comprised primarily of cars and pickup trucks.

The majority of the landscape components (the residential buildings) in LU 4 are visually interrelated, although they do not typically form striking or distinctive visual patterns. The large stone buildings add vividness, but contrast with the overall visual intactness and unity of the residential areas within LU 4. For these reasons, memorability is moderate, as is overall visual quality.

## **3.5 Proposed Reserve Zone 6**

The analysis area for visual resources around the proposed Reserve Zone 6 extends 0.5 mile outside the proposed Reserve Zone 6 boundaries to accommodate views into that area. The VRI for proposed Reserve

Zone 6 is identified as VRI Class III primarily on the northern and western areas, and VRI Class IV for the southern and eastern areas (Attachment 1, Map 1-7) (Max 2019, Kiel 2019a). The VRI identified the area contained in the proposed Zone 6 as Class C scenery (primarily the Questa-Forming Shales SQRU with a small section on the east in the Urbanized Lowlands SQRU) and the distance zone as foreground-midground. Visual sensitivity levels in the area range from low to high (Table 4, Map 1-8).

**Table 4. Scenic Quality Rating Proposed Reserve Zone 6 Analysis Area**

Sensitivity Rating	Acres
High	3,442
Medium	1,517
Low	1,854

Approximately 51 percent of proposed Reserve Zone 6 is BLM-administered land (3,471 acres); the BLM-administered land is designated as VRM Class III (Attachment 1, Map 1-9). The remaining land is owned by SITLA (47 percent [3,225 acres]), UDOT (1 percent [70 acres]), and private owners (0.6 percent [40 acres]).

Proposed Reserve Zone 6 consists of a broad, primarily undeveloped desert landscape. A large, sweeping red-hued valley drains toward the Virgin River and is flanked by high cliffs to the north and south. Large boulders and rocks litter the cliffsides and valley floor (Photo 1-36). The ridgelines provide sweeping views in all directions of redrock cliffs, the Pine Valley Mountains, Zion National Park, and St. George (Photo 1-37). Ridgelines consist of pale yellow plateaus stained with black desert varnish, and dotted with scrubby desert vegetation. Ribbons of dry washes crisscross the valley, and a handful of trails wind along the ridgelines. Residential areas abut the proposed Reserve Zone 6 boundary to the east, and a small residential area farther north has views into proposed Reserve Zone 6. No development exists on the west and south sides of proposed Reserve Zone 6.

Numerous social trails crisscross the valley within the Bearclaw Poppy Trail system (Photo 1-38). The Bearclaw Poppy Trail is accessible via two trailheads, one on Navajo Drive west of Bloomington and the other at Canyon View Drive farther north. Mountain bikers frequent this popular trail, which also connects to other trails traveling farther west and north. These trails create visual scars on the valley's soils, particularly where multiple trails are braided (Photo 1-39). As Navajo Drive leaves the residential area and travels farther west into proposed Reserve Zone 6, frequent off-road use has also created visual scars among steep hills (Photo 1-40 and Photo 1-41). Some camp trailers are parked along the road (Photo 1-42), which is crossed by tall transmission towers trending generally north-south. Shooting trash litters the ground at informal pullouts used for target shooting. Some wide, flat areas show evidence of partying and illegal dumping (Photo 1-43). However, the natural environment is visually diverse, with undulating hills in hues ranging from red to orange and gray, and views of distant purple mountains (Photo 1-44).

Moe's Valley rock climbing area is farther north and west of a rapidly developing residential area at Curly Hollow Drive. A broad dirt area serves as unofficial parking. The climbing area is visually secluded from development and is enclosed by undulating canyon walls from which large boulders have fallen. The rounded canyon walls and boulders are a pale yellow and red, and partially covered with black desert varnish. Chalk from climbing on the boulders indicates the presence of popular bouldering routes. Low, spiky pale green and silver vegetation covers the ground where rocks are absent (Photo 1-45 and Photo 1-46).

Residential development to the north off Dixie Drive abuts proposed Reserve Zone 6 and provides recreational access to the area. The Zen Trail is a very popular mountain biking trail that travels up a tilted rock slab. Riders, sometimes comprising large groups, are visible snaking along the trail. A broad, flat dirt area provides unofficial parking. The trail ascends alongside a large cleft within which climbers can be

seen in the Green Valley Gap Climbing Area (Photo 1-47). The cleft offers views of the sweeping valley and distant hills to the southwest, which become more open as riders ascend. Dramatic views of the vivid red rocks of Red Cliffs NCA and purple Pine Valley Mountains are to the west, north, and east. Foreground views include rounded pale yellow sandstone punctuated with sage green scrub vegetation. On the opposite side of the cleft, a large beige water tank is partially obscured by the hill into which it was built and is clearly visible to mountain bikers on the north end of the Bearclaw Poppy Trail in this area (Photo 1-48). A water pipeline originates at the water tank and follows the Bearclaw Poppy Trail east to the Gap trailhead parking lot. An electrical substation to the south of the Zen trailhead just outside proposed Reserve Zone 6 is a visual anomaly and is visible to riders descending the Zen Trail (Photo 1-49). Tall, multistrand transmission lines are conspicuous vertical elements adjacent to the trailhead adjacent to proposed Reserve Zone 6, traveling generally north to south (Photo 1-50). An existing multiphase monopole transmission line extends south from this substation, skirting Moe's Valley to the east, and crossing the Bearclaw Poppy Trail and Navajo Drive farther south. This line is only sporadically visible from the climbing area, but is the tallest vertical element near Navajo Drive, creating an incongruous intrusion within proposed Reserve Zone 6 (Photo 1-51).

### 3.6 Key Observation Points

Key Observation Points (KOPs) are "one or a series of points on a travel route or at a use area or a potential use area, where the view of a management activity would be most revealing" (BLM 1984). KOPs should represent either a typical view from a sensitive viewing location or the range of impacts associated with the project (BLM no date c). Twelve KOPs for this project were selected in consultation with the BLM, as follows (Attachment 2):

- 1) T-Bone Trail looking southwest.
- 2) Green Springs residential area at Mustang Pass trailhead (view at dusk) looking west.
- 3) Red Hills Parkway multi-use path looking east.
- 4) Red Hills Parkway multi-use path looking north.
- 5) City Creek Trail looking northeast.
- 6) Cottontail Trail west of Green Springs residential area looking west.
- 7) Icehouse Trail looking southwest.
- 8) Pioneer Rim Trail looking east.
- 9) Middleton residential area, northwest end of East 1200 North Road looking northwest.
- 10) City Creek Trail looking east.
- 11) Intersection with Cottonwood Springs Road looking south.
- 12) Pioneer Park looking south.

Attachment 2 contains a location map and photographs of each KOP and simulations depicting expected changes resulting from the proposed alternatives as analyzed under Section 4.1.

The photographs and simulations show existing conditions prior to the Turkey Farm Road and Lava Ridge fires (note that not all KOPs would include views of the burned area). Because future regrowth of the burned area is expected to approximate existing conditions (as demonstrated by recovery following the 2005 fire), the before and after images were not revised.

## 4. Visual Impact Assessment

This section describes anticipated impacts resulting from each of the four proposed Federal actions described in Section 1.

## 4.1 Northern Corridor

Under this Federal action, the BLM could approve a ROW for the Northern Corridor that crosses the approximately 45,000-acre congressionally established Red Cliffs NCA and the 62,000-acre Reserve.

### 4.1.1 Proposed Alternatives

A total of six alternatives are being considered for the Northern Corridor and are described in Section 2.2 of the EIS. The alternatives are identified as follows:

- 1) No Action Alternative.
- 2) T-Bone Mesa Alignment.
- 3) UDOT Application Alignment.
- 4) Southern Alignment.
- 5) Red Hills Expressway.
- 6) St. George Boulevard/100 South One-way Couplet.

### 4.1.2 Project Design Features and Components

The T-Bone Mesa Alignment, UDOT Application Alignment, and Southern Alignment share the following common features (Chapter 2 and Appendix D of the EIS contain further details):

- Up to 500-foot-wide ROW.
- 4-lane roadway with two 12-foot-wide travel lanes in each direction, 8-foot shoulders, and a center median.
- A combination of curb and gutter, drainage swales and ditches.
- Bicycle and pedestrian trails.
- Associated signage.
- A new intersection for connection to Red Hills Parkway, as well as a new intersection at Cottonwood Spring Road (also known as Old Dump Road or Turkey Farm Road).

### 4.1.3 Construction and Phasing

Based on funding or traffic demand, construction may be phased by building one lane in each direction, with subsequent phases adding another lane, accompanying trails, and any cross-street connections. Construction would be completed using established highway construction practices, standards, and specifications with special provisions added, as required.

Staging areas would be located within the ROW granted to UDOT. The exact locations would be determined during final design.

After construction, the site would be stabilized using erosion and sediment control measures, topsoil placed over fill material, and seeding of a BLM-approved seed mixture to establish vegetation. UDOT will manage long-term project operation and maintenance.

### 4.1.4 Avoidance, Minimization, and Mitigation Measures

The BLM VRM Visual Contrast Rating Process states that mitigating measures should be prepared for all adverse contrasts that can be reduced (BLM 1986b). The following features were incorporated into project design to minimize visual impacts (Appendix D of the EIS contains further details):

- Grade roadway and adjacent slopes according to BLM and UDOT specifications.
- Paint all facilities a color that best allows the facility to visually blend with the background.

- Design any lighting proposed for the roadway to reduce impacts to dark night skies. These measures may include directing all light downward, using shielded lights, using only the minimum illumination necessary, using lamp types, such as sodium lamps (less prone to atmospheric scattering), using circuit timers, and using motion sensors.
- Reclaim site, including clean-up of construction materials, establishment of clear zone adjacent to the roadway that is free of trees and other ground protrusions, and placement of topsoil.
- Revegetate site according to BLM and UDOT specifications, including reseeding with BLM-approved seed mixes and planting requirements established by Washington County and City of St. George.
- Prepare a Fugitive Dust Control Plan in coordination with the Utah Department of Air Quality.
- Prepare a Blasting Plan.
- Prepare a Noxious Weed Management Plan.

The following measures identified by the BLM in Appendix 3 of *Manual 8431 – Visual Resource Contrast Rating* (BLM 1986b) as techniques to consider were also considered in development of the alignments, incorporated into project design, or both, to reduce visual impacts (Appendix D of the EIS contains further details):

**Table 5. BLM Sample List of Design Techniques for Mitigating Visual Impacts**

Landform or Water Body	Vegetation	Structures
<ul style="list-style-type: none"> <li>• Reduce Size of Cut and Fill Slopes:               <ul style="list-style-type: none"> <li>– Relocate to an area with less slope.</li> <li>– Change road width and grade.</li> <li>– Change alignment to follow existing grades.</li> <li>– Prohibit dumping of excess material on downhill slopes.</li> </ul> </li> <li>• Reduce Earthwork Contrasts:               <ul style="list-style-type: none"> <li>– Round or warp slopes.</li> <li>– Retain rocks, trees, and drainage.</li> <li>– Tone down freshly broken rock faces with asphalt emulsion spray or with gray point.</li> <li>– Add mulch, hydromulch, or topsoil.</li> <li>– Shape cuts and fills to appear as natural forms.</li> <li>– Cut rock areas so forms are irregular.</li> <li>– Design to take advantage of natural screens (vegetation, land forms).</li> <li>– Grass seed cuts and fills.</li> </ul> </li> <li>• Maintain Integrity of Topographic Units:               <ul style="list-style-type: none"> <li>– Design projects to blend with topographic forms in shape and placement.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Retain Existing Vegetation:               <ul style="list-style-type: none"> <li>– Use retaining walls on fill slopes.</li> <li>– Reduce surface disturbance.</li> <li>– Protect roots from damage during excavations.</li> </ul> </li> <li>• Enhance Revegetation:               <ul style="list-style-type: none"> <li>– Mulch cleared areas.</li> <li>– Control planting times.</li> <li>– Furrow slopes.</li> <li>– Plant holes on cut and fill slopes.</li> <li>– Choose native plant species.</li> <li>– Stockpile and reuse topsoil.</li> <li>– Fertilize, mulch, and water vegetation.</li> </ul> </li> <li>• Minimize Impact on Existing Vegetation:               <ul style="list-style-type: none"> <li>– Partial cut instead of clear cut.</li> <li>– Use irregular clearing shapes.</li> <li>– Feather or thin edges.</li> <li>– Dispose of all slash.</li> <li>– Control construction access.</li> <li>– Utilize existing roads.</li> <li>– Limit work within construction area.</li> <li>– Select type of equipment to be used.</li> <li>– Minimize clearing size (strip only where necessary).</li> <li>– Grass seed cleared areas.</li> </ul> </li> <li>• Maintain the Integrity of Vegetative Units:               <ul style="list-style-type: none"> <li>– Utilize the edge effect for structure placement along natural vegetative breaks.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Minimize Structure Contrast:               <ul style="list-style-type: none"> <li>– Use earth-tone paints and stains.</li> <li>– Use Corten steel (self-weathering).</li> <li>– Treat wood for self-weathering.</li> <li>– Use natural stone surfaces.</li> <li>– Bury all or part of the structure.</li> <li>– Select paint finishes with low levels of reflectivity (flat or semigloss).</li> </ul> </li> <li>• Redesign Structures that do not Blend/Fit:               <ul style="list-style-type: none"> <li>– Use rustic designs and native building materials.</li> <li>– Use natural appearing forms to complement landscape character (use special designs only as a last resort).</li> </ul> </li> <li>• Minimize Impact of Utility Crossings:               <ul style="list-style-type: none"> <li>– Make crossings at right angles.</li> <li>– Set back structures at a maximum distance from the crossing.</li> <li>– Leave vegetation along the roadside.</li> <li>– Minimize viewing time.</li> <li>– Utilize natural screening.</li> </ul> </li> <li>• Recognize the Value and Limitations of Color:               <ul style="list-style-type: none"> <li>– Consider that color (hue) is most effective within 1,000 feet, beyond which color becomes more difficult to distinguish and tone or value determines visibility and resulting visual contrast.</li> <li>– Consider that using color has limited effectiveness (in the background distance zone) in reducing visual impacts on structures that are silhouetted against the sky.</li> <li>– Paint structures somewhat darker than the adjacent landscape to compensate for the effects of shade and shadow.</li> <li>– Select color to blend with the land and not the sky.</li> </ul> </li> </ul>

#### 4.1.5 Impacts Analysis

This analysis is performed as follows:

- 1) Applies the BLM VRM System to do the following:
  - a) Identify visual impacts to landscape character and views from sensitive viewing locations.
  - b) Determine consistency with BLM VRM classes identified in the Red Cliffs NCA RMP for Northern Corridor Alternatives B, C, and D.
- 2) Applies the FHWA VIA guidance to identify visual impacts for Northern Corridor Alternatives E and F as viewed by neighbors (views toward the road) and travelers (views from the road).

Analysis of the proposed new roadway ROW in the Red Cliffs NCA is based on BLM's VRM system, which provides a framework for managing visual resources on BLM-administered lands, and FHWA's *Guidelines for the Visual Impact Assessment of Highway Projects*, which is used to analyze visual impacts of roadway projects. The BLM's VRM system was used to evaluate the T-Bone Mesa Alignment, UDOT Application Alignment, and Southern Alignment because they would traverse lands within the Red Cliffs NCA. The FHWA guidance was used to evaluate Red Hills Expressway and St. George Boulevard/100 South One-way Couplet because they would modify existing roads outside BLM jurisdiction. Where appropriate, overlapping methods were combined into one to simplify the evaluation.

##### 4.1.5.1 BLM VRM System

The following steps in the BLM's VRM system were used to evaluate the T-Bone Mesa Alignment, UDOT Application Alignment, and Southern Alignment (Figure 1; BLM no date d):

- 1) Obtain project description (see Section 1.2).
- 2) Describe VRM objectives (see Section 2.1).
- 3) Select KOPs.
- 4) Prepare visual impact simulations.
- 5) Complete the BLM contrast rating form to evaluate visual impacts and determine whether the project conforms to the VRM class objectives.
- 6) Identify mitigation measures, if necessary.



**Figure 1. BLM General Visual Contrast Rating Process**

Source: BLM no date d

Steps 1 and 2 were discussed in Section 1.2 and Section 2.1. Steps 3 through 6 are discussed in this section.

The BLM identifies visual impacts as “changes to the scenic attributes of the landscape brought about by the introduction of visual contrasts (e.g., development) and the associated changes in the human visual experience of the landscape” (BLM no date e). The BLM defines an adverse visual impact as “any modification in land forms, water bodies, or vegetation, or any introduction of structures, which negatively interrupts the visual character of the landscape and disrupts the harmony of the basic elements” (BLM 1984). The outcome of this analysis confirms whether the potential visual impacts will meet the BLM's VRM class objectives and allowable level of change established for the area, or if design adjustments or additional visual impact mitigation will be required.

## Impacts Analysis Methodology

The BLM's Visual Contrast Rating process is used to analyze potential visual impact of proposed projects and activities (BLM 1986b). Per BLM *Manual 8431 – Visual Resource Contrast Rating* (BLM 1986b), “the degree to which a management activity affects the visual quality of a landscape depends on the visual contrast created between a project and the existing landscape. The contrast can be measured by comparing the project features with the major features in the existing landscape. The basic design elements of form, line, color, and texture are used to make this comparison and to describe the visual contrast created by the project.”

The contrast rating is based on the most critical viewpoints, referred to as KOPs (defined in Section 3.6). KOPs are usually located along commonly traveled routes or at other likely observation points. Factors that should be considered in selecting KOPs are angle of observation, number of viewers, length of time the project is in view, relative project size, season of use, and light conditions.

Linear projects should be rated from several viewpoints representing the following (BLM 1986b):

- Most critical viewpoints; for example, views from communities and road crossings.
- Typical views encountered in representative landscapes, if not covered by critical viewpoints.
- Any special project or landscape features such as skyline crossings, river crossings, and substations.

The existing landscape and any resulting degree of change is determined for each KOP based on a photograph of the existing landscape and a photo-simulation of the proposed project. The difference is described by degrees of contrast: strong, moderate, weak, or none (BLM 1986b, no date d):

- None: The element contrast is not visible or perceived.
- Weak: The element contrast can be seen but does not attract attention.
- Moderate: The element contrast begins to attract attention and begins to dominate the characteristic landscape.
- Strong: The element contrast demands attention, will not be overlooked, and is dominant in the landscape.

Numeric values were assigned along a continuum from 0 (none) to 7 (very strong) to determine the degree of contrast in order to apply a consistent impact analysis with the FHWA system (Section 4.1.5.2). These four levels of contrast roughly correspond with VRM Classes I, II, III, and IV, respectively. This means that a “strong” contrast rating may be acceptable in a VRM Class IV area but would not likely meet the VRM objectives for a VRM Class III area. A proposed project meets the VRM objective if all degrees of contrast are equal to or less than the highest degree of contrast or change to the existing condition allowed for the objectives of that class (BLM no date d).

## Consistency with VRM Class Objectives

Consistency with VRM class objectives was identified for the T-Bone Mesa Alignment, UDOT Application Alignment, and Southern Alignment based on results of the impacts analysis. Although the BLM cannot assign VRM classes to lands not managed by the agency, the VRM decisions made for public lands in the Red Cliffs NCA were logically extrapolated to adjacent non-public lands for the purposes of this analysis. This was done for the purposes of continuity and allows for consistent analysis of visual resources across the entire analysis area.

In addition, general numbers and locations of residences and recreational facilities that contain sensitive viewers who would see the inconsistencies were identified.

#### 4.1.5.2 FHWA System

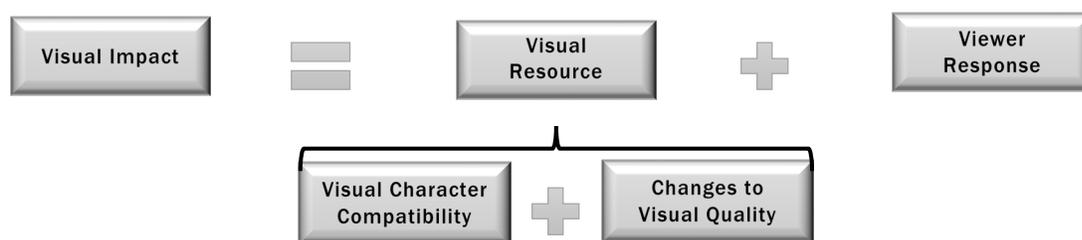
Steps in the FHWA's process that were used to evaluate Red Hills Expressway and St. George Boulevard/100 South One-way Couplet fall under the following phases (FHWA 2015):

- 1) Establishment Phase: Define the character of the project's visual features, determine the regulatory context, and define the area of visual effect (see Sections 1 through 3).
- 2) Inventory Phase: Describe the affected environment, affected population, and existing visual quality (Section 3.3 and Section 3.4); establish key views.
- 3) Analysis Phase: Assess visual impacts.
- 4) Mitigation Phase: Identify effective mitigation.

Steps 1 and 2 are discussed under Sections 1 through 3. Remaining steps are discussed in this section.

#### Impacts Analysis Methodology

For this VIA, Step 3 incorporates the 1988 FHWA methodology in the Analysis Phase to more quantitatively analyze impacts resulting from the Red Hills Expressway or St. George Boulevard/100 South One-way Couplet alternatives. That methodology states that visual impact equals the visual resource change (based on the compatibility of visual character and changes to visual quality) plus the viewer response to that change (based on viewer exposure and viewer sensitivity) (Figure 2) (FHWA 1988).



**Figure 2. FHWA Visual Impact Equation**

Source: FHWA 1988

Visual character is based on pattern elements (e.g., form, line, color, or texture) and pattern character (e.g., dominance, scale, diversity, or continuity). A project's compatibility with the existing setting can be low or high. Visual quality is based on vividness, intactness, and unity, and is determined by assigning numerical values to those three elements and determining their average (FHWA 1988). The 1988 FHWA Visual Quality Evaluation Worksheet was used to assess visual character compatibility and changes to visual quality as rated on a scale from 1 (very low) to 7 (very high) for Alternatives E and F (refer to Attachment 3).

#### 4.1.5.3 Jointly Assessing BLM and FHWA Methodologies

Visual impacts are identified as either beneficial, neutral, or adverse. A beneficial impact would improve the existing conditions; a neutral impact would mean no change is expected. Because of the differences in the BLM and FHWA methodologies, an approach was devised to identify adverse impacts consistently between them using the results of the BLM's Visual Contrast Rating Worksheet and the FHWA's Visual Quality Evaluation Worksheet. The worksheet contents are based on the standard worksheets provided by each agency's guidelines, but the designs were slightly modified to ease comparisons between the two. Although the worksheets appear similar, the BLM's ranks the contrast that would result from the proposed change, and the FHWA's ranks the difference in visual quality that would occur. The BLM's weak, moderate,

and strong contrast rankings were assigned numeric values similar to the FHWA visual quality change rankings, as shown in Table 6.

**Table 6. Adverse Impact Ranking**

Numerical Ranking	FHWA Visual Character Compatibility	FHWA Change to Visual Quality	BLM Visual Contrast
1	Very high	Very low	Very weak
2	High	Low	Weak
3	Moderately high	Moderately low	Moderately weak
4	Moderate	Average	Moderate
5	Moderately low	Moderately high	Moderately strong
6	Low	High	Strong
7	Very low	Very high	Very strong

Using Table 6, a ranking of 2 would equal high visual compatibility and a low amount of change to visual quality, and hence a low adverse impact under the FHWA methodology, and a weak contrast, or low adverse impact under the BLM's. Rankings were assigned based on visual changes indicated in photographic simulations developed for the KOPs identified in Section 3.6. Impacts were identified as short term, which is through the first 5 years, and long term, which is through the life of the project, as defined by BLM *Manual 8431 – Visual Resource Contrast Rating* (BLM 1986b).

#### 4.1.5.4 Photographic Simulations

Photographic simulations are spatially accurate and realistic visualizations of views of a proposed action from KOPs. They are used to depict existing visual conditions and to illustrate how existing views from the KOPs would change with the proposed action. Simulations help evaluate the impact that would occur and assess if proposed actions would be consistent or inconsistent with the BLM VRM class objectives. Simulations are also used to evaluate the effectiveness of mitigation measures to address visual impact issues (BLM 1986b, no date d).

Existing visual conditions at each KOP location were photographically documented using a digital single-lens reflex camera set to take photos with a focal length equivalent to a 35-millimeter (mm) camera using a 50-millimeter lens. This type of equipment and setting best approximate what the human eye perceives (McHugh 2020).

A visual simulation was prepared for the view from each selected KOP to depict how it would appear with the completed project in place. For each view, computer modeling and rendering techniques were used to produce the simulated images. Existing topographic and site data provided the basis for developing an initial digital model. Project engineers provided data for the proposed facilities, which were used to create 3-D digital models of the alternatives. These models were combined with the digital site model to produce a complete computer model of the project changes.

For each simulation viewpoint, a viewer location was established using global positioning system (GPS) data recorded at the time the photo was taken using 5 feet as the assumed viewer eye level. Computer wire-frame perspective plots were then overlaid on the photographs of the views from the simulation viewpoints to verify scale and viewpoint location. Digital visual simulation images were produced as a next step based on computer renderings of the 3-D model, combined with high-resolution digital versions of base photographs.

Attachment 2 includes simulations prepared for this VIA, as well as existing conditions photos for comparison purposes. As mentioned under Section 3.6, because future regrowth of the Turkey Farm Road burned area is expected to approximate existing conditions, the before and after images were not revised.

#### **4.1.5.5 Noise Barriers**

Noise barriers could potentially be constructed for Alternatives 1 through 3, as they were determined to be feasible but not reasonable (EIS Section 3.23). Therefore, a more detailed noise analysis evaluating noise barriers would be conducted after completion of this EIS under a separate study. For purposes of this visual impact analysis, noise barriers were not assumed.

#### **4.1.5.6 Alternative 1, No Action Alternative**

##### **Impact Analysis**

Alternative 1 would result in no change to visual resources beyond existing conditions and trends..

##### **Consistency with VRM Class Objectives**

The No Action Alternative would result in no change to, and would therefore be consistent with, existing BLM VRM class objectives.

#### **4.1.5.7 Alternative 2, T-Bone Mesa Alignment**

##### **Impact Analysis**

Long-term, primarily adverse visual impacts would result from construction and operation of Alternative 2. Sensitive viewers that would be most impacted include residents at the northern end of the Green Springs residential area and users of nearby trails (i.e., Icehouse, Mustang Pass, Cottontail, and Middleton Powerline), users of the City Creek trail system and the T-Bone Trail, drivers on Cottonwood Springs Road at the proposed intersection, and drivers on Red Hills Parkway and users of the adjacent multi-use path at the proposed interchange. KOP 1 through KOP 3 (Attachment 2) depict existing conditions and simulated changes from the Green Springs residential area, T-Bone Trail, and Red Hills Parkway interchange.

This alternative would introduce a new 4-lane, 500-foot-wide road with two 12-foot-wide travel lanes in each direction, 8-foot shoulders, and a center median into a mostly undeveloped area, creating a substantial visual impact for sensitive viewers. Additional new visual elements would further heighten the effect, including a combination of curb and gutter, drainage swales and ditches, a trail paralleling the road, and road signs. Road cuts and fills would alter the landscape's landform and vegetation, and the road would interject contrasting textures and colors into the landscape, creating a strong linear feature that would become a focal point depending on proximity of these features to viewers (distance zone) and angle of views (many viewpoints have a superior viewing angle). Revegetating disturbed areas beyond the pavement and clear zones would help reduce contrast, but due to the low size of native vegetation in the area, contrast would be minimally reduced. In addition, moving vehicles would introduce motion into a primarily static landscape, calling attention to the road. Attachment 3, KOP 1 provides an example of this change viewed from the northern end of the T-Bone Trail. These trail users would experience considerable adverse impacts, because their exposure to this view would range from 10 minutes to 1 hour or more depending on activity. The intensity of impacts for all trail users in the analysis area, including those at the north end of the Green Springs residential area, would vary based on viewing distance and angle of view, because the road may be completely or partially screened by vegetation, land formations, and view angle as sensitive viewers move through the landscape. However, the overall impact would be adverse. Attachment 3 provides more details about impacts for all KOPs.

The analysis for this alternative assumes that one bridge would be required, which would be located on the east side of Cottonwood Springs Road adjacent to the existing substation. However, the bridge would be only minimally visible from sensitive viewing locations.

Impacts to residents and visitors using trails at the north end of the Green Springs residential area would vary based on the location of their houses regarding topography, orientation, angle of view and viewing distance. Some views would be completely screened by existing houses or lower elevation. Residents on the northwestern edge of the development, where views to the west are generally unobstructed, would be most affected. In addition, the impact would be of long duration, because residences are stationary. Some residents may be further affected by the increased traffic traveling through the area, as well as any intersections that may be designed under future planning efforts. The road would also be visible from some parts of the southwestern area of the Cottonwood Canyon Wilderness area, approximately 1.5 miles north of the Green Springs residential area, such as the Mill Creek and Washington Hollow trails. However, few locations within the wilderness offer views toward the road, as most views would be screened by topography and rock formations. In addition, any such views would also include the City of St. George, which would dominate the view, especially at night, making the new roadway indistinguishable.

A new stoplight-controlled interchange at Cottonwood Springs Road would introduce new lights and vertical elements. Most drivers on this road are expected to be recreationists traveling north into the Red Cliffs NCA, and as such, would be sensitive to visual change. However, visual impacts would be minor at this area, where existing substations and numerous transmission towers and lines of varying girths and heights have impeded views and diminished scenic quality. In addition, drivers would be exposed to the change for a relatively short amount of time as they continue to their destinations.

A new grade-separated interchange would be constructed at Red Hills Parkway, essentially flattening the parkway's curve where it turns to the south. The new alignment would form a mostly straight line where it joins the parkway, which would be realigned and straightened slightly to the south to create a perpendicular connection. This interchange would substantially change the visual character at that location by removing a large existing rock cut and introducing an elevated structure on large fill slopes and associated ramps (Attachment 2, KOP 3). The overpass would cast shadows at different times of the day. Although the change to landform would be considerable, the impact would be neutral (as described for KOP 3) to adverse depending on viewpoint because drivers would be exposed to the change for a relatively short amount of time. However, users of the City Creek trail system in this area would experience these impacts for a longer duration.

Associated roadway lighting and vehicle lights would draw attention to the road at night, making it a conspicuous element in an otherwise mostly undeveloped area (Attachment 2, KOP 2). This would particularly affect residents of the northern end of the Green Springs residential area, who would experience long view durations compared to drivers or recreational users, the latter of which would experience few impacts. Nighttime views within the Red Cliffs NCA may be locally affected by glare generated by vehicle headlights along the new road. The lights may also be noticeable from the southwestern area of the Cottonwood Canyon Wilderness area. However, at night, the lights of the City of St. George would absorb the lights from headlights on the new road, making them indistinguishable. Because the alternative would have minimal nighttime lighting and is not associated with new land developments, the alternative is not anticipated to appreciably contribute to area skyglow from the St. George metropolitan area.

Short-term impacts would occur during construction and would be related to views of construction equipment, dust, possible detours at the Red Hills Parkway interchange, and temporary staging areas. Construction may be phased by building one lane in each direction, with subsequent phases adding another lane, accompanying trails, and any cross-street connections. Therefore, views of construction activity would vary as activities move along the alignment. The biggest short-term impact would result from constructing the interchange with Red Hills Parkway, which would likely require cranes and other

large machinery to raise the structure. In addition, grading, adding fill, and removing the existing road cut in this area would likely create substantial dust.

Actions to minimize visual impacts (Section 4.1.4) have been incorporated into design and the simulations shown in Attachment 2, including roadway and slope grading, paint color selection, and site reclamation and revegetation. Furthermore, the size of cut and fill slopes and earthwork contrasts will be reduced by incorporating actions listed in Table 5, specifically, cuts and fills will be shaped to appear as natural and topographic forms. Revegetation activities will also adhere to Table 5 and the requirements of a Weed Control Plan, and structures such as bridges will be designed to minimize contrast as listed in Table 5. Short-term impacts will be mitigated through implementation of a Fugitive Dust Control Plan and Blasting Plan. Any lighting proposed for the roadway will be designed to reduce impacts to dark night skies, and low-reflective paint will be used to minimize glare.

The new alignment would provide views of Red Cliffs NCA for the travelers expected to use the proposed roadway itself and the adjacent trail. These travelers would have closer views of the tall, vivid red cliffs and Pine Valley Mountains north of the Green Springs residential area, as well as mountain views near the connection with Red Hills Parkway. These users would also experience close-up views of the substation and transmission lines near Cottonwood Springs Road.

Overall, the visual contrast of the proposed changes would range from moderate to strong depending on variables such as viewpoint, viewer sensitivity, angle of view, and time of day. Although impacts would be neutral in some areas where views are diminished, overall impacts would be primarily adverse due to the extent of the changes. This alternative would affect the fewest sensitive viewers of those alignments proposed through the Red Cliffs NCA, because it would be farthest from affected recreational facilities (for example, trails) and includes only one bridge. However, this alternative would adversely impact areas with high scenic quality and high sensitivity that comprise the VRI Class II through which the alignment would pass due to changes to landform, vegetation, and color, and impacts to sensitive users, including recreational visitors, nearby residents, and users of the highway. Table 7 shows the number of acres affected for each VRI unit in the analysis area for this alternative.

**Table 7. Alternative 2 – VRI Components**

VRI Unit	Level	Number of Acres Affected
Scenic Quality		
Red Cliff Sandstone	A	243
Young Basalt Flows	C	23
Sensitivity Level	High	266
Distance Zone	Foreground-middleground	266

The new roadway and bridge would require new rock cuts and fills, vegetation removal, and interjection of new colors (particularly, pavement) and a smooth, linear form into the landscape. The roadway and bridge would also represent a new cultural modification, as a highway would exist where one currently does not, detracting from the scenery in the form of a negative intrusion. These changes to scenic quality would be most impactful in the Red Cliffs Sandstone SQRU, where landform and color are both rated 4.5 (Table 3). In addition, this alignment would cross the Young Basalt Flows SQRU in close proximity to the visually prominent substation and several substantial transmission lines near Cottonwood Springs Road, which have compromised the quality of the immediately adjacent scenery.

**Consistency with VRM Class Objectives**

Where the alignment would traverse VRM Class III, the existing character of the landscape would be partially retained in some areas, such as where the alignment would cross Cottonwood Springs Road in proximity to the substations and utility lines. Such areas are better able to absorb further visual intrusions.

In addition, some sections of the alignment may not be visible from certain vantage points. However, the overall level of change to the characteristic landscape would likely exceed the moderate threshold for VRM Class III, particularly where sensitive viewers are located and recreational activities occur. This alternative would not conform to the RMP's VRM Class III objective because the highway would dominate the view of the casual observer throughout the majority of the alignment. Management activities (i.e., operation and maintenance of the road) would attract attention and would dominate the view of the casual observer, because the road would be a new and prominent feature in an otherwise undeveloped landscape. Despite incorporation of design features to help roadway components fit into the landscape, the resulting changes would not repeat the basic elements found in the predominant natural features of the characteristic landscape. Therefore, this alternative would not be consistent with VRM Class III.

#### 4.1.5.8 Alternative 3, UDOT Application Alignment

##### Impact Analysis

Long-term, primarily adverse visual impacts would result from construction and operation of Alternative 3, similar to Alternative 2. Sensitive viewers that would be most impacted include residents at the northern end of the Green Springs residential area, who would have longer view durations, and users of nearby trails (Icehouse, Mustang Pass, Cottontail, Middleton Powerline), users of the City Creek trail system and the Cottontail Trail, drivers on Cottonwood Springs Road at the proposed intersection, and drivers on Red Hills Parkway and users of the adjacent multi-use path at the proposed interchange. KOP 4 through KOP 7 (Attachment 2) depict existing conditions and simulated changes from the Red Hills Parkway interchange, City Creek Trail, Cottontail Trail, and Icehouse Trail.

This alternative would introduce the same roadway elements described for Alternative 2. As with Alternative 2, road cuts and fills would alter the landscape's topography, and the road would interject contrasting textures and colors into the landscape, creating a strong linear feature. Attachment 2, KOP 5 provides an example of this change viewed from the northern end of the City Creek Trail, where the new alignment would be raised on extensive fill. However, the new alignment is difficult to discern from this view, despite its broad panorama. The impacts of the new alignment would vary as the viewpoint and duration of view change. Attachment 2, KOP 6 depicts a simulated view from the Cottontail Trail west of the Green Springs residential area. The new alignment would be mostly obscured in this view because of the viewing angle and vegetation. Conversely, Attachment 2, KOP 7 shows extensive change from an elevated view on the Icehouse Trail. As viewers move through the landscape in the analysis area, the intensity of impacts would vary, but overall impacts would remain adverse. Attachment 3 provides more details about impacts for all KOPs.

The analysis for this alternative assumes that two bridges would be required, one on each side of Cottonwood Springs Road. However, they would be only minimally visible from sensitive viewing locations.

Impacts to residents at the north end of the Green Springs residential area would be similar to Alternative 2, although the Alternative 3 alignment would curve more sharply to the south, making this route more visible to some residents but less visible to others.

A new stoplight-controlled interchange at Cottonwood Springs Road would have similar impacts to Alternative 2. However, visual impacts to scenic quality would be slightly increased at this area, which is farther south of the existing substations and numerous transmission towers, thereby adding new vertical elements. Like Alternative 2, drivers would be exposed to the change for a relatively short amount of time as they continue to their destinations.

The new alignment would connect to Red Hills Parkway slightly south of the Alternative 2 interchange, forming a mostly diagonal line from the northwest to the southeast. The parkway would be realigned slightly from the south, curving to the northeast to create a perpendicular connection. As shown in Attachment 2, KOP 4, the elevated interchange would block some distant views, and its strong linear

shape would contrast against the existing landforms. The movement of motor vehicles on the overpass would further draw attention to it and obscure distant mountains. The extent of this impact would vary based on viewing angle and location.

Night lighting impacts would be the same as described for Alternative 2, and impacts on nighttime views within the Red Cliffs NCA would be similar to Alternative 2.

Short-term impacts would occur as described for Alternative 2.

Actions to minimize visual impacts (Section 4.1.4) would be incorporated as described for Alternative 2.

The new alignment would provide views of Red Cliffs NCA for travelers on the proposed roadway itself and the adjacent trail, but to a lesser degree than Alternative 2. However, the substation on Cottonwood Springs Road would be farther from view, and fewer transmission lines would be visible.

Overall, the visual contrast of the proposed changes would range from moderate to strong depending on variables such as viewpoint, viewer sensitivity, angle of view, and time of day, as previously described. Although impacts would be neutral in some areas where views are diminished, overall impacts would be primarily adverse due to the extent of the changes. This alternative would affect more sensitive viewers than Alternative 2 because of its more southern alignment and closer proximity to the Green Springs residential area. In addition, this alternative is assumed to include two bridges, one on the east and one on the south side of Cottonwood Springs Road, which would increase visual impacts.

Table 8 shows the number of acres affected for each VRI unit in the analysis area for this alternative.

**Table 8. Alternative 3 – VRI Components**

VRI Unit	Level	Number of Acres Affected
Scenic Quality		
Red Cliff Sandstone	A	263
Young Basalt Flows	C	24
Sensitivity Level	High	287
Distance Zone	Foreground-middleground	287

Impacts on scenic quality would be similar to Alternative 2 but would affect more acreage. The two proposed bridges would additionally impact scenic quality due to their mass and cut and fill requirements. The bridges would also heighten the degree of cultural modifications, representing an additional negative intrusion onto the landscape.

**Consistency with VRM Class Objectives**

This alternative would not be consistent with VRM class objectives as described for Alternative 2.

**4.1.5.9 Alternative 4, Southern Alignment**

**Impact Analysis**

Long-term, primarily adverse visual impacts would result from construction and operation of Alternative 4, as described for Alternative 2. Sensitive viewers that would be most impacted include residents at the northern end of the Green Springs residential area and users of nearby trails (Icehouse, Mustang Pass, Cottontail, Middleton Powerline); residents at the north end of the Middleton residential area; users of the City Creek trail system, the Pioneer Rim and Pioneer Hills Trails, and the Cottontail Trail; visitors to Pioneer Park; drivers on Cottonwood Springs Road at the proposed intersection; and drivers on Red Hills Parkway and users of the adjacent multi-use path at the proposed interchange. KOP 8 through KOP 11

(Attachment 2) depict existing conditions and simulated changes from the Pioneer Rim Trail, north end of the Middleton residential area, City Creek Trail, and Cottonwood Springs Road.

This alternative would introduce the same roadway elements described for Alternative 2. As with Alternative 2, road cuts and fills would alter the landscape's topography, and the road would interject contrasting textures and colors into the landscape, creating a strong linear feature. Attachment 2, KOP 8 provides an example of this change viewed from the Pioneer Rim Trail, where the new alignment would curve into the landscape, creating a large rock cut. These trail users would experience adverse impacts because their exposure to this view would likely range from approximately 10 minutes to 1 hour depending on activity.

Similar to Alternative 3, the analysis for this alternative assumes that two bridges would be required, one on each side of Cottonwood Springs Road, but farther south. Attachment 2, KOP 9 depicts a simulated view from the north end of the Middleton residential area, where a new bridge is assumed to the north. The bridge would introduce a large transportation element that would dominate the view in an area that is primarily undeveloped, contrasting with existing landform, vegetation, and color characteristics. Residents with views in this direction would experience long view durations compared to drivers or recreational users. Attachment 3 provides more details about impacts for all KOPs.

Impacts to residents at the north end of the Green Springs residential area would be similar to Alternative 3.

A new stoplight-controlled interchange at Cottonwood Springs Road would have similar impacts as Alternative 3. As shown in Attachment 2, KOP 11, the intersection structures would call attention to the new alignment. Like Alternative 2, drivers would be exposed to the change for a relatively short amount of time as they continue to their destinations.

The new alignment would connect to Red Hills Parkway slightly south of the Pioneer Hills trailhead, curving up from the south. The parkway would be realigned to curve more sharply to the east to create a perpendicular connection. As shown in Attachment 2, KOP 10, the interchange and roadway would introduce new transportation elements where none currently exists. These features would be viewed by more sensitive viewers than Alternatives 2 and 3, because they would be visible from several trails and Pioneer Park. The introduction of moving vehicles would draw further attention to this otherwise static landscape.

Night lighting impacts would be similar to Alternative 2, and impacts on nighttime views within the Red Cliffs NCA would be similar to Alternative 2. However, the impacts of vehicle lights and bridge lighting would be considerable for residents in the northern end of the Middleton residential area. In addition, lighting associated with the roadway could likely be more visible to drivers and businesses along Red Hills Parkway south of the alignment.

Short-term impacts would occur as described for Alternative 2. However, these impacts would likely affect residents of the northern end of the Middleton area more as a result of the nearby bridge construction.

Actions to minimize visual impacts (Section 4.1.4) would be incorporated as described for Alternative 2.

Similar to Alternative 3, the new alignment would provide views of Red Cliffs NCA for the travelers expected to use the proposed roadway itself and the adjacent trail. This alignment may also provide views of the rock formations at Pioneer Park.

The new alignment would provide views of Red Cliffs NCA for travelers on the proposed roadway itself and the adjacent trail, similar to Alternative 3. In addition, these travelers would have more views of distant cliffs and mountains surrounding St. George from the southeast to southwest, and possible views of the rock formations at Pioneer Park.

Overall, the visual contrast of the proposed changes would range from moderate to strong depending on variables such as viewpoint, viewer sensitivity, angle of view, and time of day, as described previously.

Although impacts would be neutral in some areas where views are diminished, overall impacts would be primarily adverse because of the extent of the changes. This alternative would affect more sensitive viewers than Alternative 2 and 3 as a result of its southernmost alignment and proximity to the Green Springs and Middleton residential areas, as well as additional recreation areas both within and outside Red Cliffs NCA.

Table 9 shows the number of acres affected for each VRI unit in the analysis area for this alternative.

Impacts on scenic quality under this alternative would be similar to Alternative 3 but affect more acreage, particularly in the Red Cliff Sandstone Unit.

**Table 9. Alternative 4 – VRI Components**

VRI Unit	Level	Number of Acres Affected
Scenic Quality		
Red Cliff Sandstone	A	337
Young Basalt Flows	C	23
Sensitivity Level	High	360
Distance Zone	Foreground-middleground	360

**Consistency with VRM Class Objectives**

This alternative would not be consistent with VRM class objectives as described for Alternative 2.

**4.1.5.10 Alternative 5, Red Hills Parkway Expressway**

**Impact Analysis**

Long-term adverse visual impacts would result from construction and operation of Alternative 5, which would vary depending on location. The proposed structures at 200 East and 1000 East, as well as the flyovers to connect to I-15, would be visually prominent and noticeable from viewpoints throughout St. George and areas within the Red Cliffs NCA's southern boundary. The structures at 200 East and 1000 East would be approximately 25 feet above Red Hills Parkway's existing grade. Grade differentials between the parkway and new structures would likely occur along a few hundred feet. The flyovers connecting the parkway to I-15 would likely be 30 feet high and visible mostly from I-15 and the immediate surroundings. Although the flyovers would be consistent with the existing transportation elements associated with the highway, they would hinder views of commercial establishments from I-15 and surrounding streets, and would be clearly visible from residential and commercial areas on adjacent bluffs. The structures at 200 East and 1000 East would also infringe on existing views from Red Cliffs NCA into or across the valley depending on viewpoint. The 200 East structure would dominant the view from the western portions of Pioneer Park, as well as the adjacent parking area and trailhead to the west. The structures would be much less noticeable from Red Hills Desert Garden, but would be very noticeable looking toward the NCA from the water tank overlook. Users of the multi-use trail adjacent to the parkway would experience adverse impacts related to views of the new interchanges. The structures' sizes would be much more substantial than existing infrastructure, and no similar features exist at 200 East and 1000 East, thereby representing a new visual intrusion.

Sensitive viewers that would be most impacted are mostly concentrated in LU 1 and are considered people with views toward the road, including visitors to Pioneer Park and Red Hills Desert Garden, people using the water tank overlook, and people using the multi-use path adjacent to the parkway. The 200 East interchange would be visible from parts of the Owens Loop Trail within the Red Cliffs NCA. Other viewers include drivers at the proposed interchange reconstructions and drivers on Red Hills Parkway, who would

have views from the road. KOP 12 in Attachment 2 depicts existing conditions and simulated changes from Pioneer Park.

Beyond interchange improvements, the majority of this alternative involves repaving and restriping the parkway, as shown in KOP 12. Sensitive viewers in LU 1 at Pioneer Park, Red Hills Desert Garden, and the water tank overlook who have views toward the road that do not include the interchanges would experience negligible, if any, adverse impacts. Because the roadway footprint would not change, the Red Hills Parkway multi-use trail would remain in place.

Night lighting impacts would be similar to existing conditions. Lights on the new interchanges would be elevated, slightly changing lighting conditions in those areas.

Short-term impacts would be similar to Alternative 2. However, the duration and intensity of these impacts would be concentrated primarily where the interchanges would be constructed and would involve no new roadway construction.

Actions to minimize visual impacts (Section 4.1.4) would be incorporated as described for Alternative 2.

The visual contrast of the proposed changes would be weak in proximity to BLM-administered lands that include no views of the interchanges, but strong where the interchanges would be seen. Overall compatibility with pattern and character elements would vary because of the presence of the interchanges. The character of LU 1 would change with the new interchange at 200 East, although visual quality would remain high overall in LU 1 and moderate in LU 2. Viewer exposure to the change would be high at the interchange locations, resulting in adverse impacts. This alternative would affect a potentially wide area of sensitive viewers who would see the proposed interchanges. Most of the roadway would follow the existing alignment, and the largest interchange would be located in a transportation setting within commercial and industrial areas.

Table 10 shows the number of acres affected for each VRI unit in the analysis area for this alternative.

**Table 10. Alternative 5 – VRI Components**

VRI Unit	Level	Number of Acres Affected
Scenic Quality		
Red Cliff Sandstone	A	24
Sensitivity Level	High	24
Distance Zone	Foreground-middleground	24

Impacts to scenic quality are minimal because the Northern Corridor would occupy the same area as the Red Hills Parkway, an existing cultural modification in the landscape.

### Consistency with VRM Class Objectives

Red Hills Parkway traverses BLM-administered land in LU 1 from approximately Skyline Drive north 0.2 mile. It also skirts BLM-administered land to the east from approximately the Pioneer Rim trailhead north to where the road curves west. These lands are designated VRM Class III. Although the interchanges would be visible from viewpoints within nearby BLM lands, no change to the BLM VRM Class III objectives would occur because the interchanges would be within existing transportation ROW.

#### 4.1.5.11 Alternative 6, St. George Boulevard/100 South One-way Couplet

##### Impact Analysis

Long-term adverse visual impacts would result from construction and operation of Alternative F. Sensitive viewers include residences on 100 South in LU 4, who would have views toward the road and be adversely

impacted. Drivers along this road and St. George Boulevard would experience changes of views from the road. Photos 1-32 through 1-35 provide representative examples of existing conditions.

The primary visual change for most viewers would be removal of the existing median and changing the direction and amount of traffic, the latter of which would be particularly noticeable at night (the view would be all taillights or headlights). Removing the median would remove existing landscaping, which currently adds natural elements to the built environment and softens the manmade features. This impact would be greater where the median is wider and includes shrubs and trees. Removing the median would also remove the historic-style light fixtures that add a unifying visual element to the roadway. Landscaping and light fixtures within and adjacent to the sidewalks would remain. Impacts would occur to sensitive viewers, such as pedestrians, residents on 100 South, and visitors to the St. George Historic Downtown. The east end of St. George Boulevard is fronted primarily by commercial uses, so few sensitive viewers would experience view toward the road at that location. Similar impacts would occur within LU 4 at 100 South, but more sensitive viewers would be affected because this is a residential area.

Creating a split interchange between these two roadways connected by one-way ramps at I-15 would reconfigure the existing transportation elements there by continuing the existing I-15 on-ramp from St. George Boulevard to 100 South and adding a highway on-ramp south of 100 South. Land use in this area between the two roads is mostly commercial, including a large recreational vehicle parking lot, and views from these areas toward the proposed interchange currently include I-15 and an on-ramp. Therefore, extending the existing on-ramp would result in a minor visual change compared to existing conditions. Adding an on-ramp south of 100 South would introduce a new transportation element between I-15 and existing land uses. However, most of these buildings do not have windows facing the highway. The new ramps would be visible to apartment residents near the southern end of the on-ramp, where it would be merging with I-15 and farther from the buildings. This eastern end of the analysis area is characterized as a transportation setting and would remain as such. Most impacts at the new interchange would be primarily to drivers with views of the road, whose impact would be of short duration. This alternative would also increase traffic on both roads, resulting in an adverse impact to sensitive viewers, particularly residents whose views are of long duration.

This alternative would affect fewer sensitive viewers than Alternatives 2, 3, or 4 because no new roadway alignment would be constructed and no recreational facilities would be affected; residential viewers would be affected under all alternatives.

### Consistency with VRM Class Objectives

Not applicable; this alternative is located outside the Red Cliffs NCA on non-BLM-administered lands.

## 4.2 Red Cliffs NCA RMP Amendment

Under this Federal action, the BLM would amend the Red Cliffs NCA RMP to allow for a transportation ROW within the Red Cliffs NCA.

### 4.2.1 Proposed Alternatives

Three alternatives were developed for the Red Cliffs NCA RMP amendment and are described in EIS Section 2.3.

- 1) **Red Cliffs NCA RMP Amendment Alternative A: No Action:** Under this alternative, the BLM would not amend the Red Cliffs NCA RMP.
- 2) **Red Cliffs NCA RMP Amendment Alternative B:** This alternative would allow for a one-time exception to cross a ROW avoidance area, manage the ROW for Northern Corridor as VRM Class IV, and manage an area around the selected route as part of the Rural Recreation Management Zone.

- 3) **Red Cliffs NCA RMP Amendment Alternative C:** This alternative would designate a new ROW corridor along the selected route for aboveground and buried utilities, manage the new ROW corridor as VRM Class IV, and manage an area around the selected route as part of the Rural Recreation Management Zone.

#### 4.2.2 Impacts Analysis

##### 4.2.2.1 Impacts Analysis Methodology

This analysis is performed as follows:

- 1) Quantitatively describes amendments to VRM classes as defined in the RMP based on impacts from the Northern Corridor Roadway analysis (Section 4.1). Where the proposed change would be inconsistent with existing VRM classes, the length of the new ROW was calculated (in acreage) to allow for comparisons among the alternatives (Table 11).
- 2) Qualitatively discusses indirect effects on visual character and VRM classes from potential development of other facilities (pipelines and electrical transmission lines) within the new proposed ROW.

##### 4.2.2.2 Red Cliffs NCA RMP Amendment Alternative A: No Action

The No Action Alternative would be consistent with the existing VRM class objectives, which would continue to be managed as currently designated. Table 11 shows the change to the number of acres for each VRM Class that would result under each alternative. Although the Red Hills Parkway Alignment (Alternative 5) would travel through BLM VRM Class III lands, changes would be confined to existing ROW, resulting in no modification to the RMP.

**Table 11. Red Cliffs NCA VRM Classes by Alternative**

VRM Class	Entire Red Cliffs NCA (acres)	Alternatives 1, 5, and 6 (acres)	Alternative 2 T-Bone (acres)	Alternative 3 UDOT (acres)	Alternative 4 Southern (acres)
VRM Class I	19,989	19,989	19,989	19,989	19,989
VRM Class II	18,630	18,630	18,630	18,630	18,630
VRM Class III	6,193	6,193	6,093	6,085	6,126
VRM Class IV	20	20	120	128	87

Note: Assumes the full 500-foot ROW or corridor width would be amended to VRM Class IV.

##### 4.2.2.3 Red Cliffs NCA RMP Amendment Alternative B

Construction of any of the Northern Corridor alternatives would result in adverse visual impacts as described in Section 4.1.5, and objectives associated with existing VRM Class III lands would not be met regardless of the alignment chosen. Under Alternative B, the RMP would be amended to change the lands occupied by the ROW to VRM Class IV. Therefore, implementation of this alternative would then be in conformance with amended VRM Class IV.

##### 4.2.2.4 Red Cliffs NCA RMP Amendment Alternative C

Similar to Alternative B, construction of any of the Northern Corridor alternatives would result in adverse visual impacts as described in Section 4.1.5, and objectives associated with existing VRM Class III would not be met regardless of the alignment chosen. Under this amendment alternative, the affected VRM class areas would change to VRM Class IV as described for Alternative B. Therefore, implementation of this alternative would then be in conformance with amended VRM Class IV. In addition, a new ROW corridor

would be established open to aboveground and buried utilities along the selected route. Incorporating aboveground utilities, specifically transmission and telephone lines, would introduce vertical components into the landscape that would not be included under Alternative B. The extent of visual impacts would depend on the height and girth of the towers and the number of lines. Such utilities would increase the indirect adverse impacts beyond those described in Section 4.1.5, because the vertical structures would draw attention to the roadway where it may otherwise not be readily apparent. The towers would cast shadows and the lines would reflect sunlight, introducing glare during certain times of the day and year. In addition, the lines would be conspicuous when skylined against a clear sky (Photos 1-8 through 1-15, 1-50, and 1-52 provide examples). The landscape's desert setting lacks tall, dense forests or other natural vertical components that could help visually absorb aboveground utilities.

Visual impacts related to belowground utilities would be primarily short term and occur during construction and occasional maintenance as needed. The disturbed ground would be revegetated, and would appear similar to existing conditions within the ROW before design year 2050. If revegetation is not successful for those future projects, linear forms associated with ROW vegetation clearing for construction would continue to contrast with the existing landscape character.

The acreage affected would be the same as shown in Table 11 for Alternative 2, as the ROW width would be the same for both alternatives.

### **4.3 Habitat Conservation Plan**

As identified in EIS Table 3.1-1, visual impacts associated with issuance of the ITP and Washington County's Amended HCP were not specifically assessed because decisions to be made by the USFWS related to the issuance of an ITP would not affect visual resources outside of proposed Reserve Zone 6. However, the amendment to the SGFO RMP would establish proposed Reserve Zone 6 and is tied to the Amended HCP and the USFWS' decision to issue an ITP. Therefore, visual impacts related to the SGFO RMP are discussed in Section 4.4.

### **4.4 St. George Field Office Resource Management Plan Amendments**

If Alternatives 2, 3, or 4 are approved by the BLM, proposed Reserve Zone 6 would be established. The BLM would amend the existing SGFO RMP to align management of BLM-administered lands within proposed Reserve Zone 6 with the management described in the Washington County HCP.

#### **4.4.1 Proposed Alternatives**

The BLM developed three alternatives to complete this task, as described in EIS Section 2.5:

- 1) **SGFO RMP Amendment Alternative A: No Action:** No change in current management.
- 2) **SGFO RMP Amendment Alternative B:** Place limitations on surface disturbing activities, including managing proposed Reserve Zone 6 as an exclusion area for new ROWs, place new restrictions on minerals management and mining, restrict some recreation uses, make all lands unavailable for livestock grazing, and identify all non-Federal lands for acquisition.
- 3) **SGFO RMP Amendment Alternative C:** Similar to Alternative B except less restrictive management, including managing Federally managed lands in proposed Reserve Zone 6 as a ROW avoidance area, placing fewer restrictions on minerals management and mining, placing fewer restrictions on recreation activities, and making more areas available for livestock grazing.

## 4.4.2 Impacts Analysis

### 4.4.2.1 Impacts Analysis Methodology

This analysis is performed as follows:

- 1) Qualitatively describes the potential proposed Reserve Zone 6 land use changes that would alter the visual character and quality of lands seen by sensitive viewers (residents and recreational users).
- 2) Qualitatively describes areas containing sensitive viewers where existing BLM VRM objectives might change within proposed Reserve Zone 6.

#### 4.4.2.2 SGFO RMP Amendment Alternative A: No Action

Alternative A would allow continuation of certain activities in varying degrees that would result in visual impacts in proposed Reserve Zone 6. Managing some proposed Reserve Zone 6 lands for ROW use, and mining and mineral use would potentially introduce additional utilities – particularly extractive equipment (such as drilling rigs) and power poles, which would be allowed in 96.5 percent of the BLM-administered land within proposed Reserve Zone 6. Power poles, other utilities, and drilling or other extractive equipment typically consist of manmade vertical elements, and the area's uninterrupted desert setting lacks tall, dense forests or other natural vertical components that can help absorb such additions, making mitigation of these elements difficult. Sensitive viewers, such as recreational users, would be adversely impacted. Allowing livestock grazing, dispersed camping, off-highway vehicle use, and mountain biking, even if restricted, would likely continue to create scars on the landscape because of soil disturbance. Continuing to manage lands under different agencies within proposed Reserve Zone 6 could result in inconsistent uses, potentially resulting in impacts to visual resources occurring in some areas but not others. For example, one land manager may allow land development activities and another may restrict or prohibit such use, with different visual effects from vehicle operation and resultant landscape scarring. Sensitive viewers would be affected based on their perception of particular recreation activities.

The lands in proposed Reserve Zone 6 were identified as Class C. The No Action Alternative would potentially allow additional cultural modifications to be introduced and further reduce scenic quality. No change to the VRM Class III designation for BLM-administered lands within proposed Reserve Zone 6 would occur.

#### 4.4.2.3 SGFO RMP Amendment Alternative B

Compared to the No Action Alternative, Alternative B would greatly restrict, if not completely prohibit, ROW use and mining and mineral activities. Therefore, no or few new manmade vertical components would be introduced to the landscape. Landscape scarring would be minimized by closing or recommending withdrawing all proposed Reserve Zone 6 lands from mineral uses; making the area unavailable to livestock grazing; closing the area to camping, competitive equestrian and off-highway vehicle events; limiting special events to existing public roads; and restricting mountain biking and off-highway vehicle use to existing routes. In addition, applying sustainable actions to travel routes would further help minimize creation of new unauthorized routes and their resulting scars. Alternative B would have a beneficial effect on sensitive viewers.

Restricting activities as described under this alternative could potentially increase scenic quality by not allowing visually incongruent actions to be permitted (cultural modifications). Under Alternative B, non-Federal lands would be identified for Federal (BLM) acquisition. As the non-Federal lands are acquired, the BLM would assign VRM classes to these lands.

#### 4.4.2.4 SGFO RMP Amendment Alternative C

Overall, Alternative C would be more restrictive than Alternative A but less restrictive than Alternative B. Specifically, ROW use and mining and mineral activities would be permitted only in certain circumstances

or locations. Similarly, livestock grazing would be allowed in specific areas and some restrictions would be placed on camping and recreational events, such as concentrating camping to designated areas, and requiring permits for events. Visual impacts could result from limited vertical intrusions due to fluid mineral leasing in unincorporated areas and the effects of scarring from grazing and recreational use. However, visual scarring related to off-highway vehicle and mountain bike use would be minimized as described for Alternative B. Alternative C would have a beneficial effect on sensitive viewers, but to a lesser extent than Alternative B.

Limiting certain activities as described under this alternative could potentially increase scenic quality as described for Alternative B. Under Alternative C, non-Federal lands would be identified for Federal (BLM) acquisition. As the non-Federal lands are acquired, the BLM would assign VRM classes to these lands.

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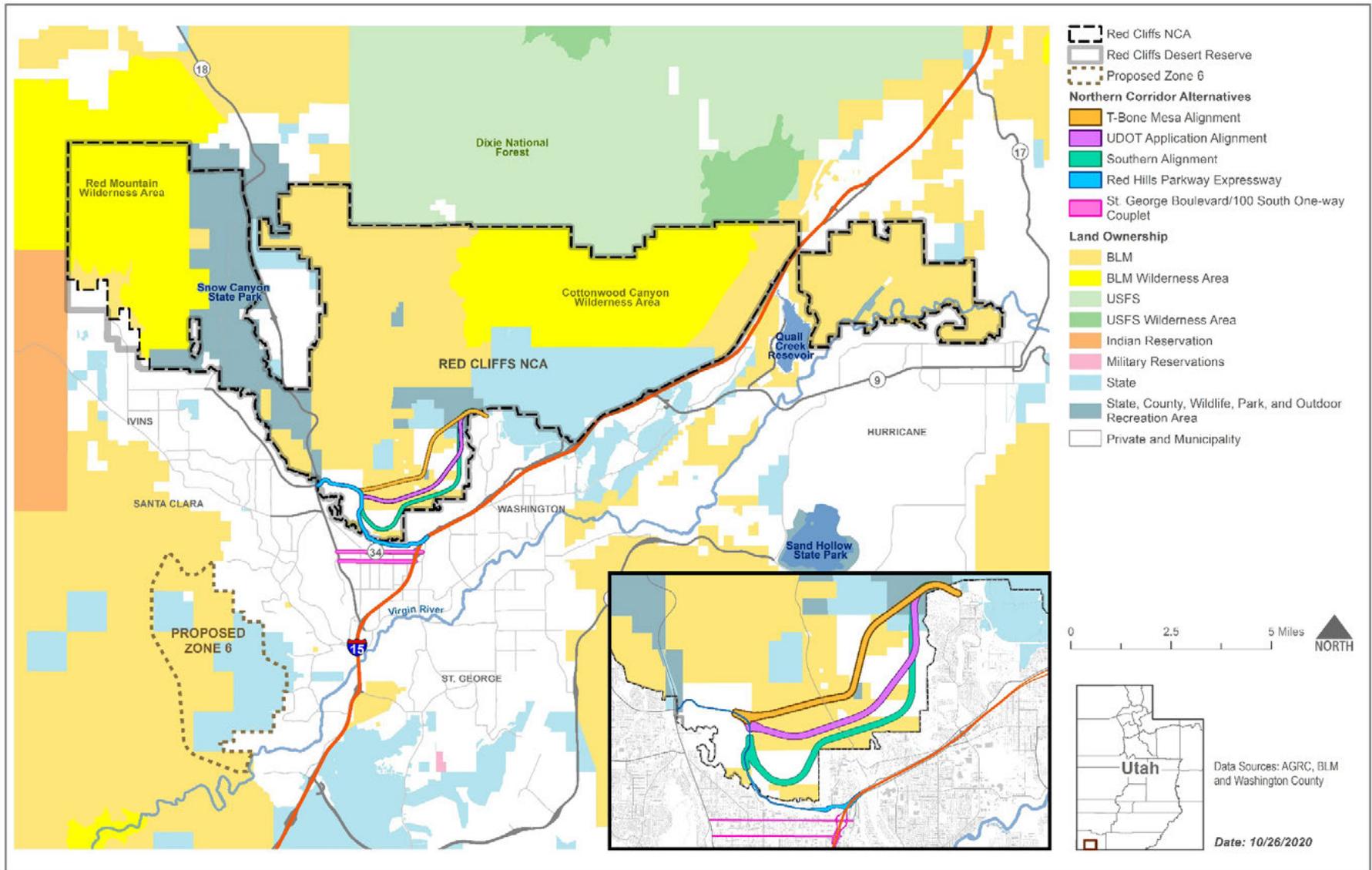
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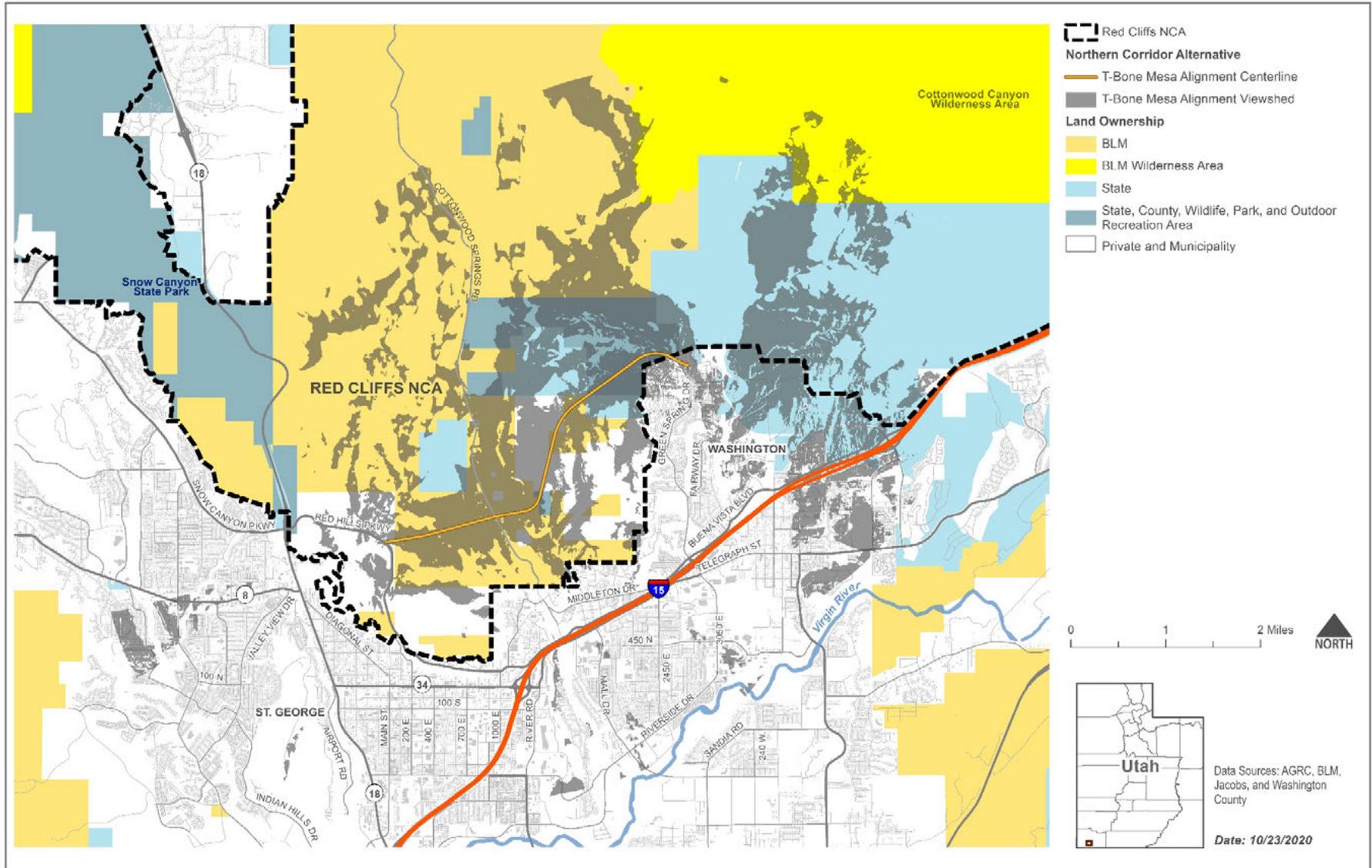
Attachment 1  
Existing Conditions

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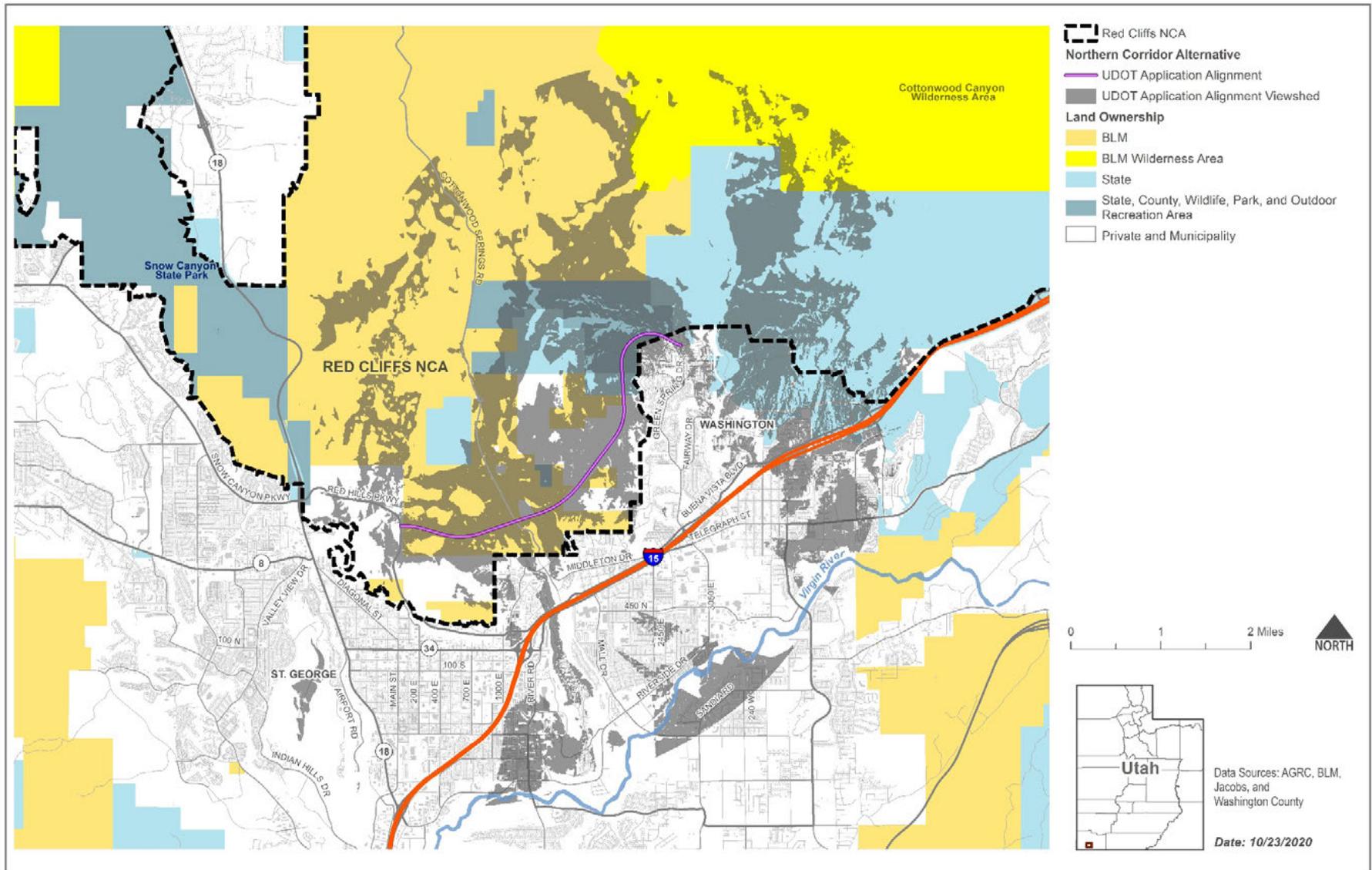
Map 1-1. Project Location



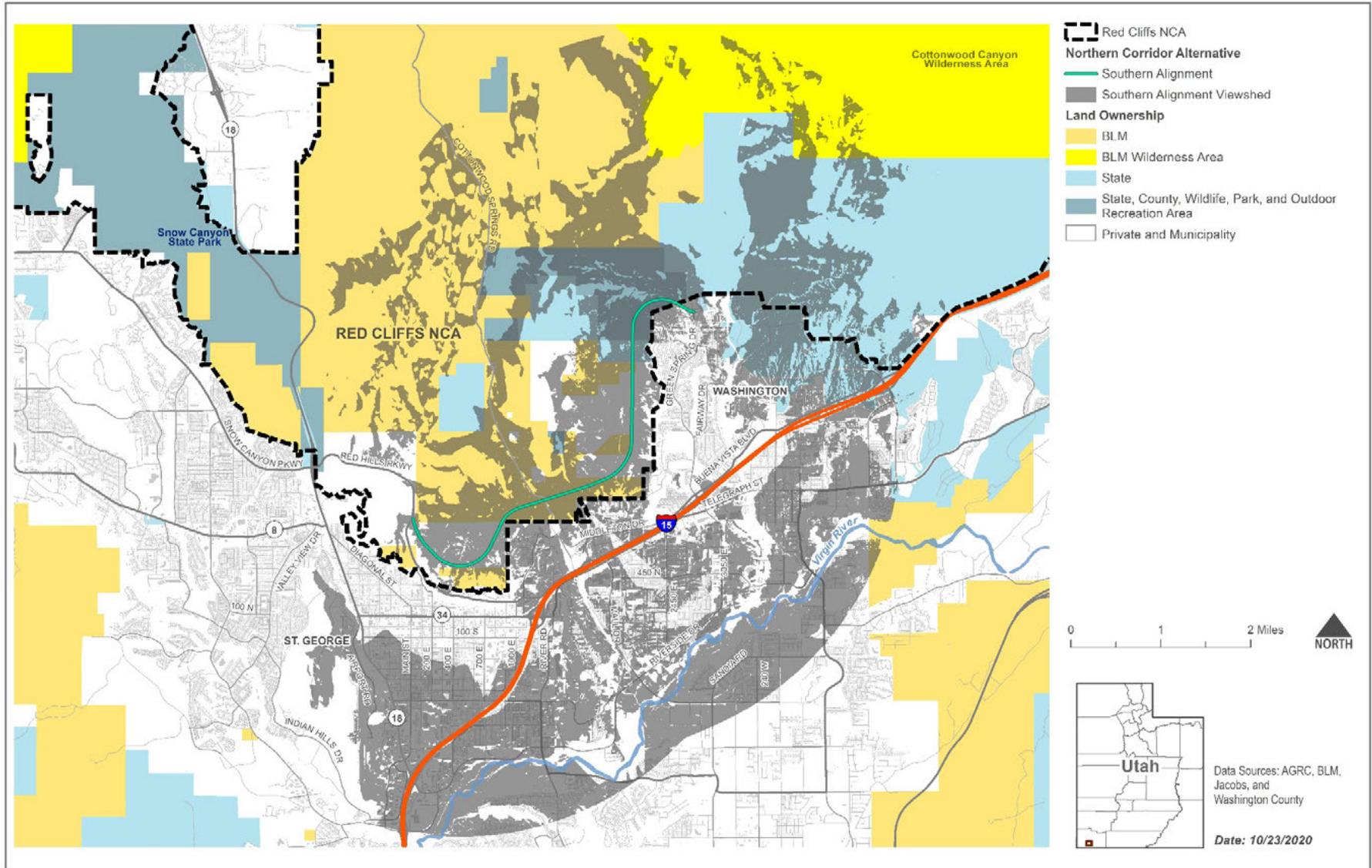
Map 1-2a. Visibility Map, T-Bone Mesa Alignment



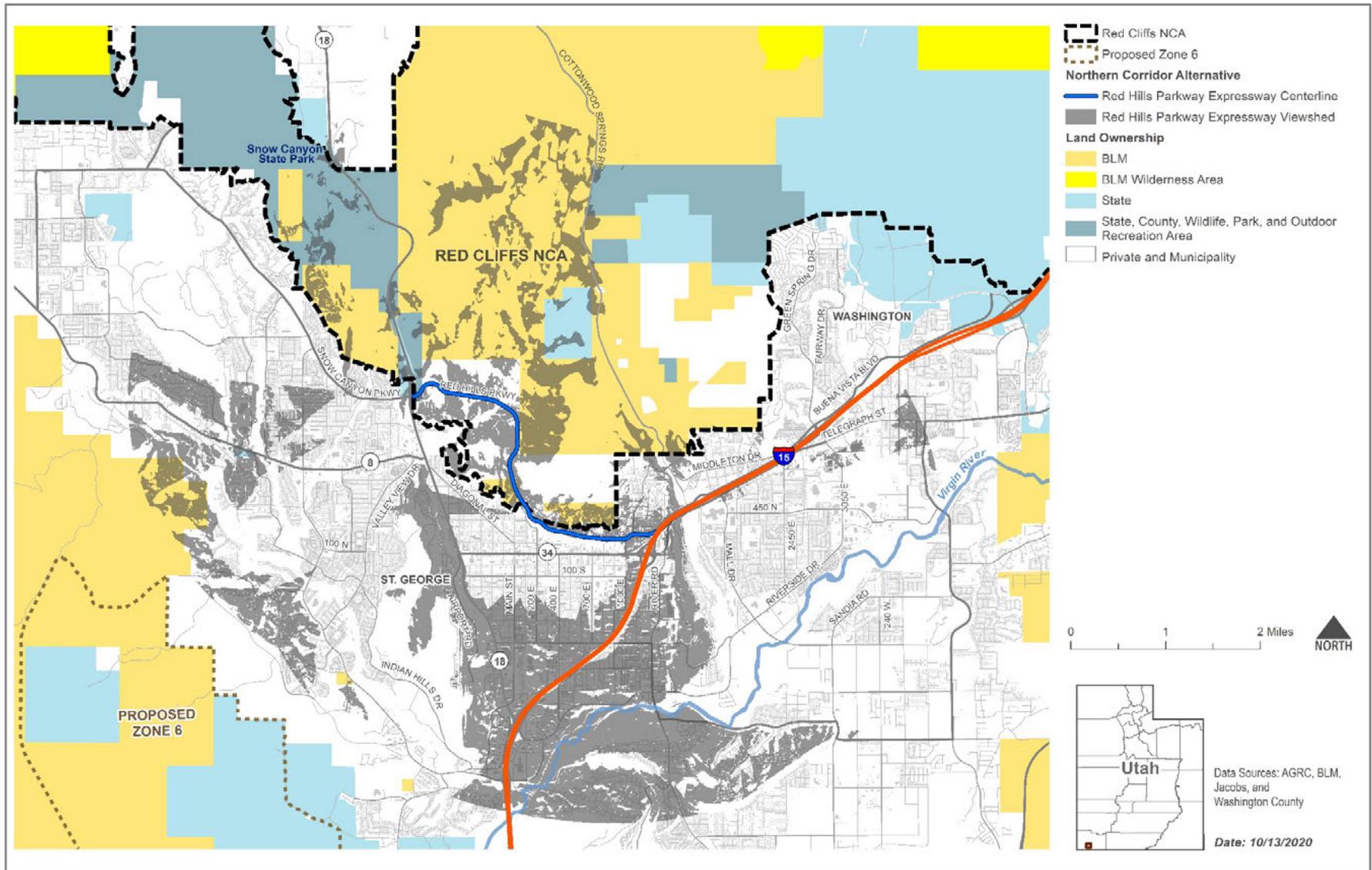
Map 1-2b. Visibility Map, UDOT Application Alignment



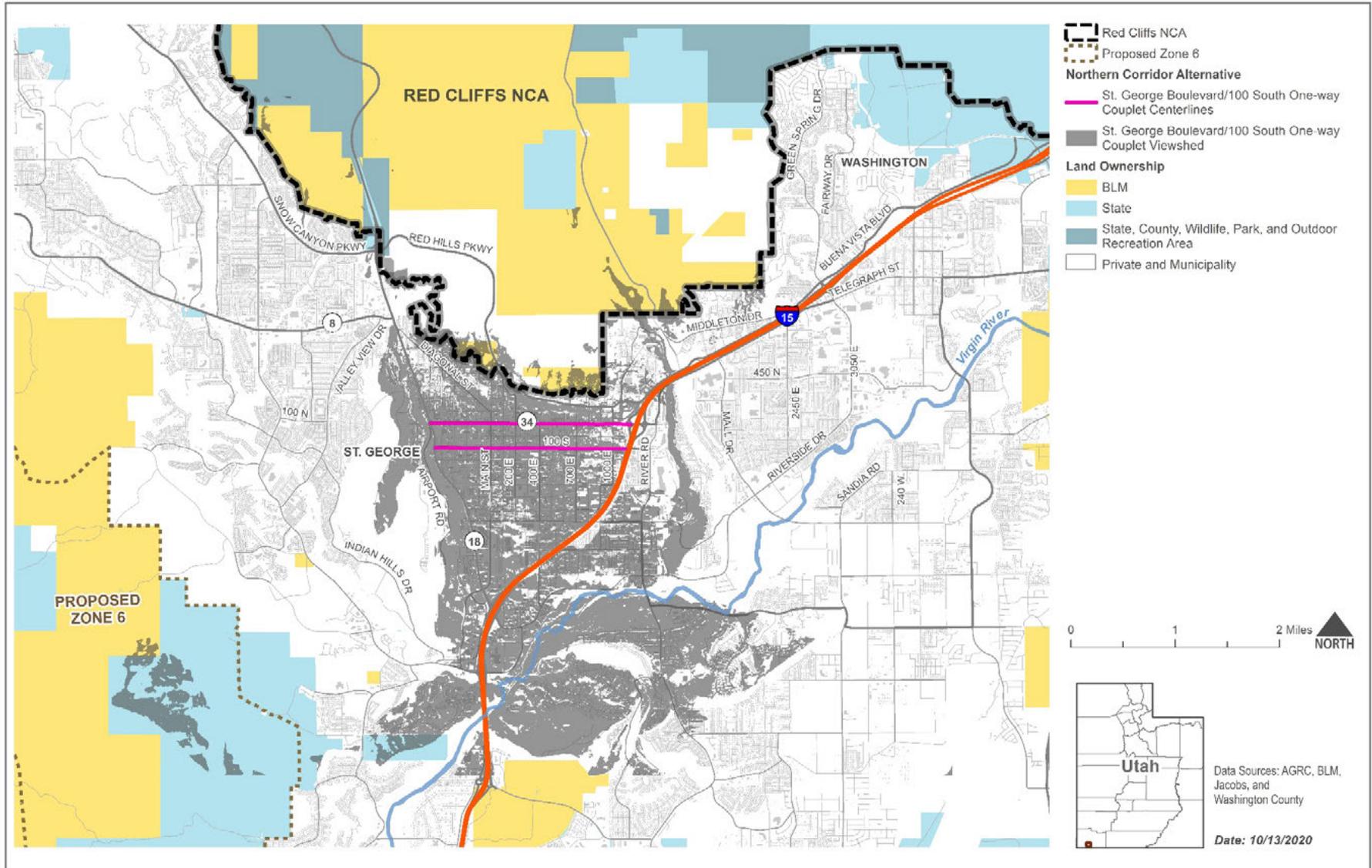
Map 1-2c. Visibility Map, Southern Alignment



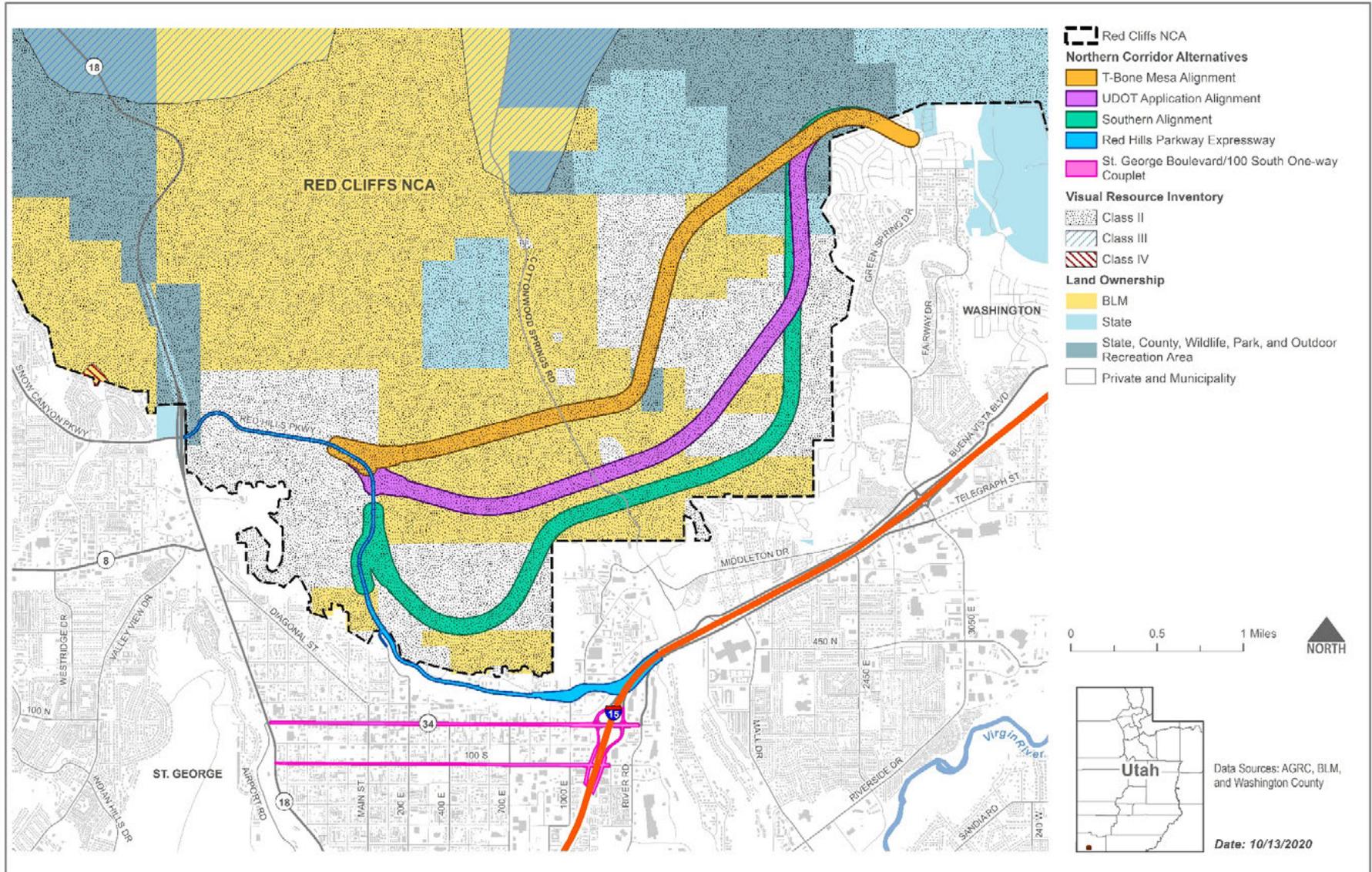
Map 1-2d. Visibility Map, Red Hills Expressway Alignment



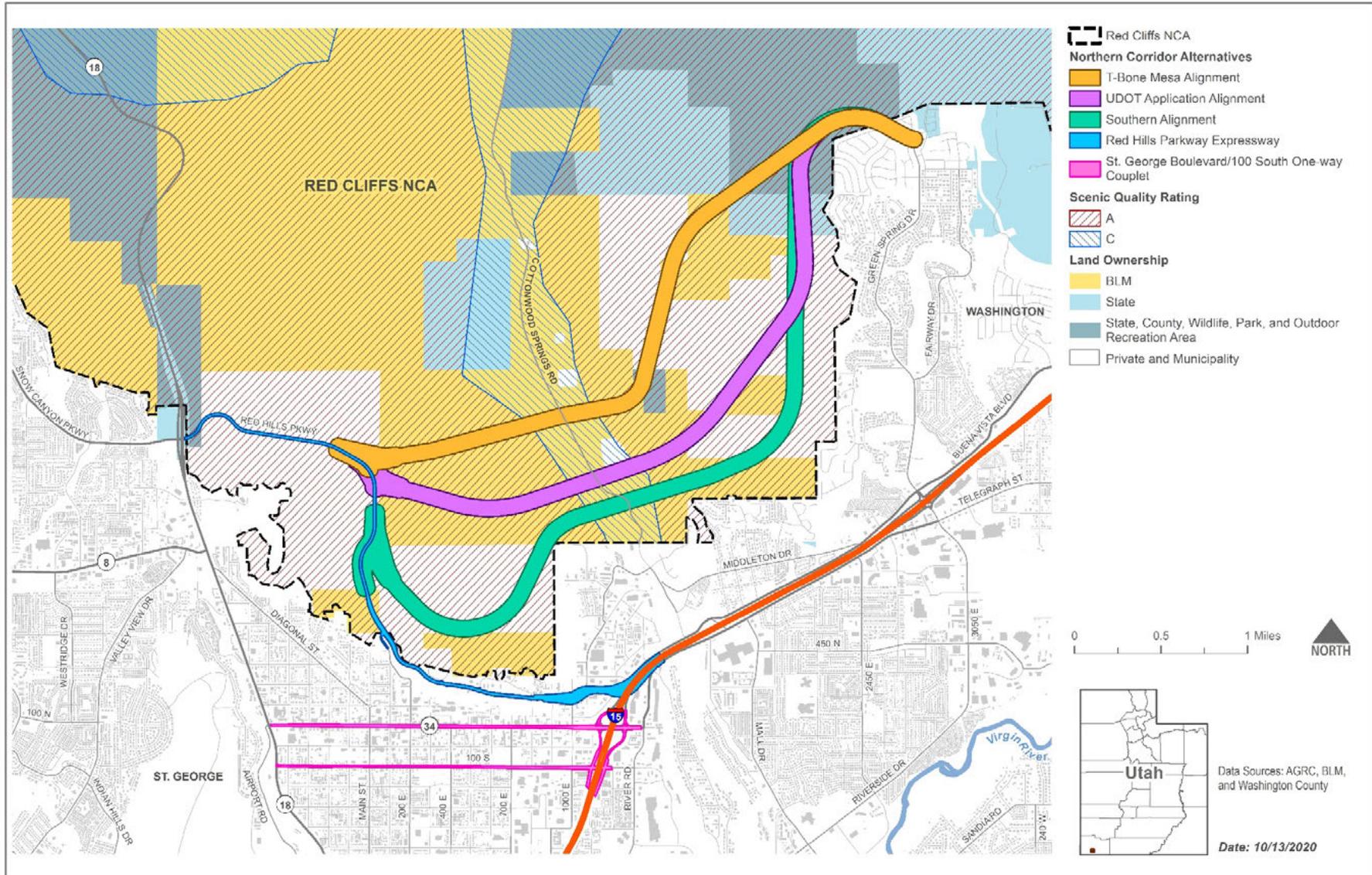
Map 1-2e. Visibility Map, St. George Boulevard/100 South One-way Couplet



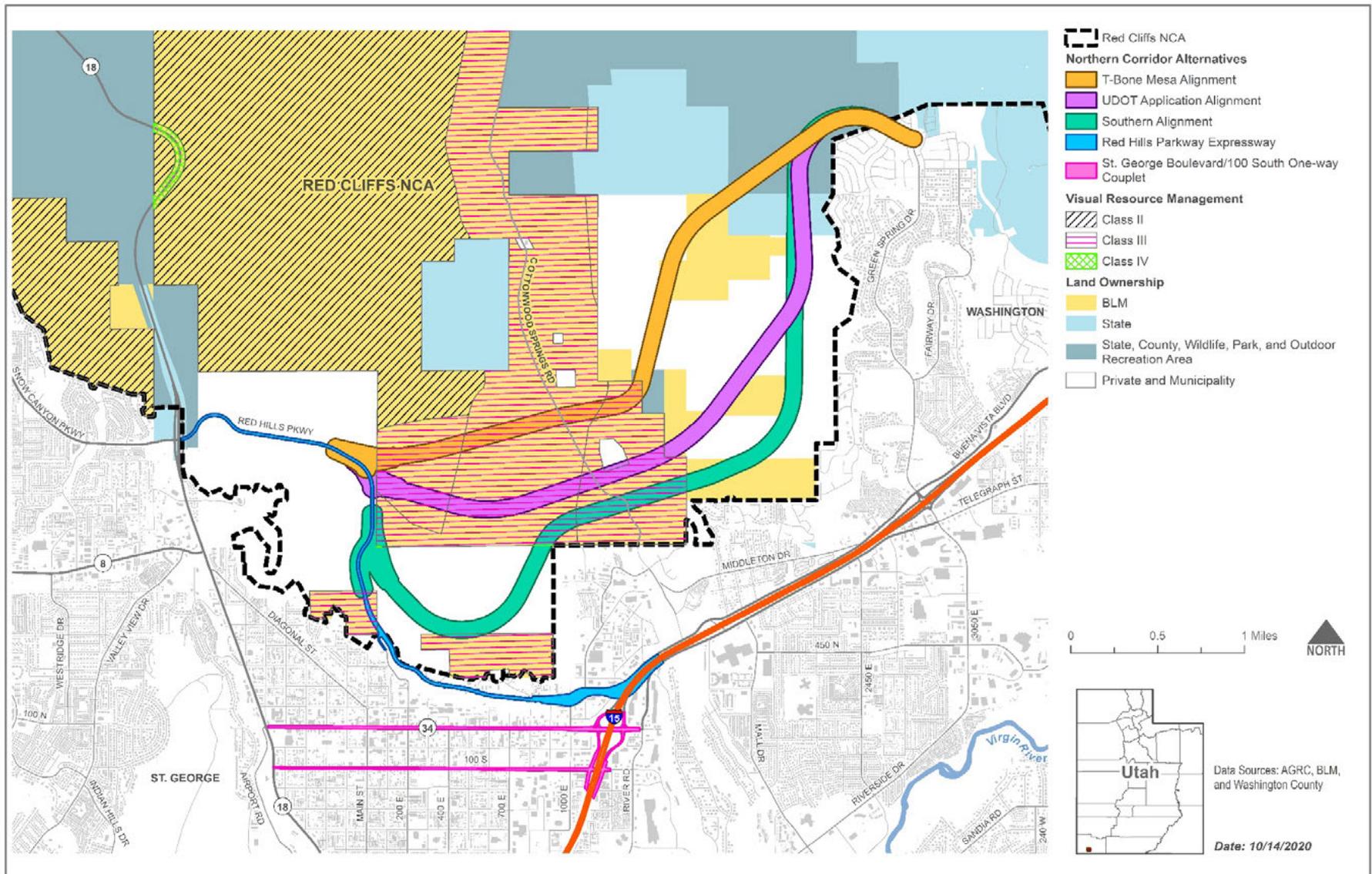
Map 1-3. Red Cliffs National Conservation Area VRI Classes



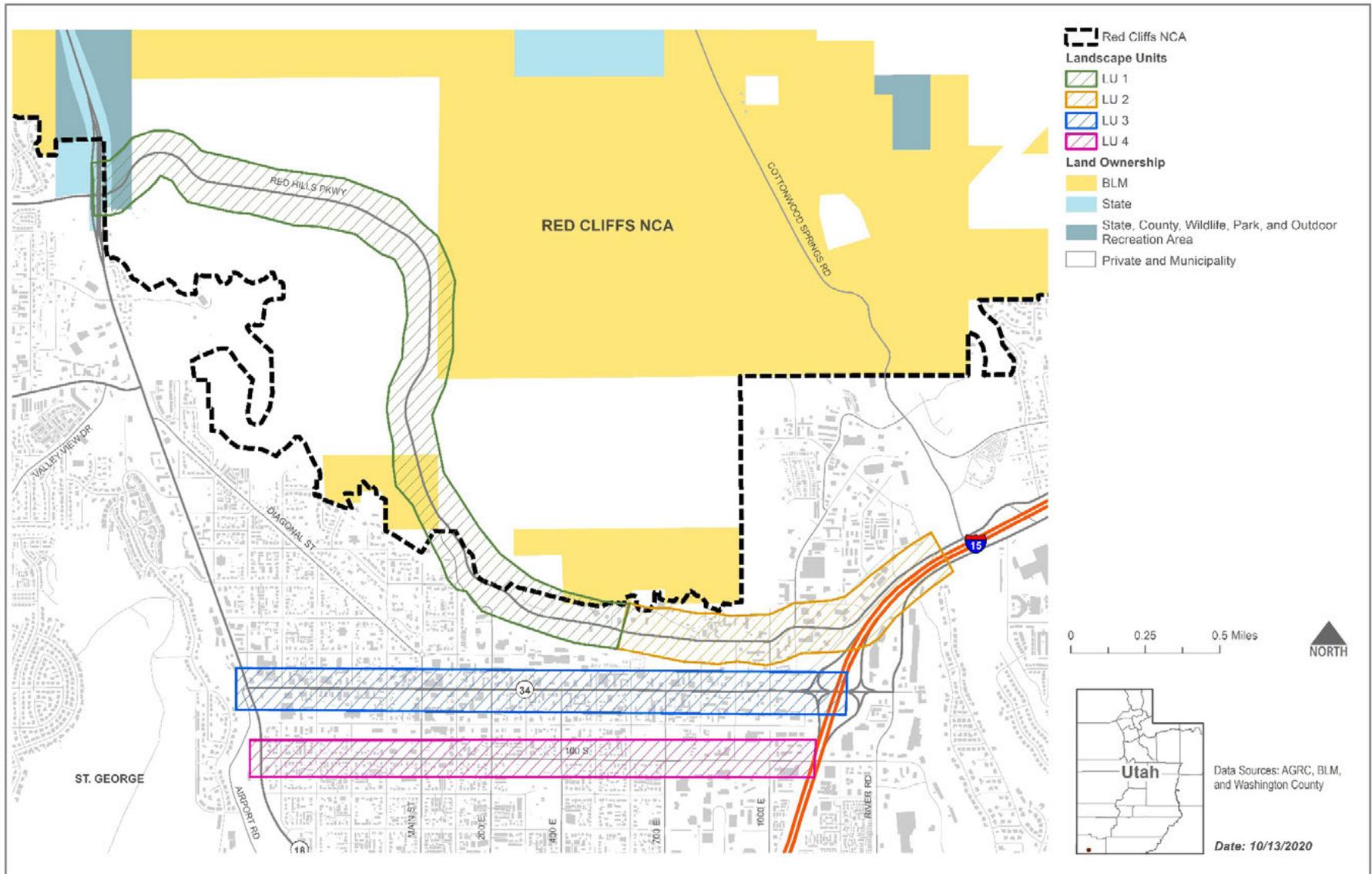
Map 1-4. VRI Scenic Quality Rating Red Cliffs NCA



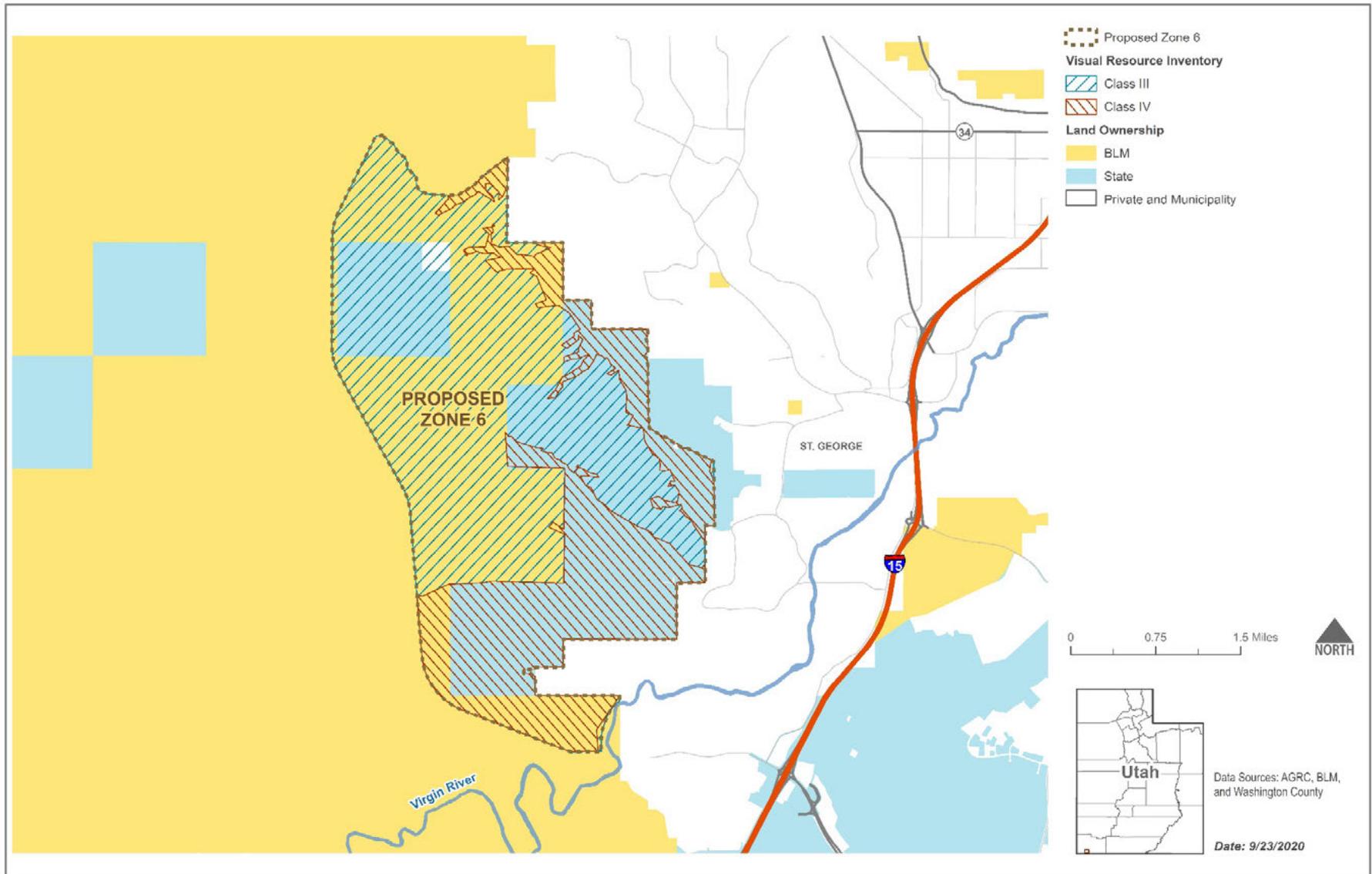
Map 1-5. Red Cliffs National Conservation Area VRM Classes



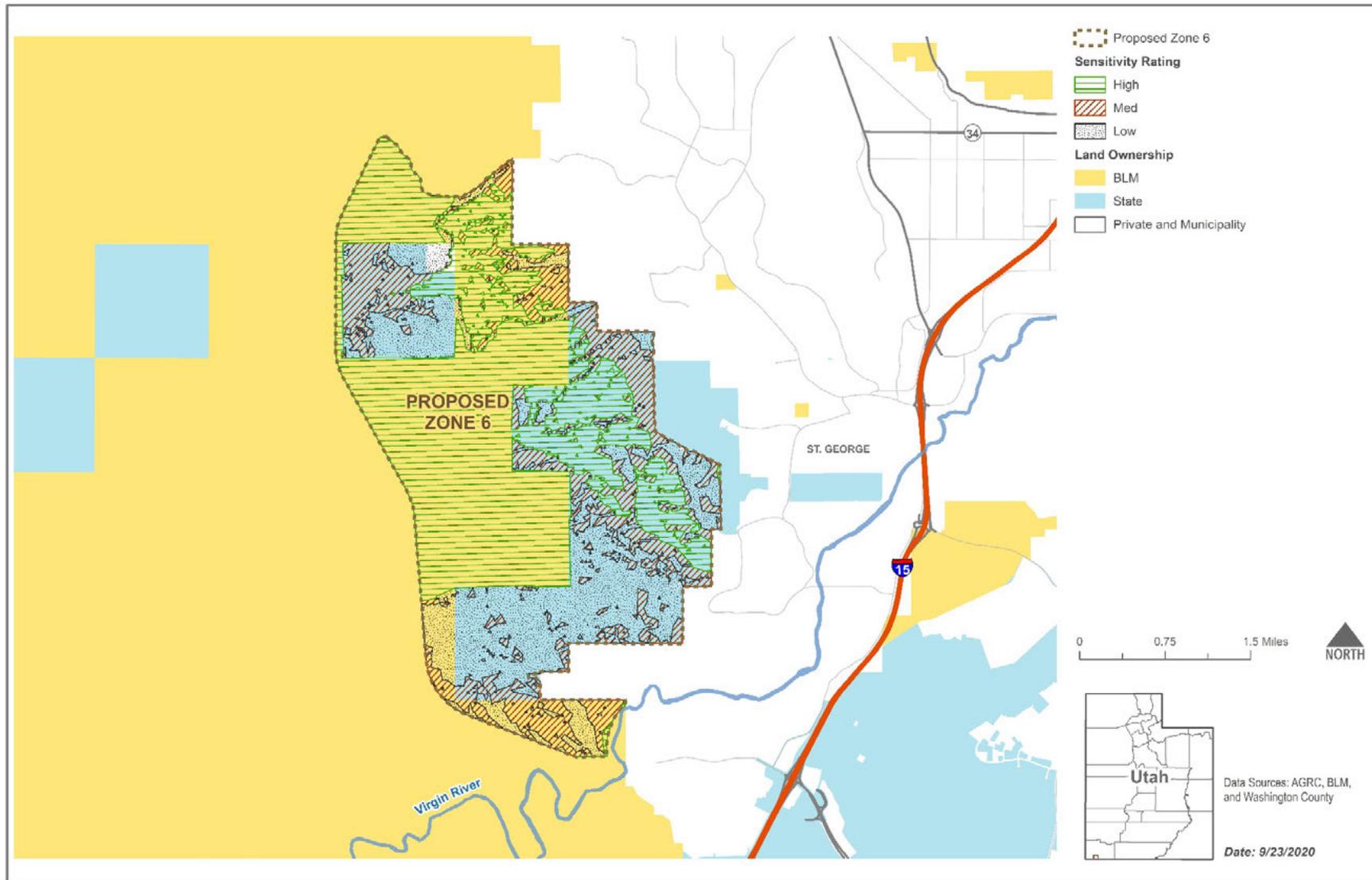
Map 1-6. Landscape Units



Map 1-7. Proposed Reserve Zone 6 VRI Classes



Map 1-8. Proposed Reserve Zone 6 VRI Sensitivity Ratings



Map 1-9. Proposed Reserve Zone 6 VRM Classes

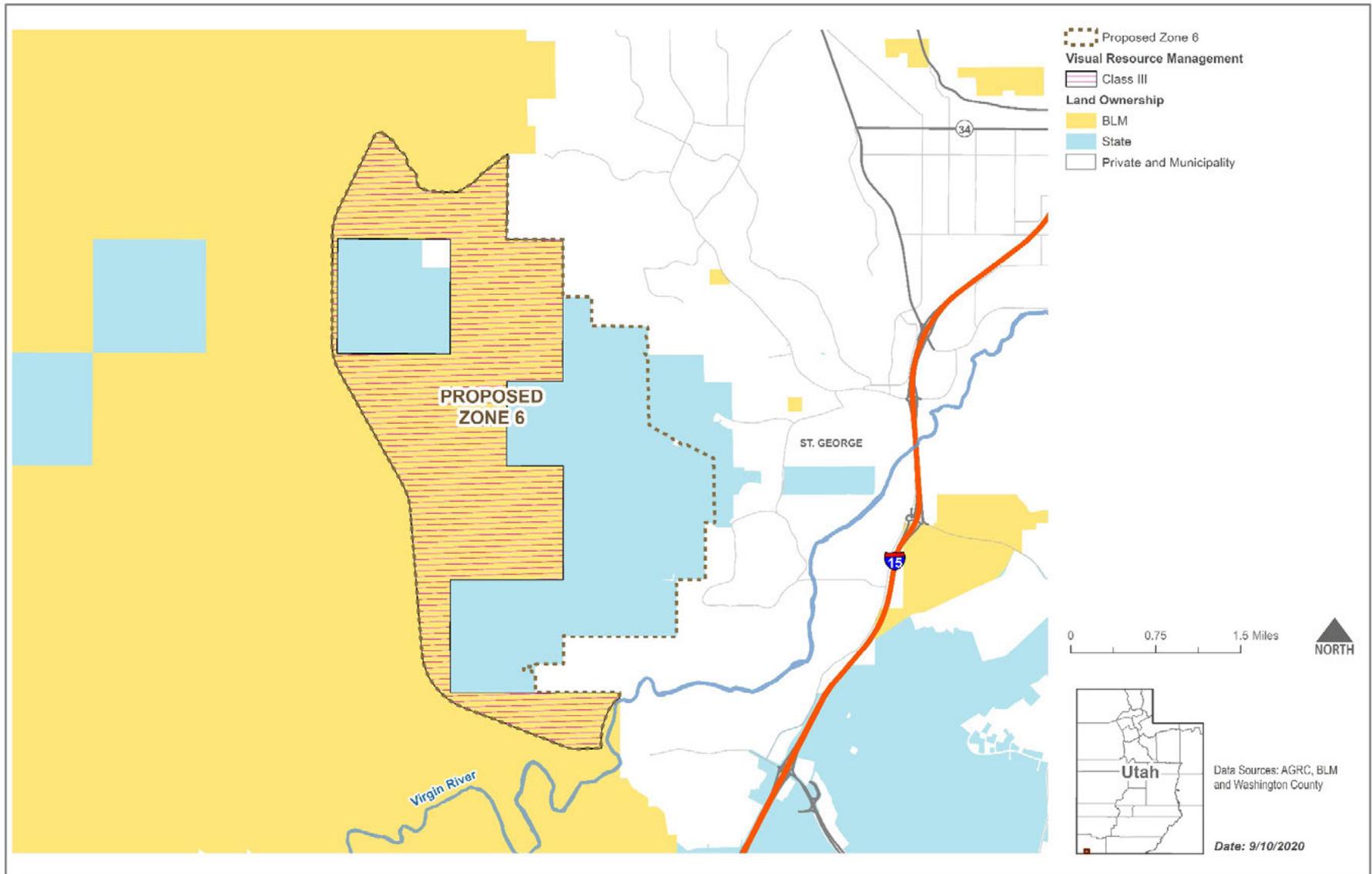


Photo 1-1. Pioneer Park



Photo 1-3. Pine Valley Mountains from Pioneer Park



Photo 1-2. Pioneer Park



Photo 1-4. City of St. George from Pioneer Park



**Photo 1-5. Red Hills Desert Garden**



**Photo 1-7. Pine Valley Mountains from Pioneer Hills Trail**



**Photo 1-6. Pine Valley Mountains from Cottonwood Springs Road**



**Photo 1-8. Transmission Lines at T-Bone Trailhead**



**Photo 1-9. Transmission Lines at T-Bone Trailhead**



**Photo 1-11. Transmission Lines at Cottonwood Springs Road**



**Photo 1-10. Substation at Cottonwood Springs Road**



**Photo 1-12. Transmission Lines and Pine Valley Mountains**



Photo 1-13. Substation and Pine Valley Mountains



Photo 1-15. Middleton Powerline Trail



Photo 1-14. Water Tank at Cottonwood Springs Road



Photo 1-16. Cottonwood Springs Road



Photo 1-17. North End of Green Springs Residential Area



Photo 1-19. Grapevine Trail



Photo 1-18. North End of Green Springs Residential Area



Photo 1-20. Cottontail Trail



**Photo 1-21. Mustang Pass Trailhead**



**Photo 1-23. Hill on West Side of Green Springs Residential Area**



**Photo 1-22. Green Springs Residential Area from Icehouse Trail**



**Photo 1-24. North End of Middleton Residential Area**



Photo 1-25. LU 1 — Red Hills Parkway Rock Cut near Bluff Street



Photo 1-27. LU 1 — Pioneer Park



Photo 1-26. LU 1 — Pine Valley Mountains



Photo 1-28. LU 1 — St. George



Photo 1-29. LU 1 — Red Hills Parkway



Photo 1-31. LU 2 — Commercial and Industrial Uses



Photo 1-30. LU 2 — St. George



Photo 1-32. LU 3 — St. George Boulevard Looking West



Photo 1-33. LU 3 — St. George Boulevard Looking East



Photo 1-35. LU 3 — 100 S Street Looking West



Photo 1-34. LU 3 — 100 S Street Looking East



Photo 1-36. Zone 6 Cliffs and Valley Floor



Photo 1-37. Zone 6 Views



Photo 1-39. Zone 6 Mountain Biking Scars



Photo 1-38. Zone 6 Bearclaw Poppy Trail System



Photo 1-40. Zone 6 Off-Road Vehicle Scars



Photo 1-41. Zone 6 Off-Road Vehicle Scars



Photo 1-43. Zone 6 Trash



Photo 1-42. Zone 6 Camp Trailers



Photo 1-44. Zone 6 Landscape



Photo 1-45. Zone 6 Moe's Valley Rock Climbing Area



Photo 1-47. Zone 6 Green Valley Gap Climbing Area



Photo 1-46. Zone 6 Moe's Valley Rock Climbing Area



Photo 1-48. Zone 6 Water Tank



**Photo 1-49. Substation outside Zone 6 near Zen Trailhead**



**Photo 1-51. Transmission Lines within Zone 6 near Navajo Drive**



**Photo 1-50. Transmission Lines outside Zone 6 near Zen Trailhead**



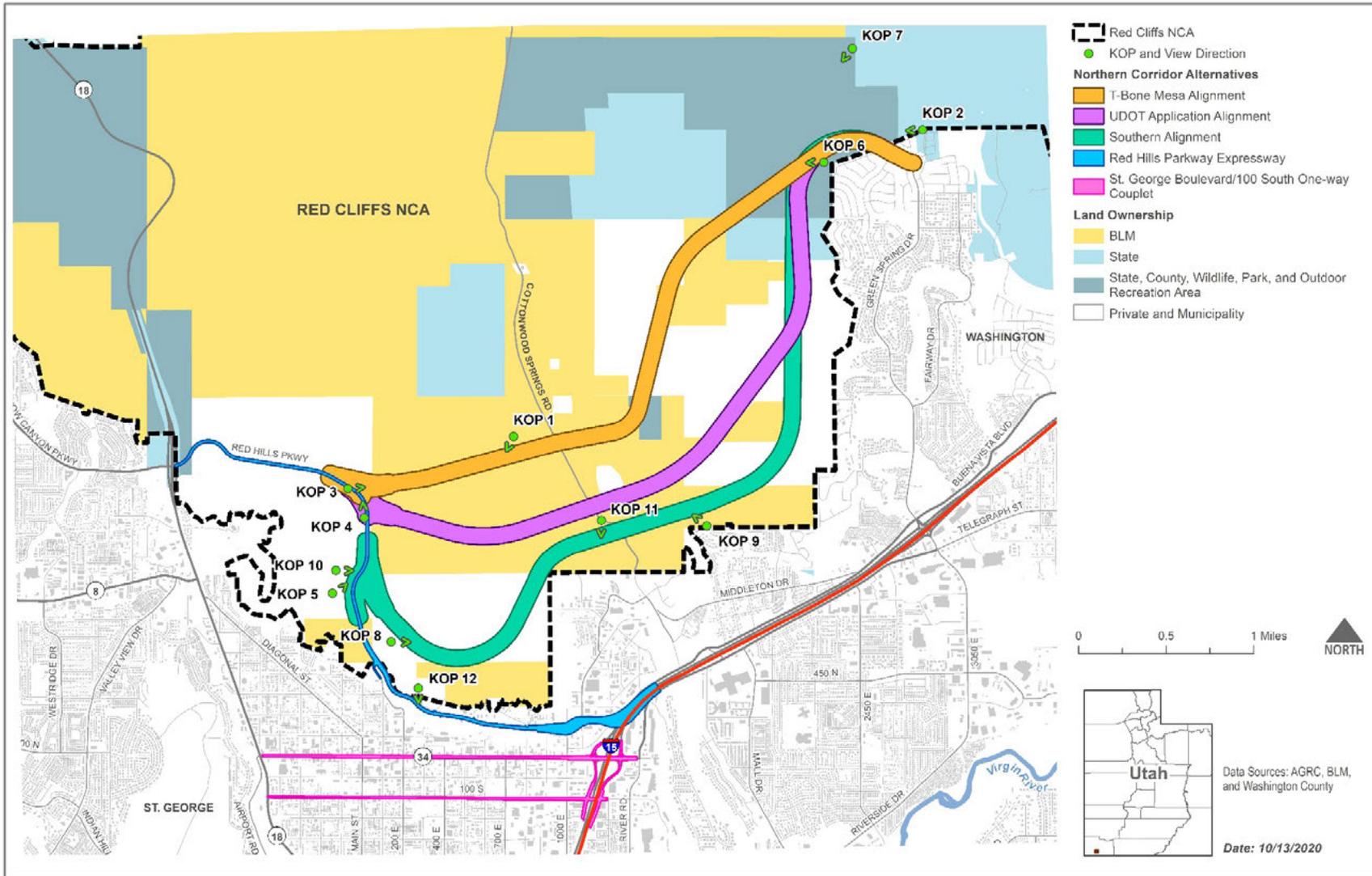
**Photo 1-52. Example of Transmission Line Glare and Skylighting**



Attachment 2  
Key Observation Points

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Map 2-1. KOP Locations



KOP1. T-Bone Trail West of Cottonwood Springs Drive Looking West, Existing Conditions



**KOP1. T-Bone Trail West of Cottonwood Springs Drive Looking West, T-Bone Mesa Alignment Simulation**



KOP2. Green Springs Residential Area at Mustang Pass Trailhead Looking West, Existing Conditions <sup>a</sup>



<sup>a</sup> simulated dusk view

KOP2. Green Springs Residential Area at Mustang Pass Trailhead Looking West <sup>a</sup>, T-Bone Mesa Alignment Simulation



<sup>a</sup> simulated dusk view

**KOP3. Red Hills Parkway East of Bluff Street Looking Northeast, Existing Conditions**



**KOP3. Red Hills Parkway East of Bluff Street Looking Northeast, T-Bone Mesa Alignment Simulation**



## KOP4. Red Hills Parkway North of Pioneer Hills Trailhead, Existing Conditions



**KOP4. Red Hills Parkway North of Pioneer Hills Trailhead, UDOT Application Alignment Simulation**



**KOP5. City Creek Trail Looking Northeast, Existing Conditions**



**KOP5. City Creek Trail Looking Northeast, UDOT Application Alignment Simulation**



**KOP6. Cottontail Trail Looking West, Existing Conditions**



**KOP6. Cottontail Trail Looking West, UDOT Application Alignment Simulation**



KOP7. Icehouse Trail Looking Southwest, Existing Conditions



**KOP7. Icehouse Trail Looking Southwest, UDOT Application Alignment Simulation**



## KOP8. Pioneer Rim Trail Looking East, Existing Conditions



**KOP8. Pioneer Rim Trail Looking East, Southern Alignment Simulation**



Northern Corridor – Highway Right-of-Way, Issuance of an Incidental Take Permit  
Final EIS and Proposed RMP Amendments

**KOP9. Middleton Residential Area Looking Northwest, Existing Conditions**



**KOP9. Middleton Residential Area Looking Northwest, Southern Alignment Simulation**



KOP10. City Creek Trail Looking East



**KOP10. City Creek Trail Looking East, Southern Alignment Simulation**



Northern Corridor – Highway Right-of-Way, Issuance of an Incidental Take Permit  
Final EIS and Proposed RMP Amendments

## KOP11. Cottonwood Springs Drive Looking South, Existing Conditions



**KOP11. Cottonwood Springs Drive Looking South, Southern Alignment Simulation**



Northern Corridor – Highway Right-of-Way, Issuance of an Incidental Take Permit  
Final EIS and Proposed RMP Amendments

## KOP12. Pioneer Park Looking South, Existing Conditions



**KOP12. Pioneer Park Looking South, Red Hills Expressway Simulation**



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Attachment 3  
Impact Evaluation Worksheets

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**Bureau of Land Management  
Visual Contrast Rating Worksheet**

**Section A. Project Information**

Project Name:	Northern Corridor		
Key Observation Point:	1		
Location: (lat/long)	37.13637580 / -113.56768825: T-Bone Trail just west of Trailhead on Cottonwood Springs Road		
Photograph Orientation:	Southwest		
Existing VRM Class:	Partially retained (Class III)		
Date:	2/11/20 4:49 PM		
Viewers:	Activity:	<input checked="" type="checkbox"/> Recreational	<input type="checkbox"/> Residential <input type="checkbox"/> Business/Commuter
	Number:	Medium (4-6)	Duration of View: Medium-Term (10 mins-1 hr)
ALTERNATIVE:	T-Bone Mesa Alignment		

Component	Section B. Characteristic Landscape Description (form, line, color, and texture)	Section C. Proposed Activity Description (form, line, color, and texture)	Section D: Contrast Rating
Land/Water Body	The landscape consists of a mostly undeveloped hillside that dominates the view. The topography trends downhill in the immediate foreground; an old dirt road scar in the middleground indicates a rise to a hilltop that forms a fairly horizontal line, beyond which low, pale purple mountains are visible in the background. No waterbodies are present.	The landscape includes a new road, drainage swales, and trail, with areas of fill in the foreground (to the right of the utility pole) that raise the road above the topographic depression. The road cuts through a hill in the far middleground, which changes the contours of the landscape by flattening the slopes in this view. The landscape character is no longer mostly undeveloped.	6.80
Vegetation	Low scrub vegetation of uniform height covers the entire hillside, creating a coarse, mostly unbroken homogenous texture and pattern of dark olive greens in the late afternoon light. A short row of pale yellow grasses are visible in the immediate foreground.	A wide swath of vegetation has been removed to accommodate the new roadway, diminishing the uniform covering provided by the vegetation and intactness of the view.	4.80
Structures	A slim, brown utility pole in the foreground slightly left of center is the sole vertical element in the view. A series of horizontal utility lines reflect glare from the sun on the south (left) side of the view, heightening their visibility in the foreground. These elements are primarily absorbed by the background landscape but are partially skylined against the horizon, interjecting humanmade components into a mostly undisturbed scene.	The new road cuts an obvious swath through the landscape, creating a strong linear element that is a focal point in the view. Moving vehicles further call attention to the road. Although the road's long linear form somewhat echoes the horizon lines, leading the eye toward a vanishing point below a tall mountain in the distance, the road's smooth texture and colors contrast with the surrounding vegetation.	6.70
Total			<b>6.10</b>

The VRI contrast rating is:

The VRM change is:

**Strong****Major modification (Class IV)**

**Section D. Contrast Rating Continued**

Does project design meet visual resources management objective?	<b>No</b>
<p>Explain: This viewpoint is in an area designated as VRM Class III and would view the Northern Corridor from a superior viewing angle. The description of VRM Class III states that the existing character of the landscape is partially retained, which is true in this view. However, the level of change to the characteristic landscape should be moderate, which this change exceeds, as the overall change is strong. The description for VRM Class III states that changes may attract attention but should not dominate the view. For KOP1, the change dominates the view. Furthermore, changes in VRM Class III lands should repeat the basic elements of form, line, color, and texture in the landscape. While the smooth road echoes the view's linear horizon line, it contrasts with the landscape's form (filled hill) and the color and texture of the surrounding vegetation, as well as introducing motion into the landscape. For these reasons, the revised character of the landscape would not meet VRM Class III objectives.</p>	

Additional mitigation measures recommended?	<b>No</b>
<p>Explain: The design elements identified for this project have been considered in this KOP, specifically: use irregular clearing shapes, feather/thin edges, minimize clearing size, utilize the edge effect for structure placement along natural vegetative breaks, round and/or warp slopes, tone down freshly broken rock faces, shape cuts and fills to appear as natural forms, and use earth-tone paints and stains. No further mitigation measures have been identified that could reduce impacts.</p>	

Scores/Rating is based on the following scale:

7 = Very Strong, 6 = Strong, 5 = Moderately Strong, 4 = Moderate, 3 = Moderately Weak, 2 = Weak, 1 = Very Weak, 0 = None

Foreground-middleground: less than 5 miles away. Background: between beyond foreground-middleground and 15 miles away.

**Bureau of Land Management  
Visual Contrast Rating Worksheet**

Section A. Project Information			
Project Name:	Northern Corridor		
Key Observation Point:	2		
Location: (lat/long)	37.16176128 / -113.52537774: North end of Green Springs residential area at Mustang Pass Trailhead		
Photograph Orientation:	West		
Existing VRM Class:	N/A		
Date:	2/12/2020 11:39:00 AM (lighting conditions modified to depict dusk)		
Viewers:	Activity:	<input checked="" type="checkbox"/> Recreational	<input checked="" type="checkbox"/> Residential <input type="checkbox"/> Business/Commuter
	Number:	Several (>6)	Duration of View: Long-Term (>1 hr)
ALTERNATIVE:	T-Bone Mesa Alignment		

Component	Section B. Characteristic Landscape Description (form, line, color, and texture)	Section C. Proposed Activity Description (form, line, color, and texture)	Section D: Contrast Rating
Land/Water Body	The north (right) side of the view is an expansive undeveloped desert landscape that slopes downhill in the immediate foreground and then gradually uphill to a primarily horizontal horizon line in the middleground capped with dark volcanic rocks that are slightly visible. Pale purple mountains rise slightly in the background in the center of the view; darker shadows indicate steep gullies. No waterbodies are present.	The expansive north (right) side of the view is occupied by a large, curving roadway that rises with the distant hill and generally follows the existing landforms, with the exception of filled areas at the curve. Given the horizontal nature of the roadway, these landform changes are indistinct in this dusk setting. However, they would be a prominent feature during daylight hours.	5.00
Vegetation	Low scrub vegetation of uniform height covers most of the landscape, creating a coarse, homogenous texture and pattern of dark olive greens against pale colored grasses. Tumbleweeds are caught in a fence in the immediate foreground.	A swath of vegetation has been removed, which is most obvious where the road curves. This change is indistinct in this dusk setting, but would be more prominent during daytime.	3.90
Structures	The Green Springs residential area butts directly against the RCNCA boundary, forming a straight dividing line and obvious edge in the center of the view traveling west that acts as a focal point. Houses are in various stages of development. Graded red dirt is visible between the buildings, which are distinguished primarily by their gray roofs. The immediate foreground includes a paved path, wire fence, and filled area enclosed by a stone wall. The developed area is a stark contrast against the expansive undisturbed landscape.	The roadway interjects a new transportation element that curves into the north (right) side of this elevated view. Although the road contrasts with the landscape to the north, it is somewhat absorbed by the developed, residential setting to the south (left). Lights on vehicles are mostly imperceptible from this location, but would be more prominent at a lower, closer viewpoint. During the daytime, the roadway would be more visually prominent.	5.40
<b>Total</b>			<b>4.77</b>

The VRI contrast rating is:  
The VRM change is:

**Moderately Strong**  
**N/A**

Section D. Contrast Rating Continued	
Does project design meet visual resources management objective?	
Explain: Views of the Northern Corridor would occur from a superior viewing angle and introduce motion into the landscape. This viewpoint is in an area that is not within BLM-managed lands; therefore, VRM does not apply.	

Additional mitigation measures recommended?	<b>No</b>
Explain: The design elements identified for this project have been considered in this KOP, specifically: use irregular clearing shapes, feather/thin edges, minimize clearing size, utilize the edge effect for structure placement along natural vegetative breaks, and use earth-tone paints and stains. No further mitigation measures have been identified that could reduce impacts.	

Scores/Rating is based on the following scale:

7 = Very Strong, 6 = Strong, 5 = Moderately Strong, 4 = Moderate, 3 = Moderately Weak, 2 = Weak, 1 = Very Weak, 0 = None

Foreground-middleground: less than 5 miles away. Background: between beyond foreground-middleground and 15 miles away.

**Bureau of Land Management  
Visual Contrast Rating Worksheet**

**Section A. Project Information**

Project Name:	Northern Corridor		
Key Observation Point:	3		
Location: (lat/long)	37.13205208 / -113.58482027: Red Hills Parkway approximately 1.13 miles east of Bluff Street		
Photograph Orientation:	East		
Existing VRM Class:	Partially retained (Class III)		
Date:	2/10/20 1:56 PM		
Viewers:	Activity:	<input checked="" type="checkbox"/> Recreational	<input checked="" type="checkbox"/> Residential <input checked="" type="checkbox"/> Business/Commuter
	Number:	Several (>6)	Duration of View: Short-term (<10 mins)
ALTERNATIVE:	T-Bone Mesa		

Component	Section B. Characteristic Landscape Description (form, line, color, and texture)	Section C. Proposed Activity Description (form, line, color, and texture)	Section D: Contrast Rating
Land/Water Body	This scene approximates views from Red Hills Parkway for eastbound drivers and users on the adjacent multi-use path. A large red rock cut created for the road is an imposing mass that dominates this view, disrupting the landform continuity. The rock cut displays a coarse, broken texture of varying shades of red, interjected with occasional white minerals. Middleground and background views are hidden by the cut. No waterbodies are present. The dramatic cut lends a slight degree of vividness by mimicking a natural red cliff.	The landform is completely modified, as the existing road cut has been removed and fill has been added to raise the elevated interchange. The new fill approximates the mass and height of the existing road cut, but is slightly farther away and the steep, angular face of the existing cut has been replaced with more sloping, vegetated hills. The realignment also opens the view, making it more expansive but still obscuring any background views. The color remains the same, but the texture has changed from that of broken cut rocks to vegetated soil.	6.70
Vegetation	Vegetation is sparse and consists of low spiky scrubs of uniform height and dark olive color is sporadically visible along the top of the cut, as well as within the road median and shoulders.	Substantially more vegetation is visible due to the revegetation on the filled slopes. Realigning Red Hills Parkway also adds more vegetation to the immediate foreground. The rounded clumps of vegetation create a repeating nubby texture that becomes more fine-grained in the distance.	5.20
Structures	Red Hills Parkway forms a gray plane of asphalt that forms a straight, slightly diagonal line in the immediate foreground within a prominent rock cut. Two cars are visible. This view is predominantly a transportation scene.	The elevated interchange introduces a new transportation element, which dominates the view. However, the view remains that of a transportation scene. The curved line of the overpass echoes the curved line of the realigned road and ramp below, which it mostly parallels. The overpass color is compatible with the setting.	6.20
<b>Total</b>			<b>6.03</b>

The VRI contrast rating is:

The VRM change is:

**Strong****Major Modification (Class IV)**

**Section D. Contrast Rating Continued**

Does project design meet visual resources management objective?	<b>No</b>
<p>Explain: This viewpoint includes views of VRM Class III. Views of the Northern Corridor from this location would be level. The description of VRM Class III states that the existing character of the landscape is partially retained, which is true in this view in that the character remains a transportation setting. However, the level of change to the characteristic landscape should be moderate, which this change exceeds, as the overall contrast is strong primarily due to the new overpass structure. In addition, the view is broader. The description for VRM Class III states that changes may attract attention but should not dominate the view. For KOP3, the overpass dominates the view. Furthermore, changes in VRM Class III lands should repeat the basic elements of form, line, color, and texture in the landscape. While the new structures share similar lines, the form (overpass) is different and the texture has changed from a cut rock surface to a vegetated expanse. For these reasons, the revised character of the landscape would not meet VRM Class III objectives.</p>	

Additional mitigation measures recommended?	<b>No</b>
<p>Explain: The design elements identified for this project have been considered in this KOP, specifically: use irregular clearing shapes, feather/thin edges, minimize clearing size, utilize the edge effect for structure placement along natural vegetative breaks, round and/or warp slopes, shape fills to appear as natural forms, blend with topographic forms in shape and placement, choose native plant species, use natural appearing forms to complement landscape character, and use earth-tone paints and stains. No further mitigation measures have been identified that could reduce impacts.</p>	

Scores/Rating is based on the following scale:

7 = Very Strong, 6 = Strong, 5 = Moderately Strong, 4 = Moderate, 3 = Moderately Weak, 2 = Weak, 1 = Very Weak, 0 = None

Foreground-middleground: less than 5 miles away. Background: between beyond foreground-middleground and 15 miles away.

**Bureau of Land Management  
Visual Contrast Rating Worksheet**

Section A. Project Information			
Project Name:	Northern Corridor		
Key Observation Point:	4		
Location: (lat/long)	37.12963663 / -113.58313794: Red Hills Parkway approximately 0.2 mile north of Pioneer Hills Trailhead		
Photograph Orientation:	Northeast		
Existing VRM Class:	Partially retained (Class III)		
Date:	2/10/20 1:32 PM		
Viewers:	Activity:	<input checked="" type="checkbox"/> Recreational	<input checked="" type="checkbox"/> Residential <input checked="" type="checkbox"/> Business/Commuter
	Number:	Several (>6)	Duration of View: Short-term (<10 mins)
ALTERNATIVE:	UDOT Application Alignment		

Component	Section B. Characteristic Landscape Description (form, line, color, and texture)	Section C. Proposed Activity Description (form, line, color, and texture)	Section D: Contrast Rating
Land/Water Body	Similar to KOP5, this view encompasses a low, flat-topped hill, beyond which is a black lava-capped mesa in the center middleground. Distant purple-hued Pine Valley mountains can be seen to the west (left). The buttes and mountains create an undulating horizon line of various hues and color intensity depending on distance. Black and red soil is intermittently visible among the vegetation, and a red road cut is visible to the west.	A large, imposing red-dirt fill occupies the foreground to the east (right), and a slightly lower fill is visible to the west (left), blocking the existing rock cut. The eastern fill dominates the scene and blocks farther views, particularly of the black buttes in the middleground.	6.90
Vegetation	Low scrub vegetation covers the hill in the foreground, creating an olive green dot pattern that becomes a more fine-grained texture on the black buttes. Similar types of plants sporadically occupy the roadway median, creating rounded, spiky shapes.	Vegetation is sporadically visible on the fill slope, its dark olive color creating a contrast against the red soil. This vegetative coverage is somewhat thinner than the hill beyond the fill, which is mostly obscured.	4.30
Structures	Red Hills Parkway and part of the adjacent multi-use path are visible in the immediate foreground. The road creates a straight, slightly diagonal line that somewhat parallels the hillside between the road and the buttes. Two motor vehicles are visible.	An elevated overpass creates a strong visual line that cuts diagonally across the view from east to west. This straight line is in contrast to the undulating shapes of the horizon line, and the movement of tall vehicles calls attention to it. The overpass support structures add hefty vertical elements to a scene that has none. Red Hills Parkway has been realigned, creating a curving line that echoes that of the new ramp to the east (right). The overpass casts strong shadows on the road, fill, and support structures.	6.90
<b>Total</b>			<b>6.03</b>

The VRI contrast rating is:  
The VRM change is:

**Strong**  
**Major Modification (Class IV)**

**Section D. Contrast Rating Continued**

Does project design meet visual resources management objective?	<b>No</b>
<p>Explain: This viewpoint includes views of VRM Class III. Views of the Northern Corridor would be inferior as the proposed bridge is constructed across an existing road. The description of VRM Class III states that the existing character of the landscape is partially retained, which is true in this view in that the character remains a transportation setting. However, the level of change to the characteristic landscape should be moderate, which this change exceeds, as the overall contrast is strong primarily due to the new overpass structure, which also blocks farther views. The description for VRM Class III states that changes may attract attention but should not dominate the view. For KOP4, the overpass dominates the view. Furthermore, changes in VRM Class III lands should repeat the basic elements of form, line, color, and texture in the landscape. The new overpass interjects a new form that creates a hard, linear line, as well as vertical support structures, that are not in the original setting. For these reasons, the revised character of the landscape would not meet VRM Class III objectives.</p>	

Additional mitigation measures recommended?	<b>No</b>
<p>Explain: The design elements identified for this project have been considered in this KOP, specifically: use irregular clearing shapes, feather/thin edges, minimize clearing size, utilize the edge effect for structure placement along natural vegetative breaks, round and/or warp slopes, shape fills to appear as natural forms, blend with topographic forms in shape and placement, choose native plant species, use natural appearing forms to complement landscape character, and use earth-tone paints and stains. No further mitigation measures have been identified that could reduce impacts.</p>	

Scores/Rating is based on the following scale:

7 = Very Strong, 6 = Strong, 5 = Moderately Strong, 4 = Moderate, 3 = Moderately Weak, 2 = Weak, 1 = Very Weak, 0 = None

Foreground-middleground: less than 5 miles away. Background: between beyond foreground-middleground and 15 miles away.

**Bureau of Land Management  
Visual Contrast Rating Worksheet**

**Section A. Project Information**

Project Name:	Northern Corridor		
Key Observation Point:	5		
Location: (lat/long)	37.12343818 / -113.58644197: City Creek Trail		
Photograph Orientation:	Northeast		
Existing VRM Class:	Partially retained (Class III)		
Date:	2/11/20 3:04 PM		
Viewers:	Activity:	<input checked="" type="checkbox"/> Recreational	<input type="checkbox"/> Residential <input type="checkbox"/> Business/Commuter
	Number:	Several (>6)	Duration of View: Medium-Term (10 mins-1 hr)
ALTERNATIVE:	UDOT Application Alignment		

Component	Section B. Characteristic Landscape Description (form, line, color, and texture)	Section C. Proposed Activity Description (form, line, color, and texture)	Section D: Contrast Rating
Land/Water Body	This expansive panorama encompasses a variety of landforms due to its elevation, and is particularly vivid due to the black lava-capped mesa in the middleground, beyond which the Red Cliff NCA's namesake red cliffs and distant purple-hued Pine Valley mountains can be seen. Red soil is visible among the vegetation, particularly in the immediate foreground, adding to the scene's colorful palette. The mass of the various landforms and their contrasting colors, textures, and shapes create diversity and visual interest. Few humanmade intrusions are visible, and the view is mostly intact and undisturbed.	An extensive amount of fill elevating the roadway cuts diagonally across the middleground and background. The straight line created by the fill is mostly consistent with the horizontal line indicating the top of the black buttes, but inconsistent with the irregular horizon line and curve of the existing road. However, the fill blends into the existing landscape and the new landform is barely detectable.	2.40
Vegetation	Low scrub vegetation forms small clumps in the immediate foreground of medium grain and density. Colors vary in value from pale sage to dark olive and are fairly regularly spaced; the density distribution becomes more graduated with distance and becomes indistinct. The varying color and texture of the foreground vegetation adds diversity and visual interest.	The fill has been revegetated with the same plant species in the existing landscape, helping the new roadway fit into the landscape.	1.20
Structures	A utility line traverses the center of the view traveling east to west (right to left) in the middleground. Three slim brown poles are obvious vertical elements but are partially absorbed by the landscape as they not skylined above the horizon line. Several transmission lines are visible in the glare of the sun, but are also subordinate. The horizontal lines generally parallel the more distant horizon line, minimizing the intrusion. Red Hills Parkway is partially visible to the east (right) as a partially hidden dark gray curve that follows the landscape contours.	The new road surface is barely detectable due to the view angle and distance. However, the movement of vehicles would draw attention to the road, but to a slight degree given the distance. The interchange with Red Hills Parkway is somewhat visible to the west (left) side of the view. However, this overpass structure is also inconspicuous.	3.00
<b>Total</b>			<b>2.20</b>

The VRI contrast rating is:

**Weak**

The VRM change is:

**Partially retained (Class III)**

**Section D. Contrast Rating Continued**

Does project design meet visual resources management objective?	<b>Yes</b>
<p>Explain: This viewpoint is in an area designated as VRM Class III with superior views of the Northern Corridor beyond an existing roadway. The description of VRM Class III states that the existing character of the landscape is partially retained, which is true in this view because the raised roadway is mostly undetectable, resulting in a weak overall contrast compared to existing conditions. The description for VRM Class III states that changes may attract attention but should not dominate the view, which this simulation demonstrates, as the distant landforms (the black mesa and distant cliffs and mountains) remain the dominant visual elements. Furthermore, changes in VRM Class III lands should repeat the basic elements of form, line, color, and texture in the landscape. The straight line created by the new roadway, while indistinct, echoes the mostly straight line of the black buttes, and the color and texture of the filled slopes are consistent with surrounding soil and vegetation. For these reasons, the revised character of the landscape in this particular view meets VRM Class III objectives.</p>	

Additional mitigation measures recommended?	<b>No</b>
<p>Explain: The design elements identified for this project have been considered in this KOP, specifically: use irregular clearing shapes, feather/thin edges, minimize clearing size, utilize the edge effect for structure placement along natural vegetative breaks, round and/or warp slopes, shape fills to appear as natural forms, and use earth-tone paints and stains. No further mitigation measures have been identified that could reduce impacts.</p>	

Scores/Rating is based on the following scale:

7 = Very Strong, 6 = Strong, 5 = Moderately Strong, 4 = Moderate, 3 = Moderately Weak, 2 = Weak, 1 = Very Weak, 0 = None

Foreground-middleground: less than 5 miles away. Background: between beyond foreground-middleground and 15 miles away.

**Bureau of Land Management  
Visual Contrast Rating Worksheet**

Section A. Project Information			
Project Name:	Northern Corridor		
Key Observation Point:	6		
Location: (lat/long)	37.15909067 / -113.53559530: Cottontail Trail adjacent to Green Springs residential area		
Photograph Orientation:	West		
Existing VRM Class:	N/A		
Date:	2/13/20 12:04 PM		
Viewers:	Activity:	<input checked="" type="checkbox"/> Recreational <input checked="" type="checkbox"/> Residential <input type="checkbox"/> Business/Commuter	
	Number:	Several (>6)	Duration of View: Medium-Term (10 mins-1 hr)
ALTERNATIVE:	UDOT Application Alignment		

Component	Section B. Characteristic Landscape Description (form, line, color, and texture)	Section C. Proposed Activity Description (form, line, color, and texture)	Section D: Contrast Rating
Land/Water Body	Foreground elements comprise the majority of this broad view, consisting of a wide red dirt double-track trail that curves slightly into the center of the scene, where it vanishes. The more distant middle- and background consists of low hills and some black-topped mesas to the east (right) that add variety to this mostly uniform view. However, due to their low height, the horizon line remains primarily horizontal.	A new road cut is visible as a horizontal line in the center of the view to the left of center. The cut is widest to the west (left). The red color of the cut is consistent with the foreground double-track. The slightly curved shape of the cut is similar to the subtle undulations in the farther hills. Although the line created by the road is roughly parallel with the horizon line, its smooth, level form is inconsistent with the shapes of the distant buttes.	3.20
Vegetation	Desert scrub vegetation forms low, rounded clumps in the immediate foreground in a pale sage and ochre color. A handful of taller, darker, and spikier plants interrupt the vegetation's overall homogeneity, but remain primarily indistinct. Vegetation appears as coarse, pale texture on the distant hills.	Foreground vegetation obscures the new road to the east (right) side of the view. The sparse vegetation on the new road cuts calls attention to them, but the cuts are partially hidden by the taller, spiker plants, which remain intact.	2.20
Structures	The red dirt track is an obvious humanmade element. A utility line is barely visible in the distance, primarily where the poles are skylined against the clear blue sky.	The new road is sporadically visible among the vegetation as two gray lines. The low viewing angle flattens the foreground, reducing the apparent size of the road from this view. Although mostly hidden, the strong, smooth line created by the road contrasts with the highly textural vegetation. In addition, moving vehicles would call attention to the road.	3.00
<b>Total</b>			<b>2.80</b>

The VRI contrast rating is:  
The VRM change is:

**Moderately Weak**  
**N/A**

Section D. Contrast Rating Continued	
Does project design meet visual resources management objective?	
Explain: Views of the Northern Corridor from this location would be level and mostly screened by vegetation. This viewpoint is in an area that is not within BLM-managed lands; therefore, VRM does not apply.	

Additional mitigation measures recommended?	<b>No</b>
Explain: The design elements identified for this project have been considered in this KOP, specifically: use irregular clearing shapes, feather/thin edges, minimize clearing size, utilize the edge effect for structure placement along natural vegetative breaks, shape cuts to appear as natural forms, and use earth-tone paints and stains. No further mitigation measures have been identified that could reduce impacts.	

Scores/Rating is based on the following scale:

7 = Very Strong, 6 = Strong, 5 = Moderately Strong, 4 = Moderate, 3 = Moderately Weak, 2 = Weak, 1 = Very Weak, 0 = None

Foreground-midground: less than 5 miles away. Background: between beyond foreground-midground and 15 miles away.

**Bureau of Land Management  
Visual Contrast Rating Worksheet**

**Section A. Project Information**

Project Name:	Northern Corridor		
Key Observation Point:	7		
Location: (lat/long)	37.16848687 / -113.53263857: Icehouse Trail north of Green Springs residential area		
Photograph Orientation:	Southwest		
Existing VRM Class:	N/A		
Date:	2/13/20 1:03 PM		
Viewers:	Activity:	<input checked="" type="checkbox"/> Recreational	<input type="checkbox"/> Residential <input type="checkbox"/> Business/Commuter
	Number:	Medium (4-6)	Duration of View: Medium-Term (10 mins-1 hr)
ALTERNATIVE:	UDOT Application Alignment		

Component	Section B. Characteristic Landscape Description (form, line, color, and texture)	Section C. Proposed Activity Description (form, line, color, and texture)	Section D: Contrast Rating
Land/Water Body	This view is primarily an expansive undeveloped desert landscape that slopes downhill in the foreground and middleground, and then gradually rises uphill to a fairly horizontal horizon line. Slight undulations in the landform are visible, as indicated by the Middleton Powerline Trail in the foreground. Pale purple mountains rise in the background. Otherwise, colors are limited to muted olive greens and tans. No waterbodies are present. Although the landscape is not visually distinctive or diverse, its broad, sweeping view from a high vantage point is remarkable.	The new road has been cut into the hillside on the south (left) side of the view, as well as farther into the distance, which flattens the slight undulations in the landscape. The cut depresses the road into the topography, partially obscuring the road just west of the residential area before the large curve, as well as beyond the farther hill cut. The road's color and smooth texture contrast with that of the surrounding landscape.	5.00
Vegetation	Vegetation is visible in the form of a nubby carpet of olive green and tan, creating a primarily uninterrupted but slightly uneven dot pattern and texture that becomes more fine-grained in the distance.	Vegetation has been removed to accommodate the new road, but remains intact throughout the majority of this view.	3.30
Structures	The Middleton Powerline Trail forms a subtle undulating line in the foreground. The utility line paralleling the trail is barely visible, as it is mostly absorbed by the background. The northern end of the Green Springs residential area is an incongruous intrusion on the southeast (left) side of the view. A road encircling the development creates a hard butt edge, within which a dense grouping of houses exist, indicated primarily by roofs of varying shades of gray. The road and roofs are somewhat reflective in the bright sunlight. The contrast between developed and undeveloped land is stark and degrades the otherwise natural character of the view.	The new road creates a strong, curving linear form whose lines are visible for a long distance. Its location to the east (left) side of the view is somewhat compatible with the adjacent residential development. However, this compatibility is diminished as the road travels farther south into the undeveloped area of the landscape. In addition, moving vehicles would draw further attention to the change.	6.60
<b>Total</b>			<b>4.97</b>

The VRI contrast rating is:  
The VRM change is:

**Moderately Strong**  
**N/A**

**Section D. Contrast Rating Continued**

Does project design meet visual resources management objective?	<b>No</b>
Explain: Distant views of the Northern Corridor from this location would be from a superior viewing angle. This viewpoint is in an area that is not within BLM-managed lands; therefore, VRM does not apply.	

Additional mitigation measures recommended?	<b>No</b>
Explain: The design elements identified for this project have been considered in this KOP, specifically: use irregular clearing shapes, feather/thin edges, minimize clearing size, utilize the edge effect for structure placement along natural vegetative breaks, round and/or warp slopes, tone down freshly broken rock faces, shape cuts and fills to appear as natural forms, and use earth-tone paints and stains. No further mitigation measures have been identified that could reduce impacts.	

Scores/Rating is based on the following scale:

7 = Very Strong, 6 = Strong, 5 = Moderately Strong, 4 = Moderate, 3 = Moderately Weak, 2 = Weak, 1 = Very Weak, 0 = None

Foreground-middleground: less than 5 miles away. Background: between beyond foreground-middleground and 15 miles away.

**Bureau of Land Management  
Visual Contrast Rating Worksheet**

Section A. Project Information			
Project Name:	Northern Corridor		
Key Observation Point:	8		
Location: (lat/long)	37.11940118 / -113.58035738: Pioneer Rim Trail northwest of Pioneer Park		
Photograph Orientation:	East		
Existing VRM Class:	N/A		
Date:	2/10/20 3:22 PM		
Viewers:	Activity:	<input checked="" type="checkbox"/> Recreational	<input type="checkbox"/> Residential <input type="checkbox"/> Business/Commuter
	Number:	Several (>6)	Duration of View: Medium-Term (10 mins-1 hr)
ALTERNATIVE:	Southern Alignment		

Component	Section B. Characteristic Landscape Description (form, line, color, and texture)	Section C. Proposed Activity Description (form, line, color, and texture)	Section D: Contrast Rating
Land/Water Body	The foreground, middleground, and background of this panoramic view are readily distinguishable by specific visual characteristics. The foreground is characterized by pale-hued vegetation that forms a horizontal line, beyond which the topography descends. The landscape rises beyond that as red-colored soil overlain with clumpy vegetation that forms a broad hillside, also creating a primarily horizontal line. Red and purple cliffs occupy the background and form a slightly undulating horizon line; vertical shadows indicate steep gullies. No waterbodies are present. The distinct Project-Level Distance Zone and varying colors add visual interest to this primarily intact landscape.	The hill in the middleground has been extensively cut to accommodate the new road. The largest cut, which is on the south (right) side of the view, is a dominant visual element where the road makes a substantial curve. The cuts on both sides of the curve slope fairly steeply down to the roadbed, disrupting the natural rise of the hillside.	6.80
Vegetation	Bright pale yellow grasses intersperse rounded clumps of sage-hued vegetation in the foreground, adding texture and color that contrasts against the middleground. Vegetation is more indistinct but detectable as contrasting texture and pattern on the red soil of the hill in the middleground.	Removing a substantial portion of the hillside has also removed vegetation. Some vegetation has regrown on the rock cuts, helping them blend into the hillside, particularly to the north (left) of the center of the view.	4.40
Structures	Humanmade structures are visible only in the distance and are therefore indistinct. A utility line roughly parallels, but is below, the horizon line, and is therefore visually absorbed by the landforms. The City of St. George is partially visible in the background to the south (right) below, and backdropped against, the distant cliffs.	The road is a new and obvious humanmade element in a view that was predominantly undisturbed. Although the road is less evident to the north (left) due to the viewing angle, it becomes prominent as the topography rises at the curve. At this point, the view of the road also widens, making it more conspicuous. The moving vehicles would make the change more obvious.	6.90
<b>Total</b>			<b>6.03</b>

The VRI contrast rating is:  
The VRM change is:

**Strong**  
**N/A**

Section D. Contrast Rating Continued	
Does project design meet visual resources management objective?	
Explain: Views of the Northern Corridor from this location would be from a superior viewing angle level and introduce motion into the landscape. This viewpoint is in an area that is not within BLM-managed lands; therefore, VRM does not apply.	

Additional mitigation measures recommended?	<b>No</b>
Explain: The design elements identified for this project have been considered in this KOP, specifically: use irregular clearing shapes, feather/thin edges, minimize clearing size, utilize the edge effect for structure placement along natural vegetative breaks, round and/or warp slopes, tone down freshly broken rock faces, shape cuts and fills to appear as natural forms, and use earth-tone paints and stains. No further mitigation measures have been identified that could reduce impacts.	

Scores/Rating is based on the following scale:

7 = Very Strong, 6 = Strong, 5 = Moderately Strong, 4 = Moderate, 3 = Moderately Weak, 2 = Weak, 1 = Very Weak, 0 = None

Foreground-middleground: less than 5 miles away. Background: between beyond foreground-middleground and 15 miles away.

**Bureau of Land Management  
Visual Contrast Rating Worksheet**

**Section A. Project Information**

Project Name:	Northern Corridor			
Key Observation Point:	9			
Location: (lat/long)	37.12897592 / -113.54768476: Middleton residential area, northwest end of E 1200 N Road			
Photograph Orientation:	Northwest			
Existing VRM Class:	Partially retained (Class III)			
Date:	2/12/20 3:15 PM			
Viewers:	Activity:	<input checked="" type="checkbox"/> Recreational	<input checked="" type="checkbox"/> Residential	<input type="checkbox"/> Business/Commuter
	Number:	Several (>6)	Duration of View:	Long-Term (>1 hr)
ALTERNATIVE:	Southern Alignment			

Component	Section B. Characteristic Landscape Description (form, line, color, and texture)	Section C. Proposed Activity Description (form, line, color, and texture)	Section D: Contrast Rating
Land/Water Body	This mostly undeveloped view is framed on the west (left) by tall, prominent buttes in the foreground and middleground capped with black volcanic rock outcrops; the black rocks and soil are somewhat visible along the hillside through sparse vegetation. The row of buttes form an undulating vanishing line toward smaller, more distant formations in the background. These buttes block views farther west (left). A red dirt trail in the immediate foreground leads the eye toward these buttes before disappearing into a broad ravine. No waterbodies are present. The landscape broadens and rises slightly to the east (right), where the horizon line mostly flattens and red soil is visible through the vegetation. The imposing mass of the buttes dominate the view, and the black and red soil and rocks add color contrast.	The closest butte (left side of view) has been cut to accommodate a bridge, removing the black rock outcrop and smoothing the downslope, which is in shadow from the bridge deck. The farther buttes are no longer visible. A substantial amount of fill has been placed on the east (right) side of the view to support the bridge, greatly increasing the height of the low hill in that area.	6.90
Vegetation	Vegetation consists of low, spiky scrubs that appear as rounded mounds of light gray and pale yellow in the immediate foreground. Vegetation is intermittently spaced in the foreground and to the east (right), showing patches of red soil against sage green plants. These plants create a medium-grained, medium-density yellow-hued surface pattern on the buttes, through which black soil and rocks are visible.	Vegetation has been removed from the butte on the west (left) side of the view, but has partially regrown. Vegetation has also grown on the fill, matching the form and pattern of the existing vegetation.	4.30
Structures	Transmission towers associated with the substation on Cottonwood Springs Road are visible in the distance at a low point in the row of buttes. Although slim due to distance, they are prominent vertical elements against the sky. However, their small number and size are a minimal visual intrusion.	The bridge's length and close proximity to the viewer makes it an obvious new structure dominating a mostly undeveloped view, particularly where skylined against the bright blue sky. The bridge span occupies most of the view, creating a strong horizontal line that contrasts with the undulating landforms. Tall moving vehicles would call further attention to the bridge. The bridge supports introduce several new, prominent vertical elements in a landscape that has few; however, the bridge partially obscures the utility towers in the distance. The bridge colors are similar to those in the landscape.	7.00
<b>Total</b>			<b>6.07</b>

The VRI contrast rating is:

**Strong**

The VRM change is:

**Major modification (Class IV)**

**Section D. Contrast Rating Continued**

Does project design meet visual resources management objective?	<b>No</b>
<p>Explain: This viewpoint is in an area designated as VRM Class III and would view the Northern Corridor from an inferior viewing angle. The description of VRM Class III states that the existing character of the landscape is partially retained, which is not true in this view as the new bridge changes it from a predominantly natural character to a transportation character. In addition, the level of change to the characteristic landscape should be moderate, which this change exceeds as the contrast is strong. The description for VRM Class III also states that changes should attract attention but not dominate the view. For KOP9, the change dominates the view. Furthermore, changes in VRM Class III lands should repeat the basic elements of form, line, color, and texture in the landscape. The strong linear and vertical components of the bridge deck and supports, as well as their smooth forms, contrast with the landscape's undulating forms and texture. For these reasons, the revised character of the landscape would not meet VRM Class III objectives.</p>	
Additional mitigation measures recommended?	<b>Yes</b>
<p>Explain: The design elements identified for this project have been considered in this KOP, specifically: round and/or warp slopes, tone down freshly broken rock faces, shape cuts and fills to appear as natural forms, blend with topographic forms in shape and placement, choose native plant species, use natural appearing forms to complement landscape character, and use earth-tone paints and stains. No further mitigation measures have been identified that could reduce impacts.</p>	

Scores/Rating is based on the following scale:

7 = Very Strong, 6 = Strong, 5 = Moderately Strong, 4 = Moderate, 3 = Moderately Weak, 2 = Weak, 1 = Very Weak, 0 = None

Foreground-middleground: less than 5 miles away. Background: between beyond foreground-middleground and 15 miles away.

**Bureau of Land Management  
Visual Contrast Rating Worksheet**

Section A. Project Information			
Project Name:	Northern Corridor		
Key Observation Point:	10		
Location: (lat/long)	37.12529635 / -113.58604730: City Creek Trail		
Photograph Orientation:	East		
Existing VRM Class:	Partially retained (Class III)		
Date:	2/11/20 2:53 PM		
Viewers:	Activity:	<input checked="" type="checkbox"/> Recreational <input type="checkbox"/> Residential <input type="checkbox"/> Business/Commuter	
	Number:	Medium (4-6)	Duration of View: Medium-Term (10 mins-1 hr)
ALTERNATIVE:	Southern Alignment		

Component	Section B. Characteristic Landscape Description (form, line, color, and texture)	Section C. Proposed Activity Description (form, line, color, and texture)	Section D: Contrast Rating
Land/Water Body	This elevated, mostly undeveloped panorama is primarily occupied by an expansive low hill in the middleground, the top of which forms a slightly curving line. Red and purple cliffs are visible in the background, also forming a slightly undulating but fairly horizontal horizon line; vertical shadows indicate steep gullies. A road cut to accommodate Red Hills Parkway is distinctly visible as a red horizontal swath in the foreground traveling north to south (left to right). The lack of vegetation, shadows formed by the cut rocks, and white minerals call further attention to the rock cut. This cut interrupts the continuity of the landform. No waterbodies are present.	Filled slopes have been added to the middleground hill to accommodate an overpass. The effect is that of another hill in the middleground. A new rock cut is visible to the south (right), where Red Hills Parkway is realigned. The old rock cut, no longer required for the road, remains visible.	5.00
Vegetation	Dark gray-green low, spikey shrubs sporadically occupy the immediate foreground, through which flat, red rock slabs are visible. Similar dark olive and gray vegetation blankets the foreground hill, creating a dot pattern that becomes more fine-grained with distance.	The new fill slopes have been vegetated with plant species similar to the surroundings, but vegetation has been removed where the new roadway elements have been added. In addition, the overpass and road somewhat block views of the vegetated hill beyond them.	3.90
Structures	Red Hills Parkway is not visible, only the rock cut created for it. Utility poles form a diagonal row mostly on the north (left) side of the view, becoming smaller with distance. These poles are set against the hillside and distant cliffs, helping absorb their visual impact, as they are the only vertical elements in the view.	The overpass carrying the new alignment creates a strong, slightly curved horizontal line in the center of the view. Red Hills Parkway has been substantially realigned to curve away from its existing route to meet the overpass. The rerouted road appear as another line extending from the overpass to the south (right). The mostly horizontal lines formed by two connecting ramps are slightly visible. All of these new horizontal lines disrupt the landscape's continuity, but somewhat repeat the horizon line and existing rock cut. However, moving vehicles would call further attention to these new transportation elements introduced to a primarily natural setting.	6.60
<b>Total</b>			<b>5.17</b>

The VRI contrast rating is: **Moderately Strong**  
 The VRM change is: **Major Modification (Class IV)**

**Section D. Contrast Rating Continued**

Does project design meet visual resources management objective?	<b>No</b>
Explain: This viewpoint includes views of VRM Class III. Views of the Northern Corridor from this location would be from a superior viewing angle level and introduce motion into the landscape. The description of VRM Class III states that the existing character of the landscape is partially retained, which is not true of this view, because it changed from a primarily undeveloped character to a transportation character. In addition, the level of change to the characteristic landscape should be moderate, which this change exceeds for the same reason; the level of contrast is moderately strong. The description for VRM Class III also states that changes should attract attention but not dominate the view. For KOP10, the change dominates the view, as it traverses the entire middleground. Furthermore, changes in VRM Class III lands should repeat the basic elements of form, line, color, and texture in the landscape. The road and overpass contrast with the form, color, and texture of the hill through which the interchange is built. For these reasons, the revised character of the landscape would not meet VRM Class III objectives.	

Additional mitigation measures recommended?	<b>No</b>
Explain: The design elements identified for this project have been considered in this KOP, specifically: use irregular clearing shapes, feather/thin edges, minimize clearing size, utilize the edge effect for structure placement along natural vegetative breaks, round and/or warp slopes, shape fills to appear as natural forms, blend with topographic forms in shape and placement, choose native plant species, use natural appearing forms to complement landscape character, and use earth-tone paints and stains. No further mitigation measures have been identified that could reduce impacts.	

Scores/Rating is based on the following scale:  
 7 = Very Strong, 6 = Strong, 5 = Moderately Strong, 4 = Moderate, 3 = Moderately Weak, 2 = Weak, 1 = Very Weak, 0 = None  
 Foreground-middleground: less than 5 miles away. Background: between beyond foreground-middleground and 15 miles away.

**Bureau of Land Management  
Visual Contrast Rating Worksheet**

**Section A. Project Information**

Project Name:	Northern Corridor		
Key Observation Point:	11		
Location: (lat/long)	37.12942202 / -113.55858975: Cottonwood Springs Road		
Photograph Orientation:	South		
Existing VRM Class:	Partially retained (Class III)		
Date:	2/13/20 4:25 PM		
Viewers:	Activity:	<input checked="" type="checkbox"/> Recreational	<input type="checkbox"/> Residential <input type="checkbox"/> Business/Commuter
	Number:	Several (>6)	Duration of View: Short-term (<10 mins)
ALTERNATIVE:	Southern Alignment		

Component	Section B. Characteristic Landscape Description (form, line, color, and texture)	Section C. Proposed Activity Description (form, line, color, and texture)	Section D: Contrast Rating
Land/Water Body	This mostly undeveloped view includes a hillside that slopes downward in the immediate foreground that then trends uphill, creating a slight undulation. Vegetation tints the hill a pale yellow hue, beyond which is a series of low cliffs. The closest cliffs are a vivid red, striated with darker lines indicating shadows formed by steep gullies. Farther cliffs in the background to the east (left) display a lighter hue due to distance. These cliffs add vivid, contrasting color and texture to an otherwise unremarkable view.	A new, red-hued rock cut is visible beyond the BLM sign to the east (left) side of the view. Although this cut is a new visual element, it echoes the color and shape of the background cliffs, helping it fit into the view.	3.10
Vegetation	Dry pale yellow grasses carpet the foreground, interspersed with clumps of olive green shrubs that form a random dot pattern that is denser to the west (right). Vegetation is more sparse in the immediate foreground where the road slopes slightly down and to the west (right).	A swath of yellow vegetation has been replaced with the new road in the foreground, changing the color on the cut. Overall, most vegetation remains intact. Small clumps of vegetation has sporadically regrown on the rock cut.	2.70
Structures	Cottonwood Springs Road forms a dark gray curving ribbon that leads the eye into the foreground and vanishes into a bend. The curve of the road echoes the subtle curves of the landscape. The matte grey background of a BLM entrance sign is to the east (left) but is unobtrusive. A short metal post-and-wire fence is barely discernable to the west (right), as its slim lines are mostly absorbed by the landscape behind it.	The new road appears as a thin horizontal line on the east (left) side of the view. The straight line it creates contrasts with the curve of Cottonwood Springs Road in the foreground, and the slight curves of the surrounding landforms. Tall traffic lights are conspicuous vertical elements that call attention to the intersection, and moving vehicles would call further attention to the new road.	4.90
<b>Total</b>			<b>3.57</b>

The VRI contrast rating is:

The VRM change is:

**Moderate****Partially retained (Class III)**

**Section D. Contrast Rating Continued**

Does project design meet visual resources management objective?	<b>Yes</b>
<p>Explain: The viewpoint is in an area designated as VRM Class III with level to slightly superior views of the Northern Corridor. These views would be partially screened by topography. The description of VRM Class III states that the existing character of the landscape is partially retained, which is primarily true in this view. The level of change to the characteristic landscape should be moderate, which this change exhibits. The description for VRM Class III also states that changes should attract attention but not dominate the view, which is true in this view that includes an existing road in the foreground. Furthermore, changes in VRM Class III lands should repeat the basic elements of form, line, color, and texture in the landscape. The new road repeats the same elements of the existing road to a large degree. For these reasons, the revised character of the landscape in this particular view remains VRM Class III.</p>	

Additional mitigation measures recommended?	<b>No</b>
<p>Explain: The design elements identified for this project have been considered in this KOP, specifically: use irregular clearing shapes, feather/thin edges, minimize clearing size, utilize the edge effect for structure placement along natural vegetative breaks, round and/or warp slopes, tone down freshly broken rock faces, shape cuts to appear as natural forms, blend with topographic forms in shape and placement, choose native plant species, use natural appearing forms to complement landscape character, and use earth-tone paints and stains. No further mitigation measures have been identified that could reduce impacts.</p>	

Scores/Rating is based on the following scale:

7 = Very Strong, 6 = Strong, 5 = Moderately Strong, 4 = Moderate, 3 = Moderately Weak, 2 = Weak, 1 = Very Weak, 0 = None

Foreground-middleground: less than 5 miles away. Background: between beyond foreground-middleground and 15 miles away.

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**FHWA**  
**Visual Quality Evaluation**

**Project Information**

Project Name:	Northern Corridor		
Key Observation Point:	12		
Location:	37.11554493 / -113.57750595: Pioneer Park		
Photograph Orientation:	South		
Date:	2/12/20 9:46 AM		
Viewers:	Activity:	<input checked="" type="checkbox"/> Recreational	<input type="checkbox"/> Residential
			<input type="checkbox"/> Business/Commuter
	Number:	Several (>6)	Duration of View: Long-Term (>1 hr)
ALTERNATIVE:	Red Hills Expressway Alignment		

**Visual Quality**

**Vividness** (degree of drama, memorability or distinctiveness of features from a regional perspective)

Component	Existing Description (form, line, color, and texture)	Existing Score*	Description with Alternative (form, line, color, and texture)	Score with Alternative*
Landform	This view toward Red Hills Expressway from a rock outcrop at Pioneer Park shows the bright red soil of the park in the foreground covering a hill that slopes downward to Red Hills Expressway. The City of St. George occupies the valley beyond the road. Distant hills, buttes, and mountains are visible in the background in varying shades of olive green and purple. The contrasting colors and the dramatic vista have a high degree of vividness.	6.30	No change to the landform is visible as the changes remain within the same footprint and follow the same route as the existing road, without change to elevation (e.g., no cut or fill).	6.30
Vegetation	Small intermittent rounded clumps of desert scrubs are in the immediate foreground. Landscaped trees are visible in the city in the distance but appear more like a carpet due to distance. The far hillsides are covered in olive green indicative of vegetation cover. Vegetation does not meaningfully contribute to the view's vividness.	3.20	Minimal, if any, vegetation is removed for the reasons listed above.	3.20
Water Feature	None	n/a	None	n/a
Human-Made	Red Hills Parkway and a parking lot for Pioneer Park, including a small restroom, are visible in the foreground. A tall telephone pole is a conspicuous vertical element. Beyond the road, several buildings occupy a broad valley that comprise the City of St. George. Buildings to the west (right) are closer and appear larger.	4.80	The roadway striping is slightly different and pavement is new, which is barely detectable. No other noticeable visual change is visible for the reasons listed above.	4.90
Total/Summary	The sweeping view and variety of landforms and colors add drama and make the scene memorable.	4.77	The slight changes to landform, vegetation, and human-made elements is barely noticeable. Fresh pavement improves the view very slightly.	4.80

**Intactness** (fit with natural and human-built landscape and degree of attention given to aesthetics of human-made objects; degree of encroachment from out of place elements)

Component	Existing Description (form, line, color, and texture)	Existing Score*	Description with Alternative (form, line, color, and texture)	Score with Alternative*
Development	The buildings are mostly of uniform height and bulk, particularly those most discernable to the west (right). Their colors, primarily tans and brick reds, echo those of the surrounding landscape. A large, white church to the east (left) is a prominent landmark.	4.80	No change to the buildings has occurred.	4.80

Encroachment	Although some buildings encroach onto the tops of buttes to the west (right), the City of St. George fits within the confines of the valley and forms an orderly appearance. The road and parking lot follow the curved line of the cliff on which it is built. The telephone pole is out of place, but is a minor element.	4.90	The new road does not further encroach onto the view.	4.90
Total/Summary	The City of St. George fits fairly well within the landscape; the view is interrupted by the foreground telephone pole, but is a minor distraction.	4.85	The scene remains intact, as no changes to intactness are visible.	4.85

Unity (degree to which visual resources combine to form a coherent, harmonious visual pattern in the landscape)				
Component	Existing Description (form, line, color, and texture)	Existing Score*	Description with Alternative (form, line, color, and texture)	Score with Alternative*
Unity	The foreground, middleground, and background are comprised of distinctly different landscape features, creating specific horizontal bands of landscape character. However, each distance zone displays a coherent internal visual pattern typically uninterrupted by conflicting components.	5.20	No change to unity has occurred.	5.20
Total/Summary	Overall unity is close to high due to cohesion within each distance zone.	5.20	Unity remains the same, as no changes to unity are visible.	5.20

**Overall Visual Quality Score**

<b>Overall Existing Visual Quality Score</b>	4.94
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<b>Overall Visual Quality Score with Alternative</b>	4.95
--	------

<b>Compatibility with Pattern Elements (form line, color, texture)</b>	High
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Rationale: Modifications to form, line, color, and texture are barely discernable as the changes to the roadway share these same elements.

<b>Pattern Character Elements (Dominance, Scale, Diversity, Continuity)</b>	High
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Rationale: No change to dominance, scale, diversity, and continuity is present as the roadway remains within the existing footprint and follows the same route.

**\*Scores/Rating is based on the following scale:**

7 = Very High, 6 = Moderately High, 5 = High, 4 = Medium, 3 = Moderately Low, 2 = Low, 1 = Very Low, 0 = None

**\*\*Distance Zones are described as:** Foreground (0 to 0.25 mile), Middleground (0.25 mile to 0.75), and Background (0.75 mile and beyond)



**Appendix N: Special Status Wildlife Species Habitat Types**

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## Appendix N. Special Status Wildlife Species Habitat Types

GIS data identifying suitable habitat for each species were not available for the analysis of impacts to special status wildlife species. Therefore, GIS data of existing vegetation types (EVT, from the LANDFIRE dataset) were used to identify habitat types for each species. EVTs were combined into groups identified as habitat types. Table N-1 identifies the habitat types that were used to identify the number of acres of suitable habitat for each special status wildlife species in the analysis area. Table N-2 identifies the EVTs in the analysis area and which EVTs were attributed to each habitat type.

**Table N-1. Habitats Used to Calculate Acres Impacted for Each Special Status Wildlife Species**

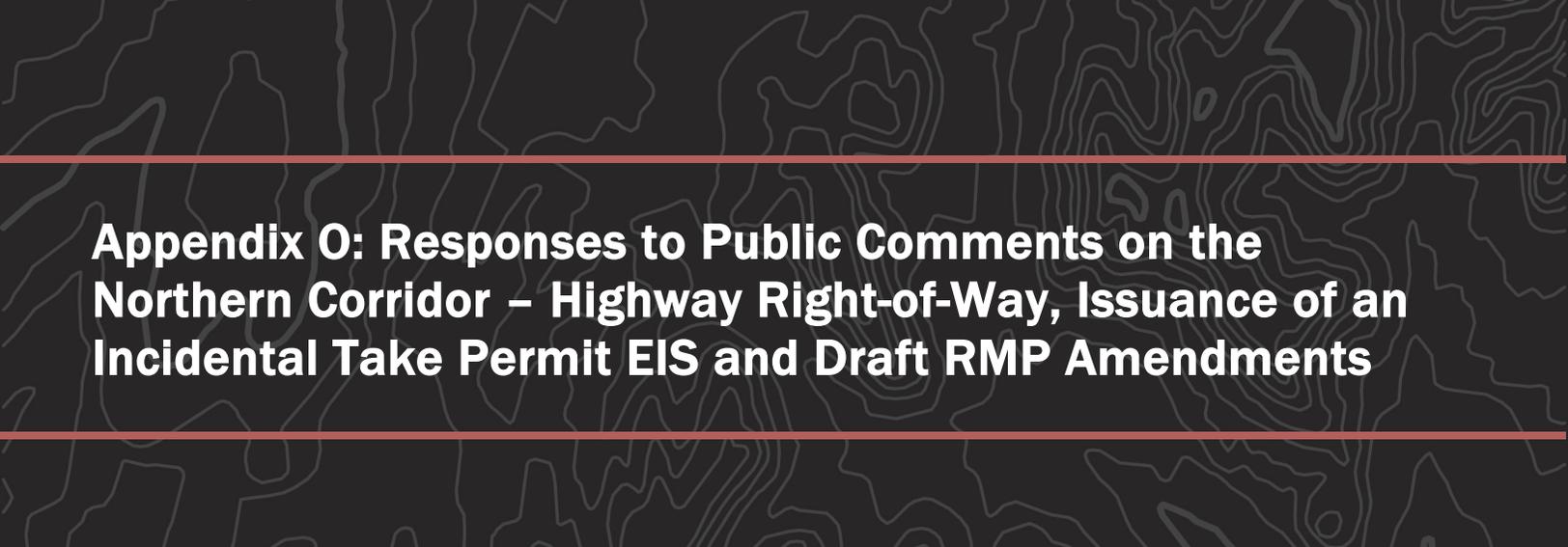
Species	Habitat Types
Arizona toad	Open water, washes, riparian, croplands, sandy areas
Common chuckwalla	Cliffs, canyons, and rocky outcrops; desert scrub
Desert night lizard	Cliffs, canyons, and rocky outcrops; desert scrub; chaparral; pinyon-juniper woodland; other woodlands
Gila monster	Washes; cliffs, canyons, and rocky outcrops; desert scrub; sagebrush; sandy areas
Sidewinder	Washes; desert scrub; sagebrush; sandy areas
Western banded gecko	Washes; cliffs, canyons, and rocky outcrops; desert scrub; desert pavement; sagebrush; sandy areas; open plateaus; grassland
Western threadsnake	Desert scrub; desert pavement; chaparral; grassland; pinyon-juniper woodland; other woodlands
Zebra-tailed lizard	Washes; desert scrub; desert pavement; sagebrush; sandy areas
Bald eagle	Open water, riparian, conifer forest
Burrowing owl	Washes, croplands, pastures, desert scrub, sagebrush, sandy areas, grassland, shrub steppe, weedy fields
Ferruginous hawk	Croplands, pastures, sagebrush, grassland, shrub steppe, weedy fields
Golden eagle	Riparian; cliffs, canyons, and rocky outcrops; desert scrub; grassland; shrub steppe; shrublands; weedy fields
Short-eared owl	Croplands, pastures, grassland, shrub steppe, shrublands, meadows, weedy fields
Allen's big-eared bat	Riparian; cliffs, canyons, and rocky outcrops; desert scrub; shrublands; pinyon-juniper woodland; other woodlands; conifer forest
Big free-tailed bat	Cliffs, canyons, and rocky outcrops; desert scrub; grassland; shrub steppe; shrublands; pinyon-juniper woodland; other woodlands
Fringed myotis	Desert scrub, sagebrush, chaparral, grassland, shrubland, pinyon-juniper woodland, other woodlands, conifer forest
Kit fox	Washes; cliffs, canyons, and rocky outcrops; desert scrub; desert pavement; sagebrush; sandy areas; chaparral; grassland; shrubland
Spotted bat	Riparian; cliffs, canyons, and rocky outcrops; desert scrub; chaparral; grassland; pinyon-juniper woodland; other woodlands; conifer forest; meadows
Townsend's big-eared bat	Riparian; cliffs, canyons, and rocky outcrops; desert scrub; sagebrush; grassland; shrubland; pinyon-juniper woodland; other woodlands; conifer forest
Western red bat	Riparian, croplands, grassland, shrubland
Mojave poppy bee	Bear poppy habitat (suitable habitat mapped—includes desert scrub), prickly poppy habitat (disturbed roadsides, overgrazed pastures, sandy areas, washes, sagebrush, pinyon-juniper woodland, conifer forest)
Monarch butterfly	Riparian; cliffs, canyons, and rocky outcrops; conifer forest; meadows
Western bumble bee	Riparian, grassland, pinyon-juniper woodland, other woodlands, conifer forest, meadows

**Table N-2. Existing Vegetation Types That Comprise Special Status Wildlife Habitats**

<b>Habitat Types</b>	<b>Existing Vegetation Types</b>
Chaparral	Great Basin Semi-Desert Chaparral
	Mogollon Chaparral
	Sonora-Mojave Semi-Desert Chaparral
Cliffs, Canyons, and Rocky Outcrops	Inter-Mountain Basins Cliff and Canyon
	Inter-Mountain Basins Volcanic Rock and Cinder Land
	North American Warm Desert Bedrock Cliff and Outcrop
	Rocky Mountain Cliff Canyon and Massive Bedrock
Conifer	Southern Rocky Mountain Dry-Mesic Montane Mixed Conifer Forest and Woodland
	Southern Rocky Mountain Mesic Montane Mixed Conifer Forest and Woodland
Cropland	Western Cool Temperate Close Grown Crop
	Western Cool Temperate Row Crop
	Western Warm Temperate Close Grown Crop
	Western Warm Temperate Fallow/Idle Cropland
	Western Warm Temperate Row Crop
Desert Pavement	North American Warm Desert Pavement
Desert Scrub	Inter-Mountain Basins Mixed Salt Desert Scrub
	Mojave Mid-Elevation Mixed Desert Scrub
	Sonora-Mojave Creosotebush-White Bursage Desert Scrub
	Sonora-Mojave Mixed Salt Desert Scrub
Disturbed Roadsides	Developed-Roads
Grassland	Inter-Mountain Basins Semi-Desert Grassland
	Inter-Mountain Basins Juniper Savanna
	Recently Disturbed Other-Herb and Grass Cover
Meadows	Rocky Mountain Subalpine-Montane Mesic Meadow
	Western North American Ruderal Wet Meadow & Marsh
Open Plateaus	Colorado Plateau Mixed Bedrock Canyon and Tableland
Other Woodland	Inter-Mountain Basins Curl-leaf Mountain Mahogany Woodland
Pasture	Western Cool Temperate Pasture and Hayland
	Western Warm Temperate Pasture and Hayland
Pinyon-Juniper Woodland	Colorado Plateau Pinyon-Juniper Shrubland
	Colorado Plateau Pinyon-Juniper Woodland
	Great Basin Pinyon-Juniper Woodland
Riparian	Great Basin Foothill and Lower Montane Riparian Herbaceous
	Great Basin Foothill and Lower Montane Riparian Shrubland
	Great Basin Foothill and Lower Montane Riparian Woodland
	Interior West Ruderal Riparian Scrub
	North American Warm Desert Lower Montane Riparian Shrubland
	North American Warm Desert Lower Montane Riparian Woodland
	North American Warm Desert Riparian Herbaceous
	North American Warm Desert Riparian Mesquite Bosque Shrubland
	North American Warm Desert Riparian Mesquite Bosque Woodland
	North American Warm Desert Riparian Shrubland
	North American Warm Desert Riparian Woodland
	Rocky Mountain Lower Montane-Foothill Riparian Woodland

<b>Habitat Types</b>	<b>Existing Vegetation Types</b>
<b>Sagebrush</b>	Colorado Plateau Mixed Low Sagebrush Shrubland
	Great Basin Xeric Mixed Sagebrush Shrubland
	Inter-Mountain Basins Big Sagebrush Shrubland
	Inter-Mountain Basins Montane Sagebrush Steppe
<b>Sandy Areas</b>	Inter-Mountain Basins Active and Stabilized Dune
	Southern Colorado Plateau Sand Shrubland
<b>Shrub Steppe</b>	Inter-Mountain Basins Semi-Desert Shrub-Steppe
<b>Shrubland</b>	Colorado Plateau Blackbrush-Mormon-tea Shrubland
	Inter-Mountain Basins Greasewood Flat
	Rocky Mountain Gambel Oak-Mixed Montane Shrubland
	Rocky Mountain Lower Montane-Foothill Shrubland
<b>Streams/Open Water</b>	Open Water
<b>Wash</b>	North American Warm Desert Wash Shrubland
	North American Warm Desert Wash Woodland
<b>Weedy Fields</b>	Great Basin & Intermountain Introduced Annual and Biennial Forbland
	Great Basin & Intermountain Introduced Annual Grassland
	Great Basin & Intermountain Introduced Perennial Grassland and Forbland
	Great Basin & Intermountain Ruderal Shrubland
	Interior Western North American Temperate Ruderal Grassland
	Interior Western North American Temperate Ruderal Shrubland
	North American Warm Desert Ruderal & Planted Scrub

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**Appendix O: Responses to Public Comments on the  
Northern Corridor – Highway Right-of-Way, Issuance of an  
Incidental Take Permit EIS and Draft RMP Amendments**

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# **Appendix O. Responses to Public Comments on the Northern Corridor – Highway Right-of-Way, Issuance of an Incidental Take Permit EIS and Draft RMP Amendments**

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## **0.1 Introduction**

The Bureau of Land Management (BLM) and U.S. Fish and Wildlife (USFWS) published the Notice of Availability (NOA) of the Draft Environmental Impact Statement (EIS) to Consider a Highway Right-of-Way, Draft Amended Habitat Conservation Plan and Issuance of an Incidental Take Permit for the Mojave Desert Tortoise, and Resource Management Plan Amendments on June 12, 2020. The publication of the NOA began a 90-day public comment period that ended on September 10, 2020.

Comments on the Draft EIS were accepted by the BLM and USFWS via U.S. Postal Service mail, email, and at BLM offices during the 90-day public comment period. In addition, the BLM and USFWS hosted two online public meetings to provide an overview of the project and respond to questions from the public. The online meetings were held July 16 and 21, 2020. Each meeting can be viewed on the [BLM's ePlanning website](#). All comments were given equal consideration, regardless of method of submittal.

The BLM and USFWS are required to assess and consider comments on the Draft EIS both individually and collectively (40 Code of Federal Regulations [CFR] 1503.4(a)). This appendix summarizes the comments received during the 90-day public comment period and how the BLM and USFWS addressed these comments in the development of the Final EIS.

Consistent with 40 CFR 1503.4(b), this appendix focuses on substantive comments on the Draft EIS. A high volume of non-substantive comments was received by the agencies. In general, these non-substantive comments indicate other topics that are of interest to the public in relation to the development of the EIS; therefore, the agencies summarized and responded to many of the non-substantive comments as well as comments that indicate public interest in issues that are beyond the scope of the development of the EIS. The BLM National Environmental Policy Act Handbook defines substantive and non-substantive comments as indicated below.

Substantive comments do one or more of the following:

- Question, with reasonable basis, the accuracy of information in the EIS.
- Question, with reasonable basis, the adequacy of, methodology for, or assumptions used for the environmental analysis.
- Present new information relevant to the analysis.
- Present reasonable alternatives other than those analyzed in the EIS.
- Cause changes or revisions in one or more of the alternatives.

Comments that are not considered substantive include the following:

- Comments in favor of or against the proposed action or alternatives without reasoning that meet the criteria listed above (such as “we disagree with Alternative 2 and believe the BLM should select Alternative 3”).
- Comments that only agree or disagree with BLM policy or resource decisions without justification or supporting data that meet the criteria listed above (such as “more grazing should be permitted”).
- Comments that do not pertain to the project area or the project (such as “the government should eliminate all dams,” when the project is about a grazing permit).
- Comments that take the form of vague, open-ended questions.

In response to substantive comments, in accordance with 40 CFR 1503.4(a), the BLM and USFWS could do the following:

- Modify alternatives, including the proposed action.
- Develop and evaluate alternatives not previously given detailed consideration by the agencies.
- Supplement, improve, or modify their analyses.
- Make factual corrections.
- Explain why the comments do not warrant further agency response, citing appropriate sources or authorities.

## **0.2 Submission Processing and Comment Coding**

The following sections describe the methods used to review and identify comments received during the 90-day comment period.

### **0.2.1 Submission-level Processing**

The BLM and USFWS received 15,466 submissions from the public during the 90-day public comment period. Duplicate submissions from the same sender made through more than one submission method were excluded from this total. Each submission received was entered into a database, assigned a unique submission number, and reviewed individually for substantive comments.

Submissions were categorized based on the content of the submission as either unique, form letter (i.e., submissions that were identified as identical letter submitted by individuals as part of an organized letter writing campaign with no unique text), or form letter plus (i.e., submissions that were identified as part of an organized letter writing campaign that also contained unique text added to, embedded in, or altered from the form letter text).

All comments were given equal consideration, regardless of method of submittal. Of the 15,466 submissions, 985 were unique and 14,481 were part of organized letter writing campaigns (Table 1).

**Table 1. Submittal Summary by Format Type**

<b>Format</b>	<b>Number of Submissions</b>
Unique	985
Form letter	12,880
Form letter plus	1,601
<b>Total</b>	<b>15,466</b>

Each submission was also categorized based on the affiliation of the sender as submitted by individuals, stakeholder groups (e.g., environmental organizations and user group organizations), government agencies (including Federal, State, and local governments), and American Indian Tribes (Table 2).

**Table 2. Submittal Summary by Sender Type**

<b>Format</b>	<b>Number of Submissions</b>
Individuals	15,444
Stakeholder Groups	6
Government Agencies	16
American Indian Tribes	0
<b>Total</b>	<b>15,466</b>

### **0.2.2 Comment-level Coding**

After the 15,466 submissions received during the public comment period were entered into a database and assigned a unique submission number, the content of the submissions was reviewed. Based on this review, individual substantive comments were identified. Each individual substantive comment was assigned a unique comment number based on the submission number and the number of comments identified in the submission. Each unique comment was also assigned a topic-based code according to the issue raised in the comment. For example, if a submission numbered 100 brought up four different issues, the submission text was parsed into four separate comments numbered 100-1, 100-2, 100-3, and 100-4, and each comment was assigned a code based on the topic of the unique comment. Comments relevant to more than one issue were given secondary codes to ensure that they were captured under each issue. Comments were received on topics related to the planning process, public and stakeholder involvement, the Amended HCP, the Plan of Development (POD) submitted by the Utah Department of Transportation (UDOT), and almost every resource or resource use.

### **0.3 Comments and Responses by Resource or Planning Topic**

The following sections list the individual substantive comments received during the 90-day public comment period and the BLM’s and USFWS’s responses to those comments. All comments received have been incorporated into the project record and can be accessed by contacting the BLM Color Country District Office. As described in Sections 0.2.1 and 0.2.2, all individual comments were given a unique submission number-comment number code (e.g., A.47-76 or 1456-1), comprising submission and comment identification numbers.

Many commenters expressed similar or identical concerns. For these often-repeated concerns, summary public concern statements were drafted. Each public concern statement was given a unique code (e.g., AIR-1) and appears in bold in the first rows of each appropriate table. All public concern statements are included in this appendix and have appropriate responses. All individual comments summarized by the public concern statements herein are included in the project record.

**0.3.1 Air Quality**

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.10-1	<p>Both the Red Hills Parkway Expressway Alternative and the St. George Boulevard /100 South One-way Couplet Alternative would force traffic onto Bluff street, which is the main access to Santa Clara. That congestion would be bad for air quality and quality of life in Washington County.</p> <p>The Preferred Alternative, however, would alleviate traffic congestion and improve quality of life for Washington County residents by quickly moving traffic from East to West without idling at stop lights on city surface streets.</p>	<p>Table 12 in Appendix L of the EIS shows that the average annual daily traffic in 2050 along Bluff Street under each alternative is comparable. Increased traffic on other routes would be due to population increases and associated traffic volume increases.</p> <p>Alternative 3, including the UDOT Application Alignment, would reduce traffic congestion and resulting impacts to air quality in the study area.</p>
A.21-24	<p>Although UDOT appreciates that the Air Quality Technical Report included as Appendix I may contain more detailed information on the potential air quality impacts, UDOT believes the following additional discussion or clarifications should be made in the DEIS: Section 3.12 generally states that there are no Federal or State ambient standards for mobile source air toxics (MSATs). DEIS, p. 3-94. While this is true for MSATs as a group, UDOT notes that in addition to being an MSAT, diesel is a contributor to PM10, which is regulated through the National Ambient Air Quality Standards (NAAQS). Transportation plans, programs, and projects are required to demonstrate conformity to the PM10 NAAQS per 40 C.F.R. § 93.102. Thus, evaluation of diesel emissions is required when transportation conformity applies. Additionally, controls on MSAT emissions are addressed through the 2007 Control of Hazardous Air Pollutants from Mobile Sources final rule. The DEIS should be clarified accordingly.</p>	<p>Transportation conformity does not apply because this project would not receive Federal-aid Highway program funds or require FHWA approval. Section 3.12 of the EIS was revised to state that the Environmental Protection Agency (EPA) assessed the mobile source air toxics (MSAT) list in its rule on the Control of Hazardous Air Pollutants from Mobile Sources (<i>Federal Register</i>, Vol. 72, No. 37, page 8430, February 26, 2007).</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.21-25	<p>Although UDOT appreciates that the Air Quality Technical Report included as Appendix I may contain more detailed information on the potential air quality impacts, UDOT believes the following additional discussion or clarifications should be made in the DEIS: In Section 3.12.1.2, the DEIS states that priority MSATs are anticipated to decline by 91% between 2010 and 2050. DEIS, p. 3-95. UDOT recommends the DEIS provide additional background and further clarify and explain the basis for this decline.</p>	<p>A reference was added to the Federal Highway Administration’s (FHWA’s) updated 2016 MSAT guidance and included the following text in Section 3.12 of the EIS: This decline is based on federal emissions standards that are becoming increasingly more stringent over the past decade(s). In addition, according to the National Highway Traffic Safety Administration, because new vehicles are subject to stricter anti-pollution rules, air pollution is expected to be reduced as older vehicles that emit more harmful pollution will be retired and replaced by newer, cleaner vehicles.</p>
A.21-26	<p>Although UDOT appreciates that the Air Quality Technical Report included as Appendix I may contain more detailed information on the potential air quality impacts, UDOT believes the following additional discussion or clarifications should be made in the DEIS: The statement in Section 3.12.2.2 that “... direct impacts under all action alternatives in the 2050 design year are expected to be reduced via lower MSAT emissions in the immediate area of the project relative to the no action alternative” appears to be inconsistent with the information in Table 3.12-1, which shows VMT is lowest in the no action alternative, and the statement in the prior paragraph that “it is expected that overall MSAT emissions would not differ appreciably among the various alternatives.” DEIS, pp. 3-97–98. UDOT recommends deleting or clarifying this sentence.</p>	<p>The following sentence was revised in Section 3.12.2.2 of the EIS: In sum, direct impacts under all action alternatives in the 2050 design year are expected to be reduced via lower MSAT emissions in the immediate area of the project relative to the No Action Alternative as a result of improved operational speeds and less stop-and-go traffic (speeds 0 to 25 miles per hour). Additional text was also added: As shown on Figure 5 of Appendix I, Air Quality Technical Report, as vehicle miles traveled (VMT) continues to increase in the future, MSAT emissions would be lower as result of improved emission factors.</p>
A.21-27	<p>Separately, UDOT notes the attainment status of criteria pollutants shown in Figure 2 of the Air Quality Technical Report is not accurate and does not comprehensively represent the State’s non-attainment and maintenance areas. DEIS, App’x I, p. 5. Areas shown as being in maintenance for ozone are accurately classified as marginal. Additionally, PM<sub>10</sub> and carbon monoxide maintenance and non-attainment areas are not shown. While this does not appear to change the air quality impacts analysis, this information should be reviewed and updated to accurately reflect the State’s non-attainment and maintenance areas.</p>	<p>Figure 2 of the Air Quality Technical Report (Appendix I of the EIS) has been revised with updated non-attainment/maintenance areas. These updates included replacing “ozone maintenance zone” with “ozone non-attainment marginal zone” and replacing “PM<sub>10</sub> nonattainment zone” with “PM<sub>10</sub> maintenance zone”.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.21-28	<p>Section 3.3 of the Air Quality Technical Report states that “Transportation conformity applies to transportation projects and takes place on two levels: the regional—or planning and programming—level, and the project level.” DEIS, App’x I, p. 6. UDOT notes that project-level conformity applies when a highway project is proposed to receive funding assistance through the Federal-Aid Highway Program or requires a Federal Highway Administration approval. Accordingly, project-level conformity does not apply when these conditions are not met. 40 C.F.R. § 93.102. BLM should clarify the DEIS to state that project-level conformity would not apply to UDOT’s Proposed Action unless the applicant received federal funding for the project or was required to obtain a Federal Highway Administration approval. At this time, neither of these circumstances are applicable and, therefore, this requirement would not apply to the selected alternative.</p>	<p>The air quality analysis states transportation conformity does not apply because the project would not receive Federal-aid Highway program funds or require FHWA approval. Additional language has been added to clarify that conformity only applies to Federally funded projects or projects requiring Federal approval within non-attainment or maintenance areas.</p>
A.21-29	<p>Section 4.1 of the Air Quality Technical Report discusses changes to fuel economy standards as implemented through the final Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks. DEIS, App’x I, p. 9. The report, however, does not make clear the relationship between the implementation of the SAFE rule and the MSAT analysis as discussed in the DEIS. UDOT requests that the agencies clarify the background and purpose of providing this additional information. Additionally, UDOT notes that criteria pollutant and MSAT standards are the main drivers of predicted reductions in MSAT emission rates, not fuel economy standards. The report and any corresponding provisions in the DEIS should be clarified accordingly.</p>	<p>The Safer Affordable Fuel-Efficient (SAFE) Vehicles rule was mentioned because the trends provided in the FHWA guidance are based on MOVES modeling that accounts for VMT, speeds, vehicle mix, fuels, emission control programs, and other factors. Therefore, these fuel economy standards could affect these trends.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.20-3	<p>ES; ES-11; Table ES 5-1; Alt 6 Air Quality. Comment: The statement that “the corridor and intersections would operate more efficiently resulting in less air emissions” is incorrect.</p> <p>The one-way couplet would have much slower speeds than other alternatives as traffic would be slowing and stopping for signals, slowing and or stopping for parked vehicles and vehicles entering and exiting businesses, increased traffic due to circulating vehicles, increased and slower speed traffic on Tabernacle Street as well as all North/South streets etc. These factors would all lead to more emissions and decreased air quality.</p>	<p>The one-way couplet would have slower speeds compared to the other Northern Corridor alignments. However, compared to the No Action Alternative, congestion and resulting air emissions would improve. Traffic patterns and volumes on Tabernacle Street and all the local north-south streets in downtown St. George would be expected to increase with the one-way couplet because more traffic would be required to use these streets to change directions and circulate between the two one-way streets to get to their destinations. The intersections that would operate more efficiently are the ones along the one-way streets, not necessarily the other streets in the system. Operations along the one-way streets would be very similar to how they operate now as two-way streets because the alternative does not change the number of signals, business accesses, etc.</p>
A.20-10	<p>3; 3-98; Table 3.12-2. Comment: The endpoints for estimated travel times should be Snow Canyon Parkway to I-15 North of Exit 13. This appears to be supported by the “heat maps” provided in the Horrocks N.C. traffic Analysis Memo.</p> <p>The purpose and need for a northern corridor is to facilitate east-west traffic between SR-18 at Snow Canyon Parkway and I-15.</p>	<p>The travel time analysis is based on Sunset Boulevard as the end-point. Changing the end-point to Snow Canyon Parkway would change the individual travel times for each route, but would not change the overall relative differences between the routes. The purpose of the travel time analysis is to show the difference each alternative has on the travel times for each route and to compare and contrast the alternatives.</p>
A.41-1	<p>The EPA reviewed and compared the ambient air quality monitoring data in EPA’s Air Quality System (AQS), (<a href="https://www.epa.gov/aqs">https://www.epa.gov/aqs</a>) against the ambient air quality data presented in Table 3 of the Jacobs’ Air Quality Technical Report (AQTR, page 10) and found differences between this table and AQS data for years 2017, 2018, and 2019. We recommend that the BLM consult our AQS system and update data used from the AQTR in the Final EIS Air Quality section, as appropriate.</p>	<p>The monitoring value reports from the EPA’s Air Quality System (<a href="https://www.epa.gov/outdoor-air-quality-data/monitor-values-report">https://www.epa.gov/outdoor-air-quality-data/monitor-values-report</a>) were reviewed and updated in Table 3 of the Air Quality Technical Report (Appendix I of the EIS).</p>

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A.41-2	<p>The EPA recommends the Final EIS provide further analysis regarding impacts to Class 1 areas (Zion National Park). Particulate matter (PM-10 and PM-2.5) and fugitive dust emissions would likely occur during construction and by vehicle emissions with the operation of the proposed UDOT highway. The Draft EIS (Section 3.12.2.2) states that, “emissions from the action alternatives are not likely to significantly affect these [emission] inventories because Zion National Park is located approximately 20 miles away and sits at a much higher elevation compared to the proposed Northern Corridor alternatives.” It is unclear from the technical analysis provided in the DEIS whether Class I impacts truly are “not likely to be significantly affected”. This statement lacks supporting data, so we suggest further analysis be added to this section such as a discussion on the impediments to the transport of construction and operation emissions like topographic barriers or an analysis of prevailing wind direction moving emissions away from the Park. It will be important for the subsequent, site-specific highway NEPA analysis to assess the impacts of constructing and operating the highway since those impacts are not covered by this EIS.</p>	<p>Text was added to discuss the prevailing winds and topography within the St. George and Washington area. Section 3.12.2.2 of the EIS has been updated to include:</p> <p>The St. George Municipal Airport weather station has been collecting meteorological data since 1980 (MRCC 2020). Figure 7 of the Air Quality Technical Report (Appendix I of the EIS) shows the wind patterns in the region observed over the past year as a wind rose. Each petal of the wind rose represents a direction the wind is blowing from, with the colors of each petal corresponding to a wind speed. The winds generally blow from the west/southwest and east/southeast, depending on the season, with an annual average windspeed of 6.9 meters per second, or 15 miles per hour. Depending on the season, the prevailing wind direction would be towards Zion National Park. However, any generated local air emissions from the proposed action alternatives are not anticipated to affect the air quality within Zion National Park. These air emissions are anticipated to dissipate over several land uses and be indistinguishable from emissions from other regional sources before reaching the park, located approximately 20 miles away. In addition, the topography between the proposed action alternatives and the park generally increases toward the east. There is a high ridge surrounding the west side of the park that would block some of the local air emissions or increase travel distance.</p>

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A.25-7	<p>Table ES.5-1: The table shows that traffic would move at higher speeds with Alternative 3 compared to Alternatives 5 and 6 resulting in less congestion which might result in better air quality: Compared to Alternatives 5 and 6 traffic would operate at higher speeds (less stop and go traffic) resulting in less congestion and delay and improved air quality conditions</p> <p>But there seems to be a conflict in the table because under Alternative 3 (preferred) it says impacts are similar to Alternative 2 which reads:</p> <p>Similar to Alternative 2 and 3, traffic would operate at higher speeds (less stop and go traffic) along the expressway alignment with no signalized intersections, resulting in less congestion and delay. Air quality would improve, including potential reductions in MSAT and GHG emissions.</p> <p>So which is it? Does Alternative 3 result in better or the same air quality conditions. The table does not make it clear.</p>	Text has been revised in Table ES.5-1 in the EIS to further clarify how the alternatives compare.
A.25-47	Alternative 5 would not have a “new or modified interchange with an existing roadway” in Red Cliffs, so would not move traffic closer to nearby homes, parks, schools, and businesses with MSAT concentration increases. EPA’s future vehicle and fuel regulations could be changed as we have seen in the past, so to assume that those would reduce the MSAT concentrations seems speculative.	Text was added to the EIS that the alternatives “include or connect to” new or modified interchanges. Future vehicle and fuel regulations could change, but these trends are based on the most current information provided in the MSAT guidance.

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H.65-302	<p>Climate-related impacts are addressed in the DEIS in several places. This section integrates those inter-related impacts and addresses their cumulative effects.</p> <p>Issue</p> <p>1. The DEIS fails to take a hard look at the impacts of climate change and consider recent climate science regarding the proposed alternatives and is therefore arbitrary and capricious.</p>	<p>Text was added to Section 3.28 of the EIS: “In addition to the actions identified in Table 3.28-2, the environmental effects of GHG [greenhouse gas] emissions are by their nature cumulative and global. No individual source of GHG emissions is large enough to result in a measurable effect on global GHG concentrations of climate change. In addition, existing climate prediction models are global and not appropriate to estimate potential impacts of climate change in small areas. However, project-related GHG emissions and climate change are described in Section 3.12, Air Quality; Appendix I, Air Quality Technical Report (specifically Figures 9 and 10); Section 3.5, Special Status Wildlife; and Section 3.3, Special Status Plants in combination with GHG emissions and climate change from past, present, and reasonably foreseeable future actions discussed in this section.”</p> <p>Figures 9 and 10 in Appendix I, Air Quality Technical Report, show potential global GHG concentration (emissions) scenarios and the resulting impact to global average temperature and GHG concentrations. Future GHG emissions are driven by population growth and vehicle and fuel standards. GHG emission assessments are based on comparing the difference in VMT between alternatives. In this case, these differences are too small to result in a measurable difference, based on the annual and cumulative CO2 emissions shown on Figures 8 and 9.</p> <p>Construction is a one-time event and any generated emissions would be temporary. Therefore, construction emissions are generally <i>de minimus</i>. Final roadway design, including construction details such as detours, staging areas, limits, and similar would be determined by the applicant during the final design phase of the Northern Corridor highway if an action alternative is selected after the conclusion of the National Environmental Policy Act (NEPA) process.</p>

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H.65-303	<p>The 2016 Red Cliffs NCA ROD and Approved RMP acknowledges that management for fish and wildlife habitat must occur in the context of predicted changes in climate, stating (emphasis added in italics): The Approved RMP will manage fish and wildlife habitat to provide high quality forage or a high-quality prey base, as well as water, space, cover, and breeding areas, thereby sustaining viable populations and overall ecosystem biodiversity and resilience. Multi-species habitat connectivity, migration routes, and movement corridors are conserved and protected between ecological Zones to facilitate species persistence, adaptation, and overall biodiversity under predicted climate change scenarios.</p> <p>BLM and USFWS have an obligation to use the best available science in assessing the climate impacts that will result from its decisions and that must inform current and future management. To fulfill the goals of NEPA, federal agencies are required to analyze the "effects," or impacts, of their actions to the human environment prior to undertaking their actions, holding that NEPA imposes action forcing procedures. requir[ing] that agencies take a hard look at environmental consequences". To this end, an agency must analyze the "direct," "indirect," and "cumulative" effects of its actions, and assess their significance. Direct effects include all impacts that are "caused by the action and occur at the same time and place." Indirect effects are "caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. "Cumulative effects include the impacts of all past, present, and reasonably foreseeable actions, regardless of what entity or entities undertake the actions.</p>	Refer to response to H.65-302.

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H.65-304	<p>Despite the obligation to use best available science and take a hard look at project impacts, the analysis of climate change in the DEIS is woefully inadequate, consisting of the paragraphs cited above and few isolated mentions of climate change. Specifically, the DEIS fails to analyze how each of the ROW alternatives would interact with climate change, including creating multiplier effects on existing stressors such as invasive species and fire, and what the direct, indirect and cumulative impacts would be. Failure to conduct this analysis is arbitrary and capricious under the requirements of NEPA and a fatal flaw of the DEIS.</p> <p>The DEIS points out that NCA Reserve is already experiencing environmental stress and degradation from establishment of invasive plants, which in turn creates a feedback loop for increased wildfires and loss of native plants in the Reserve.</p>	<p>Refer to response to H.65-302.</p>
H.65-309	<p>The DEIS fails to recognize the critical importance that land use planning and this proposal in particular plays in greenhouse gas (GHG) emissions from the proposed project and how it exacerbates GHG emissions. Although GHG emissions from the proposed project may seem insignificant, climate change is a problem with cumulative impacts and effects. One source or one project may not appear to have a significant effect on climate change, but the combined impacts of many sources can drastically damage Utah's climate as a whole. Therefore, project-specific GHG emission disclosure, analysis and mitigation is vital to meeting climate goals and maintaining our climate.</p> <p>The DEIS appears to only have reported GHG emissions from increased daily vehicle miles traveled, but not GHG emissions resulting from the total projected planned development. As such the DEIS failed to analyze the indirect and cumulative impacts of growth on GHG emissions.</p>	<p>Refer to response to H.65-302. The following text has been added to Section 3.28.1.11 of the EIS: “Carbon sequestration is the process of capturing and storing atmospheric carbon dioxide with the goal of reducing global climate change. Land use change from the proposed action could reduce the amount of carbon that can be sequestered from affected land. The northern corridor alignments would disturb more land as compared to the other alternatives that propose improvements to existing roadways. However, there would be little to no change in the number of land acres disturbed as compared to each of the northern corridor alignments. In addition, any potential changes at the project level are not likely to solely affect the regional emissions of CO<sub>2</sub>. Emissions from the land primarily occur from wildlife fires or decomposition of organic matter, neither of which would happen with construction of a roadway.” Also, GHG emissions from vehicles using roads are a function of distance traveled (expressed as VMT), vehicle speed, and road grade, which is sufficient for assessing potential impacts.</p>

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H.65-310	<p>Further, the BLM and USFWS failed to conduct a GHG emissions analysis for both the construction and operation of the Northern Corridor. Instead the DEIS states, "There are no Federal or State ambient concentrations or emissions standards for greenhouse gas (GHG)." DEIS at 3-94.</p> <p>The DEIS projects increased daily vehicle miles traveled but does not include an analysis of GHG emissions from those increased vehicles. Rather, they sweep projected increases in vehicle emissions under the rug but claim that the increase in daily VMTs will be offset by future vehicle energy efficiency stating "that is more than sufficient to offset the increase in VMT." Yet, the DEIS provides no quantitative analysis to back up this point.</p>	<p>Text was added to Section 3.12 of the EIS that the minor increase in VMT would result in a negligible increase in GHG emissions. Refer also to response to H.65-309.</p>
H.65-311	<p>Regarding the DEIS claim that the climate change effects of the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021 -2026 Passenger Cars and Light Trucks are only "extremely small," that claim is not true. The 2012 standards would have cut emissions and improved gas mileage roughly 5 percent a year from 2021 to 2025. The Trump Administration's SAFE Rule would slash required fuel-efficiency improvements to just 1.5 percent a year beginning in 2021. Even that significantly reduced standard won't be achieved because of various credits automakers can receive for making vehicles that run on gasoline or employ more efficient air-conditioning refrigerant, even if emissions aren't reduced. In fact, according to Consumer Reports, the new vehicle fleet would average 31.8 real world miles per gallon, compared with 37.5 miles per gallon under the Trump Administration rule. To put a finer point on it, under the Trump rule, vehicles will burn 142 billion additional gallons of gasoline and emit as much as 1.5 billion more tons of pollutants. That's the equivalent of the pollution from 68 coal fired power plants operating for five years and under any scenario, a significant difference, and by no measure "extremely small."</p>	<p>This language was provided from the SAFE rule FAQs from National Highway Traffic Safety Administration (State of Utah 2019). Also refer to: <a href="https://www.nhtsa.gov/corporate-average-fuel-economy/faq-safe-vehicles-rule">https://www.nhtsa.gov/corporate-average-fuel-economy/faq-safe-vehicles-rule</a></p>

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Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-312	<p>The DEIS failed to compare and contrast the effects of the Northern Corridor alternative with the potential GHG emissions effects of all other alternatives, including the package of possible transportation alternatives that have been conveyed to the DMPO by CSU (a full discussion of those alternatives can be found in the Community Alternatives section of these scoping comments). The analysis must include cumulative impacts for each resource area and include the carbon sequestration provided by intact arid lands ecosystems, and the loss of carbon sequestration ability, that will be impacted by the proposed alternatives.</p> <p>The GHG emissions must be disclosed to the public and decision-makers, so the implications of the proposed alternatives to affect our climate are clear. The DEIS failed to identify the alternatives with the greatest reductions to GHG emissions.</p>	Refer to responses to H.65-302 and H.65-309.
H.65-313	<p>Lastly, the DEIS failed to put climate change and the projected GHG emissions of the increase in vehicle miles and total GHG emissions from the related growth scenarios into the relevant context of required science-based steps needed to avoid the worst impacts of climate change. Specifically, the 2018 International Panel on Climate Change (IPCC) "Special Report on Global Warming of 1.5 °C made clear that global emissions must be cut by half by 203 to limit warming to 1.5 °C. The United Nations' November 2019 "Emissions Gap" report reiterated the need for urgent action citing that countries must cut emissions by at least 7.5% per year over the next decade for a total emissions reduction of 55% between 2020 and 2030. The DEIS failed to provide the total GHG emissions in the context of necessary reductions by the crucial interim timeframe of 2030 and 2050 goal of achieving net zero emissions. Rather, the DEIS attempts to explain away any increase in emissions by speculative promises of other future reductions. As such the DEIS is fatally flawed and arbitrary and capricious.</p>	<p>Refer to Section 6.5.1 (Appendix I, Air Quality Technical Report) for a comparison of projections to these emission reduction goals.</p> <p>Assessing the emissions reductions is outside the scope of this project. BLM is required to follow the laws and regulations that are currently enacted regarding GHG emissions. The United States has not yet adopted a GHG reduction strategy.</p>
H.65-511	<p>1. Impacts to air quality: The DEIS must address NCH impacts related to construction, vehicle travel, and long-term air quality. Addressed in the DEIS: Partial</p>	Refer to responses to H.65-302 and H.65-310.

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Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-512	<p>The DEIS must provide a good faith analysis of the Project's impacts to Air Quality, analyzing the project in relation to the current regional, state, and federal standards. The DEIS must also be prepared with a sufficient level of analysis to provide decision-makers with the information needed to make an intelligent decision concerning a project's environmental consequences. Addressed in the DEIS: Partial</p>	<p>Refer to responses to H.65-302 and H.65-309.</p>
H.65-513	<p>3. Consider Recent Climate Science Addressed in the DEIS: Partial. 4. Fully Quantify Direct, Indirect, and Cumulative Greenhouse Gas Emissions Addressed in the DEIS: No. 5. Assess the Significance of Greenhouse Gas Emissions 7. Consider Analyzing the Costs of Reasonably Foreseeable Carbon Emissions Addressed in the DEIS: No. Addressed in the DEIS: No.</p>	<p>Refer to responses to H.65-302 and H.65-309.</p>
H.65-514	<p>6. Consider Carbon Budgeting as a Tool for Assessing Significance. Addressed in the DEIS: Partial. The DEIS did note how much is left in the global carbon budget. For example, carbon budgeting is a valuable tool for assessing the significance of GHG emissions in the current context. BLM and USFWS are required to determine whether this tool would contribute to informed decision-making. The science of carbon budgeting has greatly improved in the last few years, and recent reports demonstrate the evident usefulness of carbon budgeting in assessing the significance of future emissions. For example, the October 2018 IPCC Global Warming of 1.5 °C special report provided a revised carbon budget for a 66 percent probability of limiting warming to 1.5 °C, estimated at 420 GtCO<sub>2</sub> and 570 GtCO<sub>2</sub> depending on the global emissions rate of 36 GtCO<sub>2</sub> per year noted above for 2012-2014, the IPCC temperature dataset used, from January 2018.</p>	<p>Refer to responses to H.65-302 and H.65-309. In addition, carbon budgeting tools are based on a global value that estimates cumulative emissions and can vary based on numerous assumptions and factors. No individual source of GHG emissions is large enough to result in a measurable effect on global GHG concentrations of climate change. Therefore, carbon budgeting would not contribute to the decision-making. In addition, the IPCC also states there is substantial uncertainty in the size of the budgets.</p>

**0.3.2 Alternatives**

<b>Letter #- Comment # or Public Concern Statement #</b>	<b>Comment</b>	<b>Response</b>
<b>ALTS-01</b>	<p>The Red Hills Parkway to I-15 Fly-Over is a viable, less costly alternative with fewer environmental impacts that should have been evaluated by the BLM in detail in the EIS.</p> <p>Variations of the Red Hills Parkway to I-15 Fly-Over suggested in public comments included:</p> <ul style="list-style-type: none"> <li>• Construct an exit to Red Hills Parkway at milepost (MP) 9 on I-15</li> <li>• Construct a new exit to Red Hills Parkway between existing exits 8 and 10 on I-15</li> <li>• Construct a new exit above Industrial Road to Red Hills Parkway</li> <li>• Construct a new exit to Red Hills Parkway at Mall Drive</li> </ul>	<p>As stated in Section 2.7.1.5 of the EIS, the Red Hills Fly-Over is included in the BLM’s consideration of Northern Corridor Alternative 5 (the Red Hills Parkway Expressway). Pursuant to the BLM NEPA Handbook (Handbook H-1790-1), the BLM may eliminate an action alternative from detailed analysis if it is not substantively different in design from an alternative being analyzed in detail. To meet the applicant’s objectives of reducing congestion, increasing capacity, and improving east-west mobility, additional improvements to Red Hills Parkway are required, in addition to the fly-over. These improvements are included in the Red Hills Parkway Expressway Alternative, which was carried forward for detailed analysis in the EIS, and the Widen Red Hills Parkway to 6 Lanes Alternative, which was not carried forward for detailed analysis (refer to Section 2.7.1.6 of the EIS). Therefore, the Red Hills Fly-Over is not a reasonable standalone alternative to the proposed action and was not carried forward for detailed analysis.</p>
<b>ALTS-02</b>	<p>Conserve Southwest Utah’s Community Transportation Alternatives should have been carried forward for detailed analysis in the EIS, including integrated land use and transportation planning and consideration of traffic management technology.</p>	<p>As discussed in Section 2.7.1.5 of the EIS, several of the alternatives suggested as part of the Conserve Southwest Utah’s Community Transportation Alternative are similar to other alternatives that have been considered during development of the EIS. Alternative 1 (Red Hills Parkway – I-15 Viaduct/Fly-Over Connection), Alternative 2 (Improvements to Red Hills Parkway between I-15 Exits 8 and 13), and Alternative 7 (Downtown St. George Loop) of the Community Transportation Alternative suggested roadway projects that were considered as standalone Northern Corridor alternatives, including the Red Hills Parkway Expressway, Widen Red Hills Parkway Alternative, and the St. George Boulevard/100 South One-Way Couplet Alternative.</p> <p>Alternative 5 (Implement/Plan for Technological Improvements), Alternative 6 (Implement Congestion Reduction Land Use Principles), and Alternative 10</p>

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		<p>(Industrial Park Reuse) of the Community Transportation Alternative are not in the decision space of this planning process because land use planning is under the decision authority of the local municipalities within Washington County.</p> <p>However, the BLM is integrating land use and transportation planning in this EIS, because the agency is considering both Resource Management Plan (RMP) amendments on BLM-administered lands, as well as issuing a potential right-of-way (ROW) for the Northern Corridor. Furthermore, local governments who manage land use policies on private lands in Washington County are participating in the NEPA process as cooperating agencies. Although an alternative that is outside of the lead agency's jurisdiction must be analyzed if it is considered reasonable, in addition to the fact that land use planning and traffic management is beyond the BLM's jurisdiction, it is remote or speculative that these land use plans would be implemented because they are inconsistent with the managing objectives of the local municipalities over land use planning. Therefore, Alternatives 5, 6, and 10 of the Community Transportation Alternative are not reasonable alternatives that the BLM should have considered in a detailed analysis in this EIS.</p> <p>Alternative 3 (More Porous I-15 to Move Traffic North-South around Congestion Areas), Alternative 8 (Address Moving People Rather than Vehicles), and Alternative 9 (Long-term Thru-Traffic St. George Bypass) of the Community Transportation Alternative would not considerably improve east-west travel demand in the urbanized area of St. George compared to other alternatives analyzed in the EIS and would be substantially similar to the No Action Alternative.</p> <p>The BLM may eliminate an action alternative from detailed analysis if one or more of the following is true:</p> <ul style="list-style-type: none"> <li>• It does not respond to the purpose and need.</li> <li>• It is not technically or economically feasible.</li> </ul>

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		<ul style="list-style-type: none"> <li>• It is not consistent with the overall policy objectives for the area.</li> <li>• Its implementation is remote or speculative.</li> <li>• It is not substantively different in design from an alternative being analyzed in detail.</li> <li>• It would have substantively similar effects from an alternative being analyzed in detail.</li> </ul> <p>Accordingly, the Community Transportation Alternative is not a reasonable alternative to the proposed action and was therefore eliminated from detailed analysis in the EIS.</p>
ALTS-03	<p>Alternatives 5 and 6 are more effective than Alternative 3 at reducing traffic congestion and protecting the Red Cliffs NCA. The variations of Alternatives 5 and 6 analyzed in the EIS had disproportionately high costs and impacts to businesses. These alternatives could and should have been modified to minimize the potential impacts in the alternative analysis.</p>	<p>Alternative preferences are noted by the BLM. Cost is not a factor that was considered in the alternatives analysis (refer to response to ALTS-04). As stated in Sections 2.1 and 2.2 of the EIS, the ultimate alignments of Alternatives 5 and 6 were developed through collaborative discussions with traffic engineers, environmental resource leads, agency stakeholders, and the public. The project team used all scoping comments regarding alternatives to evaluate and refine the range of alternatives. The project team sought input from cooperating agencies during the alternative development and screening process and provided updates to these agencies based on additional refinement of the conceptual alternatives. The alternative development process was consistent with NEPA Sections 102(2)(A) and 102(2)(E) and the CEQ implementing regulations at 40 Code of Federal Regulations (CFR) 1507.2.</p>

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ALTS-04	The EIS failed to consider the cost of the Northern Corridor in its analysis of the alternatives.	<p>As stated in Table 1.5-2 in the EIS, a cost-benefit analysis was not performed because a cost-benefit analysis is not necessary to make a reasoned choice between alternatives. As described in 40 CFR § 1502.23, under NEPA, the weighing of the merits and drawbacks of the various alternatives in an EIS need not be displayed in a monetary cost-benefit analysis and agencies should not do so when there are important qualitative considerations, as is the case with many of the affected resources described in Chapter 3 of the EIS. Furthermore, cost-benefit analyses are not required by either the BLM or USFWS’s NEPA requirements or other applicable laws, regulations, or agency policies.</p> <p>However, in the interest of transparency in response to public requests, preliminary construction cost estimates were provided by the Utah Department of Transportation (UDOT) and added to the description of each action alternative in Section 2.2 of the Final EIS. The BLM and USFWS did not develop the cost estimates and the construction costs associated with each of the alternatives are not considered as part of the agencies' evaluation of the alternatives.</p> <p>Furthermore, as cost is not a factor considered in the selection of the preferred alternative, the decision makers will rely on the interdisciplinary analysis contained in the EIS that thoroughly considers the potential qualitative and quantitative impacts on all of the resources and resource uses that would be affected by the alternatives. The cost estimates provided by UDOT are disclosed as part of the description of the alternatives in Chapter 2, but are not further discussed in the comparison of the alternatives in Chapter 3. The BLM and USFWS decision makers will consider the full spectrum of impacts to resources as described in Chapter 3 of the EIS when making the final agency decisions for the proposed actions.</p>

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ALTS-05	The EIS did not analyze and address the potential for increased traffic on Snow Canyon Parkway. Snow Canyon Parkway should be widened to accommodate the increased traffic.	As stated in Section 1.2.1 of the EIS, UDOT submitted a ROW application to the BLM for construction, operation, and maintenance of a new highway to reduce congestion, increase capacity, and improve east-west mobility on roadways between SR 18 and I-15 at MP 13. The applicant's objective for the Northern Corridor is to improve east-west traffic conditions within the St. George urbanized area between SR 18 and I-15. Any increased traffic that may occur on Snow Canyon Parkway would occur independent of construction of the Northern Corridor project. Therefore, this issue does not inform a comparison and evaluation of the alternatives. Accordingly, traffic conditions outside of the project area on Snow Canyon Parkway are beyond the scope of this EIS. The regional travel demand analysis did factor in the projected future traffic volumes on Snow Canyon Parkway, as well as all other corridors throughout the St. George urbanized area, because all these corridors work together to address transportation operations and needs.
ALTS-06	Instead of constructing a new roadway, investment should be made to expand bicycle paths and walking trails.	As discussed in Section 2.7.1.3 of the EIS, increased use of active transportation (e.g., pedestrian and bicycle facilities) was an alternative considered but dismissed from detailed analysis. Non-motorized travel in St. George represents a miniscule amount of all travel and is insignificant to serving the area's transportation needs. This alternative would not meet future east-west travel demand, nor reduce future intersection congestion within the St. George urbanized area, and it would be substantially similar to the No Action Alternative. The BLM may eliminate an action alternative from detailed analysis if it has substantially similar effects to an alternative being analyzed. Because the No Action Alternative was analyzed and has similar effects to the Active Transportation Alternative, the Active Transportation Alternative was not carried forward for detailed analysis.

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<b>ALTS-07</b>	Instead of constructing a new roadway, investment should be made to expand public transportation options.	<p>As discussed in Section 2.7.1.2 of the EIS, increased use of mass transit was an alternative considered but not carried forward for detailed analysis. Transit usage in the urbanized area of St. George is limited and accounts for less than 1 percent of all trips. Based on local planning and available funding, it is unreasonable to assume the St. George urbanized area could develop a robust transit system within the planning horizon represented by the EIS that would eliminate a substantial amount of vehicle trips from the transportation system. Therefore, this alternative would be substantially similar to the No Action Alternative.</p> <p>The BLM may eliminate an action alternative from detailed analysis if it has substantially similar effects to an alternative being analyzed. Because the No Action Alternative was analyzed in detail, the Mass Transit Alternative was not carried forward for detailed analysis.</p>
<b>ALTS-08</b>	An alignment that avoids residential areas and travels toward Pine Mountain should have been evaluated by the BLM in detail in the EIS.	<p>As described in Section 2.7.1 of the EIS, the BLM considered an alternative north of the Cottonwood Wilderness Area similar to the suggestion provided by this comment. As described in the EIS, the “Northern Alignment” was eliminated from detailed analysis because it would result in the same traffic conditions as the No Action Alternative, showing no improvement to future congestion or east-west connectivity in the St. George urbanized area. The implementation of this alternative is remote or speculative because of the increased length of the potential roadway and the associated increased cost, which may make it economically infeasible to construct because it does not result in reduced congestion. Therefore, the Northern Alignment is not considered a reasonable alternative to the proposed action and was not carried forward for detailed analysis.</p>

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<b>ALTS-09</b>	<p>Alternative 5 merges ideas presented in scoping comments, but its design is conceptual in nature, detailed to the point required for the Draft EIS analysis, but not to the point of enhancing business and customer benefit or minimizing cost. Additional details should be explored in the preliminary and detailed design phase(s):</p> <ol style="list-style-type: none"> <li>1. Streamlined access to 1000 East for businesses to the north of Red Hills Parkway; for example, by connecting Water Works Drive from the west and 350 North from the east to 1000 East, north of St George Energy and Street Department property. Access for businesses south of Red Hills Parkway is already accomplished by Highland Drive.</li> <li>2. Consider boring rather than bridging technologies for the grade-separated intersections.</li> <li>3. Consider tightening the ramps for 1000 East to reduce impacts to private properties.</li> <li>4. There are detailed options to be considered for Pioneer Park and the Desert Garden.</li> </ol>	<p>Alternative and design preferences are noted by the BLM. The design at this time has been developed in conjunction with a draft Plan of Development (POD) to inform the environmental analyses, assist the BLM in its decision-making, and support the comparison and evaluation of impacts of the alternatives. Final roadway design would be determined by the applicant during the final design phase of the Northern Corridor highway if an action alternative is selected after the conclusion of the NEPA process.</p> <p>Pioneer Park is managed by the City of St. George. Red Hills Desert Garden is collaboratively managed by the Washington County Water Conservancy District, the City of St. George, and the Virgin River Program. Any changes to Pioneer Park and/or the Red Hills Desert Garden are outside of the BLM’s jurisdiction and beyond the scope of this EIS and the Northern Corridor project.</p>
<b>ALTS-10</b>	<p>If Alternative 6 is selected, do not remove center medians on St. George Boulevard. In addition, downtown St. George should be developed into a business, shopping, and tourist district.</p>	<p>Refer to response to ALTS-09. The specific design and management of 100 South and commercial development of downtown St. George are managed by the City of St. George. The design and management of St. George Boulevard is managed by UDOT. The medians would have to be removed to make Alternative 6 feasible from an operational and safety standpoint and to meet applicable design criteria. Future commercial development in downtown St. George is outside of the scope of analysis of this EIS.</p>

Appendix O Responses to Public Comments on the Northern Corridor – Highway Right-of-Way, Issuance of an Incidental Take Permit Final EIS and Draft RMP Amendments

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17-1	<p>I want to say I am opposed to the northern Corridor that is to start in Green Springs Area on Washington Parkway and continued over to Red Hills Parkway another alternative would be come off the old dump road as there are few homes there, etc. and will still relieve traffic.</p>	<p>Section 2.7.1.9 of the EIS has been revised to address and consider the proposal of an Old Dump Road connection, as follows: During the EIS public comment period, a comment was received that suggested an alignment that would start at the Old Dump Road (Turkey Farm Road and Cottonwood Springs Road) instead of at Green Spring Drive and would extend to the west and connect to Red Hills Parkway. The Old Dump Road Connection would not improve east-west travel demand in the St. George urbanized area when compared to other alternatives analyzed in the Final EIS and would be substantially similar to the No Action Alternative. Therefore, the Old Dump Road Connection is not a reasonable alternative to the proposed action and was not carried forward for detailed analysis.</p>
A.05-26	<p>Chapter 2.3, p 2-7  EIS Text: An amendment to the Red Cliffs NCA RMP would be necessary for any of the Northern Corridor action alternatives that would cross areas identified as avoidance areas for new ROWs in the 2016 Red Cliffs NCA RMP (BLM 2016).  Comment: The Amended HCP carries forward language from the 1995 HCP that describes the intent of the HCP Partners to provide consideration for the allowed uses of the Reserve (i.e., those activities analogous to the Covered Activities within the Reserve when performed on federal land), subject to appropriate review and conservation measures. The Red Cliffs NCA contains language that is contrary to this intent. The Draft EIS should be revised to acknowledge that amendment to the Red Cliffs NCA RMP is warranted to maintain consistency with the Amended HCP. Specifically, the Red Cliffs NCA RMP alternatives should include modifying LAR-13(e) to remove language that currently prohibits the grant of new ROWs when take of listed species would occur and replace it with language that provides consideration for the allowed uses of the Reserve. The Draft EIS considers, but dismisses, an alternative that would evaluate consideration of broader modifications to LAR-13 (see Chapter 2.7.2.2). This dismissed alternative should be reconsidered in light of the intent for consistency between the Amended HCP and the Red Cliffs NCA RMP.</p>	<p>Refer to response to comment A.05-8. As described in Section 2.7.2 of the EIS, a broader amendment to the Red Cliffs National Conservation Area (NCA) RMP was not carried forward for analysis because it would not be consistent with the BLM’s purpose for the amendment, which focuses on management actions related to responding to the ROW application for the Northern Corridor in the Red Cliffs NCA.  The BLM remains committed to working with Washington County to support the implementation of the Amended Habitat Conservation Plan (HCP). As described in Section 6.33 of the Red Cliffs NCA RMP, the “BLM will work collaboratively with local, state, and federal partners to accomplish the goals and the objectives of the Washington County HCP and its implementation agreement.”</p>

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A.05-41	<p>Table 2.5-1, p 2-23                      EIS Text: SGFO RMP Amendment Alternative B                      Comment: The County requests that BLM consider removing the overly restrictive language from Alternative C. For example: Fire and Fuels Management-Consider removing or providing flexibility for BLM Field Manager approval prior to certain fire suppression tactics that could be critical to prevent environmental damage in an emergency. FW 21- Predator control should be done in accordance with the necessary permits for such activities as held by APHIS or UDWR and not require additional burdens, such as NEPA analysis, that will make responsible predator control unachievable.</p>	<p>The BLM is considering a range of alternatives, including a No Action Alternative, which does not include the language requested to be removed. The BLM can select any of the alternatives considered in this EIS. Additionally, a range of fire suppression tactics are provided for under St. George Field Office (SGFO) Amendment Alternatives B and C.</p>
A.05-42	<p>Chapter 2.7, p 2-29                      EIS Text: The USFWS may consider more alternatives as might be identified by public comments or may use additional alternatives to evaluate unresolved conflicts concerning project impacts, mitigation plans, or alternative uses of available resources.                      Comment: This statement appears misplaced and unrelated to the intended content of the subchapter, as it does not explain what criteria the USFWS used to justify eliminating alternatives from detailed analysis. The Draft EIS should strike this sentence.</p>	<p>This sentence has been deleted as suggested.</p>

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A.05-8	<p>The Draft EIS does not contemplate an alternative for the Red Cliffs NCA RMP that would allow the BLM to honor its commitments towards the Amended HCP. Specifically, the proposed amendments to LAR- 13(e) of the Red Cliffs NCA RMP do not provide the BLM with the discretion to consider future ROW grants on federal lands of the Reserve that would provide for the allowed uses of the Reserve specified in the Amended HCP. The County acknowledges that future ROW grants would also be subject to all appropriate additional review and conservation measures.</p> <p>However, the current language in LAR-13(e) would appear to prohibit the grant of new ROWs when take of listed species would occur, even if such take was able to be authorized in accordance with the ESA. Additionally, no planning level prohibition is permissible if it would prohibit installation or improvement for water or utility projects that otherwise comply with the HCP's Utility Development Protocols and applicable laws and regulations (PL 111-11 Sec. 1974(h)).</p>	<p>The BLM developed the Red Cliffs NCA RMP and the RMP amendments considered in this EIS in accordance with the direction provided by Congress in the Omnibus Public Lands Management Act (OPLMA) regarding the management of resources and resource uses in the Red Cliffs NCA and the BLM's commitments to support the County's HCP. The direction provided in OPLMA states "(h) EFFECT.—Nothing in this section prohibits the authorization of the development of utilities within the National Conservation Area if the development is carried out in accordance with—(1) each utility development protocol described in the habitat conservation plan; and (2) any other applicable law (including regulations)." This direction provided by Congress is included in the Red Cliffs RMP as decision LAR-3 and does not prohibit the BLM from implementing the restrictions on ROW issuance included in the RMP and potential RMP amendments included in the EIS.</p>
4730-1	<p>The money for the routes 1-4, which are not recommended, would be much better spent creating a new route from the St. George Airport area to the Colorado City area, offering a southern corridor from Kanab to Nevada. This would save immense amounts of time and reduce traffic accidents.</p>	<p>As stated in Section 1.2.1, UDOT submitted a ROW application to the BLM for construction, operation, and maintenance of a new highway to reduce congestion, increase capacity, and improve east-west mobility on roadways between SR 18 and I-15 at MP 13. The BLM analyzed the impacts of a reasonable range of alternatives to the proposed action in this EIS. A new corridor between Kanab to Nevada is outside the scope of this EIS because this proposal would not address the applicant's objective to address existing and future traffic concerns within St. George. Therefore, this is not a reasonable alternative to the proposed action and was not carried forward for detailed analysis.</p>

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4984-1	This highway is unnecessary. The existing Red Cliffs Parkway virtually parallels the projected routes. If anything needs to be done, expand & upgrade the Parkway. Also, look at improving the existing frontage road to Exit 13.	Upgrading Red Hills Parkway to an expressway is an alternative considered in detail in the EIS (Alternative 5 is described in Chapter 2 of the EIS). As discussed in Section 2.7.1.6, widening Red Hills Parkway was an alternative considered but dismissed from detailed analysis because it would have substantially similar impacts to most resources as Alternative 5 (the Red Hills Parkway Expressway) and comparatively greater socioeconomic impacts. Furthermore, its implementation is remote or speculative and it may not be economically feasible because of the amount of private property that may need to be acquired. Therefore, widening Red Hills Parkway is not considered a reasonable alternative to the proposed action and was not carried forward for detailed analysis.
5044-1	How much attention has been given to the increased traffic flow on Highway 18 from the top of Bluff to Central or even Enterprise? HWY 18 is essentially a two lane freeway where many, many deaths and accidents have occurred. That issue should be addressed now by UDOT and incorporated into the EIS. And if the Northern Corridor does happen HWY 18 upgrades including collision avoidance structures must be implemented.	As stated in Section 1.2.1, UDOT submitted a ROW application to the BLM for construction, operation, and maintenance of a new highway to reduce congestion, increase capacity, and improve east-west mobility on roadways between SR 18 and I-15 at MP 13. The BLM analyzed the impacts of a reasonable range of alternatives to the proposed action in this EIS. SR 18 upgrades are outside the scope of this EIS because this proposal would not address the applicant's objective of improving the east-west mobility between SR 18 and I-15.
A.04-1	Alternative options could include going around the airport area or other commercial areas. Other non-populated areas on the other side of Interstate 15 could be another consideration for development of heavily traveled routes with high numbers of traffic.	As stated in Section 1.2.1 of the EIS, UDOT submitted a ROW application to the BLM for construction, operation, and maintenance of a new highway to reduce congestion, increase capacity, and improve east-west mobility on roadways between SR 18 and I-15 at MP 13. The BLM analyzed the impacts of a reasonable range of alternatives to the proposed action in this EIS. A new corridor on the east side of I-15 is outside the scope of this EIS because this proposal would not address the applicant's objective to address existing and future east-west travel within the St. George urbanized area and would be substantially similar to the No Action Alternative. Therefore, this is not a reasonable alternative to the proposed action carried forward for detailed analysis in the EIS.

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A.07-2	I have long thought that the compromise could be to establish the road closer to the cliffs and away from the homes, or have an exit off I-15 that goes over the industrial area and connects directly to Red Hills Parkway, a road which already exists to the west side of the county and which could alleviate pressure on the Green Springs exit and St. George Avenue. And, I believe, it is a solution that would be far less costly than the current proposal.	As described in Section 2.7.1 of the EIS, the BLM considered alternatives that would have located the Northern Corridor farther north, away from existing residential developments, including a Northern Alignment and the Twist Hollow Alignment. Refer also to response to ALTS-01.
9027-1	Here are some other suggestions that I have heard: <ol style="list-style-type: none"> <li>1. Build elevated ramps to connect Red Hills Parkway to I-15. This would completely remove traffic connecting Red Hills Parkway to I-15 from the congestion areas.</li> <li>2. Improve flow from I-15 Exit 13 to Bluff St./SR18. Traffic would move more efficiently along Red Hills Parkway through the troubled intersections. This proposal is even more appropriate now that a traffic light has been installed on Telegraph.</li> <li>3. I feel this exit was poorly designed. It should have been wider. Perhaps a bridge overpass could curtail traffic.</li> </ol>	Refer to response to ALTS-01. As stated in Section 1.2.1 of the EIS, UDOT submitted a ROW application to the BLM for construction, operation, and maintenance of a new highway to reduce congestion, increase capacity, and improve east-west mobility on roadways between SR 18 and I-15 at MP 13. Therefore, as described in the EIS the intent of the proposed roadway is to improve traffic flow between I-15 to SR 18, as suggested by this comment.
A.18-3	There is another viable alternative that has not been developed or assessed in the DEIS that would permit the County to move forward with improving east-west transportation flow for the present and into the future, and it would meet the resource management goals and objectives outlined in the Omnibus Public Lands Management Act (OPLMA). This alternative would be a combination of Alternative 5 as presented in the DEIS and to roll in many of the future year I-15 corridor proposals from the Dixie Metropolitan Planning Organization (DMPO) Regional Transportation Plan. By implementing the potential Red Hills Expressway project with connection to I-15 (DEIS proposed Alternative 5), and implementing I-15 lane widening projects and access ramps between Exits 8 and 16 (DMPO projects 36, 84, 159 & 161) at this point in time instead of drawing them out to year 2050, it would meet the current and increasing transportation demands and would contain effects of noise, light and wildlife impacts within the existing transportation corridors.	Preference for Alternative 5 is noted by the BLM. Implementation of I-15 lane widening projects and access ramps (Dixie Metropolitan Planning Organization [DMPO] projects 36, 84, 159 and 161) within the planning horizon represented by the EIS is remote or speculative. Therefore, this is not a reasonable alternative carried forward for detailed analysis in the EIS. However, all future projects identified in the DMPO's Regional Transportation Plan until 2050 were included in the traffic modeling for evaluation and comparison of each alternative in the Draft EIS.

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10827-18	<p>Despite strong and comprehensive public scoping comments, the DEIS omitted one obvious and feasible alternative. This alternative would not improperly mix BLM continued management with no HCP as the No Action Alternative. Instead, this alternative could and should have included the following components: A) Approval of Alternative 5 or 6 to feasibly fulfill the future transportation needs at likely much reduced environmental and economic costs B) BLM denial of the UDOT NCH ROW application C) BLM denial of proposed amendments to weaken the RCNCA Plan D) BLM approval of necessary strengthening amendments to its SGFO RMP relating to its Red Bluff ACEC and so-called Zone 6 lands to advance tortoise conservation E) BLM approval of a future prohibition on target shooting in the so-called Zone 6 lands to protect both tortoises and public safety. F) FWS denial of the county's draft HCP/ITP application because it does not meet the required ESA regulatory standards and the county could implement much stronger tortoise conservation measures with increased funding G) FWS denial of the county's improper "changed circumstance" NCH draft HCP request and, because BLM denied the UDOT NCH ROW application, there is no basis to conduct a NCH related Section 7 ESA consultation. If the DEIS had included the above-described alternative and its components, it would be the alternative that I would strongly support and urge BLM and FWS to adopt and implement.</p>	<p>The EIS considered implementation of Alternatives 5 and 6 in detail (element A in the suggested alternative), which included no amendment to the Red Cliffs NCA RMP Amendment (element C in the suggested alternative). As stated in the EIS, the BLM would deny the UDOT ROW application under Alternative 6 (element B in the suggested alternative); however, the BLM would need to grant the necessary ROW amendments in order to construct Alternative 5.</p> <p>As stated in Sections 2.6.5 and 2.6.6 of the EIS, the changed circumstance related to construction of the Northern Corridor across the Reserve would not be triggered under Alternatives 5 or 6, and proposed Zone 6 would not be created. Amendments to the SGFO RMP that are not triggered in response to UDOT's ROW application are outside the scope of this EIS. Therefore, elements D and E of the suggested alternative were not incorporated into Alternatives 5 and 6 because an amendment to the SGFO RMP would not be necessary under Alternative 5 or 6 because proposed Zone 6 would not be created under either alternative.</p> <p>As stated in Section 2.4 of the EIS, the USFWS will review the Amended HCP and Incidental Take Permit (ITP) to ensure all elements and issuance criteria as required by Sections 10(a)(2)(A) - (B) of the Endangered Species Act (ESA) are met. If the applicant's HCP meets the issuance criteria and is statutorily complete, the USFWS shall issue an ITP.</p> <p>The suggested alternative includes infeasible elements under Alternatives 5 and 6, including out-of-scope amendments to the SGFO RMP that would not be prompted by implementation of Alternatives 5 or 6, as well as the creation of Zone 6, which would not be triggered as a changed circumstance under the HCP under either alternative. Therefore, the suggested alternative is not a reasonable alternative to the proposed action that the BLM should have analyzed in detail in the EIS.</p>

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10827-9	<p>The county is attempting to use BLM Zone 6 land (over which it has zero control) to "mitigate" for harm on other BLM land in the RCDR and RCNCA. The county is telling BLM that it must adopt specific conservation measures on that Zone 6 land for NCH impacts even though BLM can and should implement those measures independently. Meanwhile, the county is attempting to use SITLA (Utah state) lands that it likewise has no control over, to add to the Zone 6 NCH mitigation. BLM and FWS have failed to address the public scoping comments questioning SITLA's legal ability to make such long-term conservation commitments given their dominant fiduciary obligation to maximize revenue for their beneficiaries. A SITLA official has admitted that SITLA could "walk at any time" if lucrative development opportunities arise on its Zone 6 land. So, the county is seeking mitigation credit beyond its authority and where it is undeserved, counterproductive, or illusory. The BLM and FWS should not accept this county "smoke and mirrors" NCH mitigation and draft HCP NCH condition.</p>	<p>Washington County intends to continue its successful partnership with the HCP Partners established by the 1995 HCP. As described in Chapters 1 and 2 of the EIS, the BLM is a willing participant in Washington County's HCP process and intends to become a signatory to the associated HCP Implementation Agreement if an ITP is issued to Washington County by the USFWS. While amendments to the BLM's RMPs can be made at the discretion of the BLM based on new proposals, circumstances, conflicts, or information, the purpose and need of BLM's amendments to the SGFO RMP considered in this EIS are described in Section 1.3.3 of the EIS and are related to the BLM's support for the proposed Washington County HCP and the associated HCP Implementation Agreement.</p> <p>Similar to the BLM, the School and Institutional Trust Lands Administration (SITLA) has indicated the agency's support for the proposed Washington County HCP and the agency's intent to become a signatory to the associated HCP Implementation Agreement if an ITP is issued to Washington County by the USFWS. As described in the Washington County HCP, the intention of the HCP Partners is for the non-Federal lands within proposed Reserve Zone 6 to be acquired by the BLM or other conservation entity for long-term conservation purposes. Refer also to response to DATA-04.</p>
A.20-16	<p>ES and others; ES- 7 and throughout; ES4.5 and throughout. Comment: Zone 6 would NOT be triggered under Alternative 4, the Southern Alignment. Zone 6 is only triggered under Alternatives 2 and 3. It has been made clear by Washington County that this is the case.</p>	<p>As stated in the changed circumstances section of the Draft Amended HCP, approval of the Northern Corridor across the Reserve constitutes a changed circumstance. The Amended HCP explicitly states, "[t]his Changed Circumstance will trigger upon BLM approval of right-of-way for the Northern Corridor across Reserve Zone 3 and USFWS issuance of a Biological Opinion that addresses incidental take of the MDT associated with the proposed Northern Corridor." Accordingly, Alternative 4, in addition to Alternatives 2 and 3, trigger this changed circumstance because they cross Reserve Zone 3's boundaries.</p>

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A.23-1	See attached map for suggested areas. I know the terrain is different and I don't have a map of that, but you will get the idea. There is a lot of land, and no reason to have the road so close to residential areas.	<p>The lower of the two suggested alignments appears to follow a route similar to the T-Bone Mesa Alignment (Alternative 2) that was analyzed in detail in the EIS (refer to Map 2.2-1, Northern Corridor Alternatives Considered in Detail, in Appendix B of the EIS).</p> <p>The upper of the two suggested alignments appears to follow a route similar to the Twist Hollow Alignment (refer to Map 2.7-1, Northern Corridor Alternatives Considered but Eliminated, in Appendix B of the EIS). As stated in Section 2.7.1, this alternative was not carried forward for detailed analysis in the EIS because this alignment would cross a highly sensitive and diverse biological area and would comparatively result in more adverse impacts to wildlife and sensitive species than to similar alternatives carried forward for detailed analysis in the EIS.</p>
H.65-33	<p>For federal agencies, the "no action" alternative normally uses the current status quo management as the baseline for analyzing other alternatives. In this DEIS, BLM does so, but FWS instead uses the rescission and absence of any approved HCP:</p> <p>"Under the No Action Alternative, the USFWS would not grant an ITP to Washington County, and the 1995 Washington County HCP would expire."</p> <p>DEIS at 3-58</p>	Refer to response to A.24-4.

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H.65-61	<p>The applicant has failed to account the impact of anticipated technological improvements (e.g., self-driving vehicles, smart traffic management). The applicant has failed to address solutions other than building new roads (e.g., removing the industrial park traffic from the congestion zones, by-pass routing of thru-traffic).</p>	<p>As stated in Section 1.2.1 of the EIS, UDOT submitted a ROW application to construct, operate, and maintain a new highway to reduce congestion, increase capacity, and improve east-west mobility on roadways between SR 18 and I-15 at MP 13. The BLM’s purpose and need for action is to determine whether to grant a ROW to UDOT in response to its application. Pursuant to NEPA, the BLM considered the potential impacts of the proposed ROW and a range of reasonable alternatives to the proposed action.</p> <p>Widespread use of self-driving vehicles is remote or speculative and not considered a reasonable alternative to the proposed action and was not carried forward for detailed analysis. Implementation of other technological improvements was considered in response to the Conserve Southwest Utah’s Community Transportation Alternative. Refer to responses to ALTS-01 and ALTS-02.</p>
H.65-65	<p>4. The defined alternatives are inadequately scoped in that they do not address traffic issues propagated at the western end of the development of alternatives 2-5. The traffic added to Red Hills Parkway, at its intersection with Bluff St/SR-18 and into Snow Canyon Parkway should be considered. The volume added to these areas of the traffic system were not included in the development of the alternatives and will likely make that intersection and follow-on roadways untenable. Approval of any of these alternatives should include a study of these areas and address any improvements necessary.</p> <p>5. An in-grade intersection for alternatives 2-4 with Cottonwood Road is likely to be untenable in the 2040-2050 timeframe. Future plans should include a grade separated intersection.</p>	<p>Refer to response to ALTS-05. The BLM determined an at-grade intersection at Cottonwood Springs Road would be feasible within the EIS planning horizon based upon discussions during the alternative development process with traffic engineers, environmental resource leads, and agency stakeholders.</p>

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13570-1	<p>BUT I suggest more effective intersections at the two bottlenecks mentioned (i.e. River Road / SG BLVD and Bluff St. &amp; Sunset). Bluff &amp; Sunset should have the traffic light removed and a freeway style intersection installed (constantly flowing traffic), and the traffic light at Sunset &amp; Valley View drive should also be removed and constantly flowing traffic from west to east should be made, forcing right turns for anyone going North and South at that intersection.</p> <p>The same with the River Road and BLVD intersection - the light should be removed and a system for constantly flowing traffic should be installed, even if that means forcing a right turn for cars traveling east and west at that intersection, which means NOT allowing left turns.</p> <p>The same should also be done for the 1000 East and SG BLVD intersection - traffic lights removed and traffic flowing east to west should be constantly flowing, and the traffic going north and south should be forced right turns, unless some other system can be installed to allow all traffic to move freely.</p> <p>The SG BLVD overpass traffic lights and odd cross-over system should also be removed to where no stopping ever occurs on that overpass and new on/off ramps are installed to allow ONLY constantly flowing traffic.</p>	<p>As stated in Section 1.2.1 of the EIS, UDOT submitted a ROW application to the BLM for construction, operation, and maintenance of a new highway to reduce congestion, increase capacity, and improve east-west mobility on roadways between SR 18 and I-15 at MP 13. Although more effective intersections near the project's perimeter at River Road and St. George Boulevard, Bluff Street and Sunset Boulevard, and/or 1000 East and St. George Boulevard may somewhat improve east-west mobility, it would not increase capacity. Improvements to these existing intersections would not increase capacity and would be substantially similar to the No Action Alternative. Therefore, this is not a reasonable alternative to the proposed action and not carried forward for detailed analysis in the EIS.</p>
13629-2	<p>Perhaps their time would be better served planning a route around Ivins and Santa Clara - but not through the Red Cliffs National Conservation Area - in case I-15 is shut down for any period of time.</p>	<p>As stated in Section 1.2.1 of the EIS, UDOT submitted a ROW application to the BLM for construction, operation, and maintenance of a new highway to reduce congestion, increase capacity, and improve east-west mobility on roadways between SR 18 and I-15 at MP 13. An alignment around Ivins and Santa Clara would not address the applicant's objective to address existing and future traffic demands within the St. George urbanized area and would be substantially similar to the No Action Alternative. Therefore, this is not a reasonable alternative to the proposed action and not carried forward for detailed analysis in the EIS.</p>

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13877-1	It is the understanding in the community of Washington City the request for the Northern Corridor was to accommodate emergency services such as the Sherriff's department that reside in Hurricane that are contracted to provide the city of St. George to have another route other than the I-5 Freeway or streets to accommodate such services. An alternative would simply be for a substation in St. George.	As stated in Section 1.2.1 of the EIS, UDOT submitted a ROW application to the BLM for construction, operation, and maintenance of a new highway to reduce congestion, increase capacity, and improve east-west mobility on roadways between SR 18 and I-15 at MP 13. The construction of a substation in St. George for emergency response services does not address the existing and future east-west travel within the St. George urbanized area and would be substantially similar to the No Action Alternative. Additionally, implementation of a substation in St. George is remote or speculative and would require plans and approvals from both Washington City and St. George. Therefore, a new substation is not a reasonable alternative to the proposed action and not carried forward for detailed analysis in the EIS.
13949-1	They can expand the current road SR18 and red cliffs parkway. Widen SR18 to central.	As stated in Section 1.2.1 of the EIS, UDOT submitted a ROW application to the BLM for construction, operation, and maintenance of a new highway to reduce congestion, increase capacity, and improve east-west mobility on roadways between SR 18 and I-15 at MP 13. SR 18 is a north-south roadway. Widening SR 18 is not a reasonable alternative to the proposed action because it would not address the applicant's objective of improving the east-west mobility between SR 18 and I-15 and would be substantially similar to the No Action Alternative. Refer to response to 4984-1.
14022-1	There were other alternatives that were mentioned but not included in the DEIS that I believe are important to look at. From Harmons and the Regional Hospital all the way past Target and the Strip Mall, through the cut of the plateau and past The Red Cliffs Mall, down the domestic stretch until finally passing Albertsons on its way to Walmart, Home Depot, Best Buy and ALL OTHER BUSINESS CRAMMED NEXT TO A FREEWAY the road gets jammed by congestion (NOT BECAUSE PEOPLE ARE TRYING TO GET FROM IVINS, VEYO, OR SANTA CLARA ONTO THE FREEWAY, BUT BECAUSE THAT'S THE ONLY PLACE WHERE SHOPPING IS CONVENIENT). Why is it not possible to put in large parking garages at the Regional Hospital and near the shopping center by Wal Mart and have a convenient "TRAX" system?	As stated in Section 1.2.1 of the EIS, UDOT submitted a ROW application to the BLM for construction, operation, and maintenance of a new highway to reduce congestion, increase capacity, and improve east-west mobility on roadways between SR 18 and I-15 at MP 13. Parking and transit options for River Road and Red Cliffs Drive are outside the scope of this EIS and outside the jurisdictional authority of the BLM. Implementation of these suggested options are remote or speculative to occur within the planning horizon of this EIS and therefore not carried forward for detailed analysis in the EIS. Refer to response to ALTS-07.

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14091-1	I am against the Northern Corridor Highway but if it must go through I feel that a higher route through areas of burned land makes the most sense than the current proposed route.	Refer to response to ALTS-08.
14180-1	Is it possible to provide tunnels and passageways for the Mojave Desert Tortoises and other types of wildlife under the roadways as to keep wildlife able to be utilizing the land on both sides of the Northern Corridor? It seems that some protective measures and creative construction would make this manageable.	Refer to EIS Section 2.2.9.1. UDOT revised the preliminary POD between the Draft EIS and Final EIS. The revised preliminary POD submitted to BLM by UDOT contained additional design features for the proposed action for environmental protection including under-road passages for Mojave desert tortoise.
14616-2	What we do need is a system of local roads with new interchanges accessing I-15 at multiple locations. These new interchanges have already been proposed at Green Springs Drive, N. Main St. in Washington City and 700 S. in St. George and should be pursued.	Refer to response to A.18-3. As stated in Section 1.2.1 of the EIS, UDOT submitted a ROW application to the BLM for construction, operation, and maintenance of a new highway to reduce congestion, increase capacity, and improve east-west mobility on roadways between SR 18 and I-15 at MP 13. New interchanges at I-15 would not address the applicant's objective of improved east-west mobility between SR-18 and I-15 at MP 13. Implementation of I-15 interchange improvements within the planning horizon represented by the EIS is remote or speculative. Therefore, this is not a reasonable alternative carried forward for detailed analysis in the EIS.
14810-4	Why were most of the proposed alignments in the draft EIS so similar in location and connection points (they all connect to Red Hills Parkway); why not look at a Northern Corridor option outside of the Reserve, along the northern boundary of the Reserve, that connect directly to SR18?	Refer to response to ALTS-08.
15040-1	We need a bypass that takes travel from one of the Washington City exits North of the upper most housing development in the Green Springs area and exits closer to The Ledges on SR18. If you've spent any time or money studying the traffic flow on Red Hills Parkway you would have noted that a large portion of traffic exits I-15 at 1000 East, turns left onto Red Hills Parkway only to travel in excess of 70mph then turning right onto SR18 at Bluff towards The Ledges. We need a bypass to take that traffic completely away from the City and away from Red Hills Parkway to keep the congestion down and to help keep our public roads safer.	As described in Section 2.7.1 of the EIS, the BLM considered the Twist Hollow Alignment, similar to the suggestion provided by this comment (refer to Map 2.7-1, Northern Corridor Alternatives Considered but Eliminated, in Appendix B of the EIS). As stated in Section 2.7.1, this alternative was not carried forward for detailed analysis in the EIS because this alignment would cross a highly sensitive and diverse biological area and would comparatively result in more adverse impacts to wildlife and sensitive species than to similar alternatives carried forward for detailed analysis in the EIS.

Letter #- Comment # or Public Concern Statement #	Comment	Response
5461-2	<p>Smart growth planning was not analyzed and I understand it to be beyond the scope of this BLM document. The vast majority of growth occurring and shown to continue into the future in Washington County is occurring along the I-15 corridor and along State Route 9 (SR9). None of these alternatives help with those issues. Most of the retail corridor in St. George lies in the core downtown area and along River Road. No need now or in the projected future exists for new highways to the west. Please consider improvements to existing roadways.</p>	<p>Refer to response to 14022-1 concerning a retail corridor along River Road. Additionally, as stated in Section 1.2.1 of the EIS, UDOT submitted a ROW application to the BLM for construction, operation, and maintenance of a new highway to reduce congestion, increase capacity, and improve east-west mobility on roadways between SR 18 and I-15 at MP 13.</p> <p>Appendix L, Traffic Analysis Memorandum, prepared in coordination with the DMPO, evaluates population growth and its impact on east-west travel demand in Washington County. The Washington County Population section of the Traffic Analysis Memorandum states that heavy growth is expected in Hurricane, St. George’s south block area, Washington City Fields Area, Santa Clara, and Ivins. The memorandum states that the future growth in Washington County is expected to increase the east-west travel demand across the St. George urbanized area.</p> <p>Alternatives that considered improvements to existing roadways were analyzed in detail in the EIS, including the Red Hills Parkway (refer to Section 2.2.5 of the EIS) and the St. George Boulevard/100 South One-way Couplet (refer to Section 2.2.6 of the EIS).</p> <p>Traffic conditions along SR 9 are outside the scope of this EIS and would not address the applicant’s objective to address existing and future traffic demands in the St. George urbanized area.</p>
A.28-5	<p>NEPA requires that the agencies take a hard look at impacts and develop a reasonable range of alternatives, which would include not allowing construction of utility corridors and the Northern Corridor highway.</p>	<p>The BLM evaluated the impacts of Alternative 1, the No Action Alternative. Under the No Action Alternative, BLM would deny a ROW request for the Northern Corridor and there would be no change to the existing management of the BLM Red Cliffs NCA RMP. Refer to EIS Section 2.6.1 for a full description of Alternative 1. Chapter 3 includes the impact analysis for Alternative 1.</p>

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A.42-5	<p>If Alternative 2, 3 or 4 are actually chosen, then additional upgraded and directed access to St. George and Washington shopping areas along and around I-15 between Exits 8 and 10 should be provided by developing an exit at the Old Dump/Cottonwood Springs Road near T-Bone and upgrading the existing road to the south to a suitable 2-4 lane road that would intersect the East Red Hills Parkway at the I-15 underpass intersection. This could be important mitigation for the potential effects of increased traffic along Green Spring Drive by shunting traffic to shopping areas through a more central, predominantly industrial/commercial area (few residential dwellings) versus the largely in-built, occupied residential areas of Green Spring and the overly crowded traffic at the Exit 10 interchange.</p>	<p>This suggestion is already part of the DMPO 2019--2050 long-range transportation plan (improve Cottonwood Springs Drive from Red Hills Parkway to the Northern Corridor). As such, it has been included in the analysis for all the alternatives, including the No Action Alternative.</p>
A.51-46	<p>22, 2-30, 2.7.1 Text: "Although the location [of the Twist Hollow Alignment] may address some resource conflicts with the Mojave desert tortoise, it would not meet the purpose and need to provide for consistency with the statutory purposes of the Red Cliffs NCA, which includes other ecological and scenic resources." Comment: It is not clear why this rationale is being applied to the Twist Hollow Alignment as an alternative considered but rejected when none of the action alternatives, excepting Alternatives 1 and 6, meets the very same "purpose and need to provide for consistency with the statutory purposes of the Red Cliffs NCA." Either this assertion cannot be used to dismiss the Twist Hollow alternative, or Alternatives 2, 3, 4, and 5 should also be dismissed because they also do not meet the purpose and need. It would seem that standards are being used arbitrarily in favor of the Applicant's desire to develop the Northern Corridor.</p>	<p>Section 2.7.1.1 of the Final EIS has been clarified to acknowledge that the Twist Hollow Alignment would be less effective at meeting the purpose and need to provide for consistency with the statutory purposes of the Red Cliffs NCA, which includes other ecological and scenic resources.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-330	<p><b>4.13 Land Use/Growth Regulation</b>                      "Comments received during the scoping process suggested limiting development in Washington County, or setting growth regulations as a Northern Corridor alternative for consideration. Land use planning, including existing and planned development, is controlled by the local municipalities within Washington County as outlined in city general planning documents. Limiting development in Washington County, or setting growth regulations, is inconsistent with current local government general land use and zoning plans. The Land Use/Growth Regulation Alternative would be inconsistent with the managing objectives of the local municipalities over land use planning and its implementation is remote or speculative. Therefore, the alternative has been eliminated from detailed analysis in the Draft EIS."                      Issue:                      13. It is and must be untrue that" setting growth regulations is inconsistent with current local government general land use and zoning plans". It is local governments' job to manage development and growth. Zoning is one of the primary methods of doing this. It is completely within local government authority to define through regulations how the area is to grow. If those growth plans adopted Vision Dixie principles as directed by the citizens of the county, the traffic problems sought to be solved by the Northern Corridor could have been averted. It is disingenuous to assume improved growth planning cannot impact the projected traffic issues addressed by this DEIS.</p>	<p>Although an alternative that is outside of the lead agency's jurisdiction must be analyzed if it is considered reasonable, in addition to the fact that land use planning and traffic management is beyond the BLM's jurisdiction, it is remote or speculative that these land use plans would be implemented because they are inconsistent with the managing objectives of the local municipalities over land use planning. Therefore, implementation of land use/growth regulations is not a reasonable alternative to the proposed action.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.24-4	<p>4) Alternative 1, the No Action Alternative, improperly links BLM continued management with rescission of any HCP.</p> <p>For federal agencies, the “no action” alternative normally uses the current status quo management as the baseline for analyzing other alternatives. In this DEIS, BLM does so, but FWS instead uses the rescission and absence of any approved HCP. The mixing of these two disparate baselines skews the DEIS analysis.</p> <p>For example, it is difficult for the public to distinguish how the proposed new HCP would change tortoise conservation in contrast to continuation of the current 1995 HCP. The DEIS approach of either the new HCP or no HCP is a false choice as no one advocates for rescission of the HCP. The real question should be: since the current HCP has failed to halt the continuing rapid decline in tortoise numbers and usable habitat acres, how would the new proposed HCP change that status quo and effectively stop or reverse those declines? Despite hundreds of pages, the NCH DEIS does not answer this pivotal question. Without that answer, FWS cannot properly determine that the new draft HCP would not “appreciably reduce” the prospects for tortoise recovery nor that approval of the NCH ROW would not “jeopardize” tortoises and their critical habitats.</p> <p>From a NEPA perspective, the NCH DEIS fails to provide clear distinctions among the tortoise conservation choices and therefore fails to provide and analyze the required reasonable range of alternatives.</p>	<p>As described in more detail in Question 3 of CEQ’s “Forty Most Asked Questions Concerning CEQ’s National Environmental Policy Act Regulations,” for Federal decisions on proposals for projects or permits, “No action” would mean the proposed activity would not take place, and the resulting environmental effects from taking no action would be compared with the effects of permitting the proposed activity or an alternative activity to go forward. Where a choice of “no action” by the agency would result in predictable actions by others, this consequence of the “no action” alternative should be included in the analysis.</p> <p>The No Action Alternative is accurately described in the EIS. If the USFWS were not to issue Washington County an ITP based on the Amended HCP, the USFWS would also stop authorizing take under the 1995 HCP and associated ITP, which expired in 2016, and Washington County would cease to implement the 1995 HCP.</p> <p>The USFWS is reviewing the Amended HCP submitted by Washington County as directed by Section 10(a)(2)(A) of the ESA and its implementing regulations at 50 CFR 17.22 and 17.32, and the 2016 HCP Handbook. If the HCP submitted by the applicant meets issuance criteria and is statutorily complete, USFWS shall issue the permit.</p>

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H.65-6	<p>It is incumbent upon FWS to analyze an HCP/ITP alternative that does not link renewal to the granting of the NCH ROW through the Red Cliffs Desert Reserve and NCA. The Endangered Species Act 10(A)(2) requires FWS to issue an ITP only if certain criteria are met, including:</p> <ul style="list-style-type: none"> <li>ii. The applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking.</li> <li>iv. The taking will not appreciably reduce the likelihood of survival and recovery of the species in the wild. DEIS analysis shows that the NCH would destroy and adversely modify critical habitat and cause the take of threatened MDT. FWS cannot issue an ITP based on this Draft HCP because it accommodates the NCH as a changed circumstance that would jeopardize the central mitigation feature of the original HCP, the Red Cliffs Desert Reserve, and violate the ESA10(A)(2) criteria listed above. Therefore, FWS must reject this Draft HCP and study a new alternative that issues a new ITP supported by an HCP that does not accommodate the NCH, and does include enhanced conservation measures for the MDT.</li> </ul>	<p>For ITP renewals or amendments, the USFWS is required to update scientific information and to ensure that all statutory and regulatory requirements are met. To issue a permit, the USFWS is required to show that the Amended HCP still meets ITP issuance criteria (2016 HCP Handbook). The USFWS considers Section 10(a)(2)(A) of the ESA and its implementing regulations at 50 CFR 17.22 and 17.32; and the 2016 HCP Handbook as the most current regulations, policy, and standards for HCP and associated amendments. If the HCP submitted by the applicant meets issuance criteria and is statutorily complete, USFWS shall issue the permit.</p> <p>The comment misrepresents the USFWS’s obligations to consider other alternatives to the Amended HCP submitted by Washington County. As stated in Section 2.4 of the EIS, the ability for the USFWS to exercise discretion over an ESA permit applicant’s non-Federal activities is limited to ensuring the non-Federal entity’s permit application meets the statutory and regulatory criteria in ESA Section 10(a)(2)(B) and 50 CFR 17.22 (b)(1) and 17.32(b)(1). This means that the ability of the USFWS to exercise control and responsibility over an applicant’s non-Federal activities under the ESA is limited to what is “necessary or appropriate for purposes of the plan” (50 CFR 17.22 (b)(1)(iii)(D)). This interpretation is consistent with the basic tenet that the USFWS does not authorize the applicant’s activities causing the incidental take, but rather the take resulting from the applicant’s activities. In the event that the USFWS determines that the Amended HCP does not meet issuance criteria, the appropriate resolution would be for USFWS to deny the permit, not consider an alternative that would amend the conservation program.</p>

<b>Letter #- Comment # or Public Concern Statement #</b>	<b>Comment</b>	<b>Response</b>
A.51-63	<p>3-128, 3.15.1.3 Text: “The SGFO RMP designates much of Washington County, including BLM-administered portions of proposed Zone 6, as an Extensive Recreation Management Area (ERMA).” Comment: The Council is concerned that referring to a conservation area for “extensive recreation” will undermine the intended, new use of Zone 6 for tortoise conservation. Therefore, we ask that the ERMA designation be removed from Zone 6 in the foreseeable likelihood that one of the pro-Northern Corridor alternatives will be adopted.</p>	<p>The comment misinterprets the designations used in BLM’s land use planning process for recreation. The identification of an ERMA does not imply that the BLM is intending to promote “extensive” recreation in the area. The BLM Land Use Planning Handbook H-1601-1 clarifies that when developing RMPs, areas not delineated as Special Recreation Management Areas (SRMA) are Extensive Recreation Management Areas (ERMA). ERMAs are defined as “a public lands unit identified in land use plans containing all acreage not identified as a SRMA. Recreation management actions within an ERMA are limited to only those of a custodial nature”. By comparison, SRMAs are defined as “a public lands unit identified in land use plans to direct recreation funding and personnel to fulfill commitments made to provide specific, structured recreation opportunities (i.e., activity, experience, and benefit opportunities).” The BLM would need to designate the proposed Reserve Zone 6 as an SRMA to remove the ERMA designation. Designating proposed Reserve Zone 6 as an SRMA would not meet the BLM’s purpose and need for action related to the amendments to the SGFO RMP being considered in the EIS.</p>
A.51-65	<p>At this point, we are taking the opportunity to express our concern that there are no versions of the modified RMPs that can be reviewed at this time. Certainly, decisions being made now may be interpreted in different ways, which will express themselves in the revised RMPs. Therefore, we believe that specific revisions to the RMPs should have been identified and made available as part of the current review process.</p>	<p>Sections 2.3 and 2.5 of the EIS contain the full text of the RMP amendments being considered by the BLM. These amendments would modify the existing RMPs, which are available for public review on the BLM’s ePlanning website.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-459	<p>Land Use: Determine to what degree the projected traffic congestion can be alleviated by changes in land use designations throughout the county. BLM may argue that land use planning and smart growth are outside the scope of this NEPA analysis because BLM has no authority over zoning and land use on private lands. However, the county and other municipalities that sign on and benefit from the HCP do have this zoning and land use authority. We argue that since the county is behind the UDOT NCH ROW application, it would be disingenuous for them to say that its future land use and zoning decisions are not relevant as part of a comprehensive transportation analysis. The county and cities clearly either make traffic congestion better or worse based on their cumulative zoning and land use decisions. For example, the density of different designated zoning districts, and the number of lots approved in subdivision plats, obviously affects the amount of traffic that would be generated at those locations. If the county and cities choose to continue to allow endless sprawl development, should they be rewarded by letting them harm an NCA and threatened species. Addressed in the DEIS: No.</p>	Refer to response to ALTS-02.
H.65-452	<p>Purpose and Need: Whether applicants have considered advancements in transportation which include self-driving cars, mass-transit, shared vehicles, etc. that would reduce congestion on our roadways. Addressed in the DEIS: No.</p>	Refer to responses to ALTS-07 and H.65-61.
H.65-453	<p>Purpose and Need: Whether applicants have considered changes to current land use planning and zoning (i.e. implementation of Vision Dixie Smart Growth Principles) that would reduce congestion on our roadways. Addressed in the DEIS: No.</p>	Refer to response to H.65-330.

**0.3.3 Areas of Critical Environmental Concern (ACECs)**

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.51-10	<p>We are particularly concerned that none of the environmental documents disclose that the foreseeable “Western Corridor” would bisect the Red Bluffs ACEC and border the western boundary of the proposed Zone 6 satellite reserve. Whereas, the environmental documents laud the “improved conservation status” and “beneficial management actions” in the new Zone 6 management area, they fail to identify the direct and indirect effects that would result from the planned-for Western Corridor. In planning for the Western Corridor, the agencies and HCP Partners have intentionally excluded the western half of the Red Bluffs ACEC from the Zone 6 satellite reserve to accommodate another new freeway, which is not even mentioned in the cumulative effects analysis. We are also concerned that if only the eastern half of the Red Bluffs ACEC is protected in reserve status, the excluded western half of the ACEC will be adversely impacted by human activities displaced from the newly-designated satellite reserve.</p>	<p>Additional analysis regarding potential cumulative impacts associated with the Western Corridor has been added to Section 3.28 of the EIS. Refer also to response to A.51-64.</p>
A.51-64	<p><b>41, 3-128 3-133, 3.15.1.3</b>  Text: “The area of proposed Zone 6 has been a popular destination for recreational users for decades, with recent estimated visitor use on BLM-administered and SITLA lands totaling 82,775 annual visits (pers. com. Kiel 2019b, pers. com. Voyles 2020). [And] “...these users are likely to seek out experiences on public lands further west of proposed Zone 6.”  Comment: We note that this is the only place in the DEIS where BLM acknowledges that recreation activity displaced from the east half of the ACEC onto the west half of the ACEC is likely to occur. This single sentence does not constitute the analyses we requested on page 10 of our scoping comments, nor do we see any measures in the DEIS that BLM intends to implement to curtail displaced, illegal activities onto those parts of the ACEC not included in the proposed Zone 6 satellite reserve, which we identify as a deficiency of the DEIS that must be addressed in the Final EIS.</p>	<p>The comment misinterprets or misrepresents the BLM’s analysis in the recreation section of the EIS regarding how recreational users may react to the proposed actions within Reserve Zone 6 and suggests outcomes that are not supported by the facts on the ground. There are many factors that affect how users may react when a use is precluded from a location where it has historically occurred. These factors include availability of preferred locations to attract that use (e.g., off-highway vehicle [OHV] play areas, target shooting ranges); law enforcement, education, and associated shifting user behaviors; and changes in user interests and use patterns from the influences of adjacent land uses.  As described in the cumulative impacts analysis in Section 3.28 of the EIS, the BLM is currently preparing a Comprehensive Travel and Transportation Management Plan for the BLM SGFO and is working with Washington County to develop a target shooting range. The completion of the Travel Management Plan</p>

Appendix O Responses to Public Comments on the Northern Corridor – Highway Right-of-Way, Issuance of an Incidental Take Permit Final EIS and Draft RMP Amendments

Letter #- Comment # or Public Concern Statement #	Comment	Response
		<p>may reduce the number of routes available for use in the Red Bluff ACEC and is anticipated to reduce impacts of OHV and bicycle use on relevant and important ACEC values. The development of the target shooting range would serve as a safe and compatible location for the public to engage in target shooting. Additionally, if proposed Reserve Zone 6 is implemented, additional funding for law enforcement and education will be provided by Washington County. Furthermore, Navajo Drive, which acts as a primary access point for users, proceeds south of the Red Bluff ACEC as it passes through proposed Reserve Zone 6; therefore, users displaced to the west would likely not be displaced to a location within the Red Bluff ACEC. While the agencies acknowledge that recreational users may seek alternative locations for these activities and some of these locations may be west of proposed Reserve Zone 6, based on the aforementioned factors, the agencies believe it would be speculative to assume that impacts on the Red Bluff ACEC, relevant and important values, outside of proposed Reserve Zone 6 would occur as a result of the actions analyzed in the EIS.</p> <p>Additionally, users anywhere within the Red Bluff ACEC would still need to meet the restrictions placed on uses for the ACEC in the 1999 St. George RMP; these include restricting mountain biking and OHV use to existing routes.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.51-68	<p>44, 3-144, 3.19</p> <p>Text: “Decisions to be made by the BLM in this Draft EIS would not affect or alter the management of ACECs managed by the SGFO outside proposed Zone 6. Therefore, the analysis area for ACECs is the proposed Zone 6 boundary.”</p> <p>Comment: The Council disagrees with these statements on page 3-144 for the following reasons. As stated in the DEIS on page 3-133, the BLM anticipates that reduced recreation activity in Zone 6 will displace those activities to the west, which corresponds to the remainder of the Red Bluffs ACEC (see Map 2.5-15 in Appendix B). Please indicate how ACEC management and monitoring of recreation use will be changed to address this foreseeable impact.</p>	<p>Refer to response to A.51-64. The BLM does not anticipate a need to alter management of the Red Bluff ACEC as a result of the actions analyzed in this EIS. The BLM is actively engaged in the monitoring of recreational use in this area and throughout Washington County. Furthermore, additional resources for law enforcement and user education would be provided by Washington County if proposed Reserve Zone 6 is implemented. A land use planning or implementation-level NEPA decision is not needed for the BLM to adjust monitoring resources and priorities, should that need arise.</p>
A.51-80	<p>55, 3-190, 3.28.1.18</p> <p>Text: “Events would not create new surface disturbance because they would be limited to established trails.”</p> <p>Comment: As described elsewhere, this statement naively dismisses impacts associated with spectators and from event participants who are likely to camp in areas adjacent to established trails before, during, and after the events. We suggest that this sentence either be removed or modified in the Final EIS to address this concern.</p>	<p>The BLM does not currently authorize camping within proposed Reserve Zone 6 in association with any event. Each event that is permitted by the BLM is monitored for compliance with restrictions, and resource conditions are assessed before and after each event. The results of this monitoring for past events support the BLM’s statements in the EIS and do not suggest that the impacts suggested in the comment are likely. Under the action alternatives, dispersed camping within proposed Reserve Zone 6 would become either more limited and formalized or be eliminated. Alternative B would close all BLM-administered lands within proposed Reserve Zone 6 to camping and campfires, while Alternative C would allow these activities in designated locations. Addressing illegal camping is an enforcement issue that is not addressed through this EIS planning process, though Washington County would provide additional resources for law enforcement and user education if proposed Reserve Zone 6 is implemented. In response to areas of identified illegal camping, the BLM may post signs or install barriers to discourage unauthorized use.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.51-79	<p>54, 3-190, 3.28.1.18 Text: “Alternatives 2, 3, and 4 would result in entirely beneficial effects on the Red Bluff ACEC, while Alternatives 1, 5, and 6 would not impact ACECs” (emphasis added). Comment: As noted elsewhere, we believe this statement is erroneous because less than 40% of the Red Bluffs ACEC would be included in the Zone 6 satellite reserve. The BLM admits on page 3 133 that the western parts of the ACEC may be impacted by displaced recreational activities from the eastern portions now being considered in Zone 6. This statement needs to be modified in the Final EIS for accuracy to further identify the deleterious effects of bisecting the ACEC and future uneven management of the two parts.</p>	Refer to response to A.51-64.
H.65-27	<p>FLPMA directs BLM to make it a priority to designate worthy ACEC's during its RMP planning and implementation. Washington County is seeking mitigation credit for the NCH for some proposed Zone 6 BLM lands within the existing SGFO RMP designated Red Bluff ACEC. Given the documented MDT declines in the UVRU discussed elsewhere in these comments, BLM should strengthen and/or expand the Red Bluffs ACEC as part of this NEPA process to improve tortoise protection, but without making those improvements conditioned on NCH approval.</p>	As described in Section 1.3.3 of the EIS, the BLM's need to consider an amendment to the SGFO RMP in the current action is associated with the BLM's support for the proposed Washington County HCP and the associated HCP Implementation Agreement. The Red Bluff ACEC's designated relevant and important values are the endangered dwarf bear-poppy and highly erodible saline soils. The EIS appropriately acknowledges that the potential SGFO RMP amendments would benefit these relevant and important values. However, the BLM's purpose and need for considering an amendment to the SGFO RMP does not warrant modifying the management applied to protect the relevant and important values of the Red Bluff ACEC or reconsidering the relevant and important values of the ACEC itself.

**0.3.4 BLM Lands and Realty**

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.51-71	<p>47, 3-146, 3.20.1</p> <p>Text: "...the BLM's issuance of a ROW could impact future land tenure actions including acquisitions of non-Federal lands crossed by an alternative."</p> <p>Comment: We are concerned with the above statement and no additional explanation. What does this statement mean with regards to the private parcels that would be affected by BLM's endorsement of any one of the four action alternatives (2, 3, 4, and 5) that would cross private lands? Does the BLM still intend to acquire and manage these private lands if one of these four alternatives is approved?</p>	<p>The EIS text in Section 3.20.2.3 has been revised for clarity. The non-Federal lands within the Red Cliffs NCA are identified for Federal acquisition in the Red Cliffs NCA RMP. The decisions to be made in the EIS would not affect the BLM's intention to acquire the non-Federal lands within the Red Cliffs NCA. However, as outlined in the Red Cliffs NCA RMP (refer to decision LAR-10) land acquisitions within the Red Cliffs NCA are completed through purchase, exchange of public lands targeted for disposal outside of the NCA boundaries, donation, or conservation easement with willing land owners. If a ROW is approved across the Red Cliffs NCA, UDOT may acquire some non-Federal lands within the Red Cliffs NCA to support the needed ROW for the Northern Corridor. UDOT's interests may be different than those of the current landowners and this may impact the ability of BLM to acquire lands owned by UDOT.</p>
H.65-299	<p>Alternatives 2, 3, and 4 would result in impacts on BLM lands and realty in both the Red Cliffs NCA and proposed Zone 6, including the ability to accommodate future demand for land use authorizations, impact on existing authorizations, and future land tenure adjustments. Under these alternatives, the BLM would continue to manage the areas outside of designated ROW corridors within the Red Cliffs NCA as an avoidance or exclusion area for new ROWs. The only reasonably foreseeable future actions in Table 3.28-1 with the potential to impact BLM lands and realty in the Red Cliffs NCA and proposed Zone 6 are the BLM parcel acquisitions in the Red Cliffs NCA. The authorization of a ROW for the Northern Corridor under Alternatives 2, 3, and 4 would likely result in reduced opportunities for these types of land tenure adjustments, because some of the lands targeted for acquisition could become encumbered with a ROW for the Northern Corridor. There are no other reasonably foreseeable future actions in the BLM lands and realty analysis area that would impact lands and realty.</p>	<p>Item 19 presented in the comment inappropriately suggests that approval of a Northern Corridor across the Red Cliffs NCA would enable private in-holding development. This statement is not factual. The primary factor that limits private in-holding development in the Red Cliffs NCA is the zoning of these areas and the presence of ESA-listed species and designated critical habitat on these properties; the development of which is not a covered activity in the 1995 Washington County HCP or Amended HCP. Furthermore, as outlined in the POD submitted by UDOT, the Northern Corridor is proposed as an "Urban Arterial" roadway. For the alternatives crossing the Red Cliffs NCA, the only intersection between Red Hills Parkway and Green Spring Drive would be located at Cottonwood Springs Road (also known as Old Dump Road or Turkey Farm Road), which would be constructed as an at-grade intersection. Therefore, the potential alternatives would</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
	<p>Issue</p> <p>19. Alternatives 2-4 would greatly increase the complexity of BLM lands and realty in that they would enable private in-holding development and reduce the opportunity for their incorporation into the NCA. This more complex condition is not addressed in the DEIS.</p> <p>20. The BLM has demonstrated that an avoidance or exclusion area does not preclude development, as alternatives 2-4 route through such areas. The DEIS seems to overstate the impact of these areas.</p>	<p>not increase access to in-holdings that could influence potential development pressures.</p> <p>Regarding item 20, the comment incorrectly states that Northern Corridor Alternatives 2 to 4 would be in an area designated as a ROW exclusion area in the Red Cliffs NCA RMP. As described in the EIS, this is not accurate. While BLM can amend RMPs as needed based on new information, updated analyses, or new resource use or protection proposals, it is reasonable for the BLM to base the analysis contained in the EIS off an assumption of conformance with decisions in the RMP related to ROW avoidance and exclusion areas. The Red Cliffs NCA RMP contains criteria for issuing a ROW in avoidance areas that help avoid or reduce impacts from the authorization of ROWs. While the BLM is considering an amendment to these criteria for the Northern Corridor as described in Section 2.3 of the EIS, the amendment would only apply to an area up to 500 feet wide along the Northern Corridor. Note, Table 3.28-1 in the Draft EIS is now Table 3.28-2 in the Final EIS.</p>
H.65-585	<p>2- Non-BLM Lands: ROW is required through the entire ~5-mile long proposed highway through lands governed by the provisions of the HCP and NCA, not just those currently managed by the BLM. Addressed in DEIS: No</p>	<p>The EIS analyzes the potential impacts of BLM issuing a ROW to UDOT across BLM-administered lands crossed by the Northern Corridor alternatives. The analysis in the EIS also evaluates the potential impacts of the construction of the Northern Corridor on non-Federal lands for each of these alternatives.</p> <p>While the administrative procedures used by the applicant to acquire the necessary ROW or easements across private or State lands for each alternative is beyond the scope of the EIS, UDOT's POD submitted to the BLM indicates that "The Project will require acquisition of necessary lands (i.e., ROW) and construction easements from private landowners, Utah School and Institutional Trust Lands Administration, and the Utah Division of Wildlife Resources using a standard ROW acquisition process after a decision is issued on the NEPA document."</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-246	<p>3.20 BLM Lands and Realty 3.20.1 Affected Environment 3.20.1.1 Land Tenure Red Cliffs NCA</p> <p>"The actions analyzed in this Draft EIS will not change BLM land tenure decisions in the Red Cliffs NCA RMP. "However, lands previously acquired by the BLM would be impacted by the Northern Corridor alternatives, and the BLM's issuance of a ROW could impact future land tenure actions including acquisitions of non-Federal lands crossed by an alternative" (DEIS at 3- 145). No Federal lands within the Red Cliffs NCA are available for disposal. Subject to valid existing rights, all Federal land located in the Red Cliffs NCA is withdrawn from all forms of entry, appropriation, and disposal under the public land laws; location, entry, and patenting under the mining laws; and operation of the mineral leasing, mineral materials, and geothermal leasing laws (BLM 2016b)."</p> <p>Issue:</p> <p>1. BLM investments of taxpayer money in property to preserve as habitat should not be violated by the Northern Corridor. That would represent a misuse of funds.</p>	<p>Comment noted. Refer to Sections 3.6 (ESA Section 6 Land Acquisition Grants) and Section 3.16 (Land and Water Conservation Fund Act Lands) of the EIS for additional information regarding past Federal acquisitions in the Red Cliffs NCA.</p>
H.65-247	<p>Proposed Zone 6</p> <p>BLM-administered lands comprise 51 percent of land ownership within proposed Zone 6, with the remaining land being owned by State agencies and private owners (Table 3.20-1). The SGFO RMP has not identified any lands within proposed Zone 6 for acquisition. Decision FW-13 in the SGFO RMP specifies that, "public lands supporting Federally listed or sensitive animal species will be retained in public ownership unless exchange or transfer will result in acquisition of better habitat for the same species or provide for suitable management by another agency or qualified organization" (BLM 1999).</p> <p>All BLM land tenure adjustments require site-specific environmental review including NEPA analysis and compliance with other laws including the ESA.</p>	<p>Comment noted. The actions analyzed in the EIS do not include any site-specific land tenure adjustments. However, the BLM is considering amending the identification of lands available for disposal and lands identified for potential Federal acquisition identified in the SGFO RMP within proposed Reserve Zone 6.</p>

**0.3.5 BLM Travel and Transportation Management**

Letter #- Comment # or Public Concern Statement #	Comment	Response
Form 4-18	The Draft EIS states that Zone 6 contains 50 miles of trails open to motorized OHV use, 30 miles of single-track, non-motorized trails, and 42 miles of social trails, but fails to show how recreation in Zone 6 could mitigate for loss of quiet, non-motorized recreation on trails in Red Cliffs[9].	While the actions described in the EIS within proposed Reserve Zone 6 would provide benefits to many of the same resources that would be impacted by the potential construction of the Northern Corridor across the Red Cliffs NCA, these actions are not intended as, and should not be implied to be, mitigation of the potential impacts on the objects and values of the Red Cliffs NCA. As described in the EIS, the BLM and USFWS are not required to fully mitigate the impacts that could occur as a result of each agency's decisions to be made in the EIS. Refer also to responses to DATA-01 and NCA-03.
A.24-8	8) The NCH DEIS analysis improperly characterizes the OPLMA “identify” requirement that Congress wanted in the TMP, and fails to acknowledge that granting a NCH ROW would moot out future TMP consideration. Please note the following sentence from NCH DEIS Section 1.1 on page 1-1: “If a ROW is granted and the RMP is also amended, BLM will then be able to fully consider that ROW as a specific northern transportation route (i.e. a Northern Corridor) as part of a future travel management planning process as Congress has instructed in Section 1977 of OPLMA.” In OPLMA, Congress said that BLM should identify one or more northern transportation routes as part of its Travel Management Plan (TMP). The BLM SGFO TMP is still pending and many years behind schedule. The TMP could have been completed, and this “identification” requirement met, long before UDOT filed its NCH ROW application. Those TMP designations would have been made consistent with the current SGFO and NCA RMP designations and decisions, without the need for any weakening amendments. (Those designations could have also reduced route mileage in the BLM portion of Zone 6 with no linkage to the NCH). Instead, BLM dug its feet, and now faces the UDOT NCH ROW application and the whole convoluted, interconnected NCH DEIS mess. BLM’s procrastination turned a mole hill into a mountain. BLM now says that it must weaken the RCNCA	The comment misrepresents many elements of BLM’s processing of UDOT’s ROW application and the ongoing development of the Comprehensive Travel and Transportation Management Plan for the BLM SGFO. The statements from the EIS quoted in the comment are factual. The BLM is working to meet the requirement in OPLMA to complete the Comprehensive Travel and Transportation Management Plan for the BLM SGFO and has completed elements of the plan including route inventory and evaluation, the data from which has been incorporated into the EIS.  Due to the submittal of a ROW application by UDOT, the BLM is obligated to respond in compliance with Title V of FLPMA, BLM’s ROW regulations, 43 CFR part 2800, and other applicable Federal laws. Through this EIS, the BLM is considering alternatives to the proposed ROW alignment in compliance with NEPA and applicable regulations. This analysis provides support for the identification of a northern transportation route in any future travel management planning efforts. Further, the BLM Travel and Transportation Handbook (H-8342) instructs the BLM to include roads in the designated travel network that are analyzed through the travel management planning process. The handbook defines a road as “A linear route declared a road by the owner, managed for use by low-clearance vehicles having four or more wheels, and maintained for regular and continuous use.

Letter #- Comment # or Public Concern Statement #	Comment	Response
	<p>RMP and issue UDOT a NCH ROW before it can proceed to consider the NCH as part of a future TMP. This is beyond backwards. Once BLM issues the UDOT NCH ROW, it will actually moot out the TMP EA analysis and consideration. BLM will thereby abrogate the OPLMA TMP “identify” requirement by preemptively losing its TMP related discretion through issuance of a binding NCH ROW. After BLM issues the UDOT NCH ROW, there is no way that it could attempt to back-track or consider a “closed” or “limited” NCH route designation in the eventual approved TMP. The NCH would be a premature fait accompli.</p>	<p>These may include ROW roads granted by the BLM to other entities.” If a ROW is granted to UDOT for a Northern Corridor, it would be identified in the Comprehensive Travel and Transportation Management Plan in compliance with current guidance for travel management planning.</p>
<p>A.25-53</p>	<p>The comments in 3.17.1 Affected Environment regarding the demands of recreation are troubling. As stated, we acknowledge the importance of recreation, but it’s not the reason Red Cliffs was establishing twenty-five years ago. The area under consideration for a NC ROW was not established primarily for “recreation” as shown in Section 3.18.1 of this DEIS:</p> <p>Through OPLMA of 2009 (P.L.111- 11 at Title I, Subtitle O at sec. 1974(a)) Congress defined the purposes for designation of the Red Cliffs NCA as follows:</p> <p>To conserve, protect, and enhance for the benefit and enjoyment of present and future generations the ecological, scenic, wildlife, recreational, cultural, historical, natural, educational, and scientific resources of the National Conservation Area; and</p> <p>To protect each species that is – located in the National Conservation Area; and listed as a threatened or endangered species on the list of threatened species or the list of endangered species published under Section 4(c)(1) of the Endangered Species Act of 1973 (16 U.S.C. 1533(c)(1)) (emphasis added)</p> <p>And, from the December 1995 Habitat Conservation Plan: Washington County has prepared this Habitat Conservation Plan (HCP) anticipating that it will provide a comprehensive approach to preserving and protecting Mojave desert tortoise habitat in Washington County, while at the same time allowing controlled growth and development in those</p>	<p>The comment incorrectly implies that Congress provided a hierarchy of the purposes for which it established the Red Cliffs NCA in OPLMA. Additionally, the sections of the EIS that the comment refers to are very specifically focused on analyzing the potential impacts to BLM Transportation and Travel Management and the Red Cliffs NCA, which is limited to BLM-administered lands. These sections intentionally and explicitly do not address non-Federal lands within the Red Cliffs Desert Reserve.</p> <p>The Red Cliffs NCA’s objects and values are based on the purposes of the NCA as identified by Congress in OPLMA and further clarified in the Red Cliffs NCA RMP.</p>

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	<p>portions of desert tortoise habitat which are less essential to the species. (emphasis added)</p> <p>Please note that “recreation” is not specifically listed in the document establishing the HCP. In the OPLMA language, “conserve, protect and enhance” are the primary reasons and the resources listed first to be conserved, protected and enhanced are “ecological, scenic, and wildlife” before recreation is even mentioned.</p> <p>Although Red Cliffs NCA/Reserve is now a critical component of Washington County’s recreation experience, it was not established as a recreation area. It was established because of the naming of the Mojave desert tortoise as threatened and the need to protect the species in Washington County so the county could grow.</p>	
A.25-54	<p>It seems clear from the DEIS language that accommodation for the trail crossings and a decision regarding a paved bike/pedestrian trail on one or both sides of the highway have not already been factored into the design and cost of NC routes 2-4 through the NCA/Reserve. This seems a major error in the planning and design and makes any cost associated with those alternatives not accurate at this time. Again, “providing more opportunities to access surrounding non-motorized and motorized trails and routes” for the public is not the main purpose of Red Cliffs NCA/Reserve.</p>	<p>Between the Draft and Final EIS, UDOT submitted a revised POD that included additional design features for the alternatives proposed across the Red Cliffs NCA, including language clarifying how trail passages/ crossings would be accommodated. Additional information and analysis has been added to Sections 3.15 and 3.17 of the EIS, consistent with the new design features and mitigation measures detailed in Section 2.2.9.</p> <p>The BLM has also revised Section 2.2 of EIS to include cost estimates for each Northern Corridor alternative that were developed in collaboration with appropriate engineering expertise from UDOT and other transportation agencies. Refer also to response to A.25-53.</p>
H.65-203	<p>Trail: Cottonwood Springs Road</p> <p>Info Requests and Impact Issues from CSU’s Scoping Comments not Addressed in DEIS: DEIS does not specify how passage/crossing of this important motorized road by the NCH will be accommodated.</p> <p>RMP Amendment Tradeoffs for Alternatives B and C: Potential impacts to motorized route providing remote access to Yellow Knolls Heritage Site and other trails, and used by mountain bikers, trail runners, and hikers.</p>	<p>As described in Section 2.2 of the EIS, Northern Corridor Alternatives 2 through 4 would include a new at-grade intersection with traffic signals at Cottonwood Springs Road (also known as Old Dump Road or Turkey Farm Road). Access to and continuity of the existing trail network would be maintained. Additional language clarifying how trail passages/crossings would be accommodated was added to Sections 3.15 and 3.17, and are consistent with the new design features and mitigation measures detailed in Section 2.2.9 of the EIS.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-227	<p>3.17.2.3 Direct and Indirect Impacts from Alternatives 2, 3, and 4</p> <p>Overall adverse impacts to visitor access from establishing the Northern Corridor would be minor in temporarily closing or altering existing designated trails. The establishment of the Northern Corridor may beneficially impact visitor access by providing more opportunities to access surrounding non-motorized and motorized trails and routes.</p> <p>Issue:</p> <p>1. Overall, the Northern Corridor would significantly decrease use of visitor access points by introducing sound and visual pollution into the experience.</p>	<p>Between the Draft and Final EIS, UDOT submitted a revised POD that included additional design features for the alternatives proposed across the Red Cliffs NCA, including language clarifying how trail passages/ crossings would be accommodated.</p> <p>UDOT would implement under-road passages for each of the existing recreational trails that cross the ROW as part of the design features detailed in Section 2.2.9 of the EIS. As a component of these under-road passages, access to and continuity of the existing trail network would be maintained and new access points along the Northern Corridor would not be established. As such, pedestrians or bicyclists would be able to travel along the corridor by using the trail system but would not be able to connect to other non-motorized routes within the Red Cliffs NCA. The language cited in the comment has been removed from Section 3.17 to reflect this update. Additionally, impacts to visitor experience are analyzed in Section 3.15 of the EIS. Noise and visual impacts are analyzed in Sections 3.23 and 3.13, respectively.</p>
H.65-228	<p>Under Alternatives 2, 3, and 4, limitations on future route and trail designations as a result of management decisions associated with Amendment Alternatives B and C and the Washington County HCP would have a generally reductive effect on visitor access. "Alternatives 2, 3, and 4 would be more restrictive to visitor access in proposed Zone 6 as compared to Alternatives 1, 5, or 6" (DEIS at 3-141).</p> <p>Issue</p> <p>2. Zone 6 access and experience is further compromised by the planned road penetrations that have not been addressed in the DEIS due to improper limitation of timeframe.</p>	<p>Additional analysis regarding potential cumulative impacts associated with the Western Corridor has been added to Section 3.28 of the EIS. Refer also to response to DATA-02.</p>
H.65-461	<p>TMP-NCH: Include a full and robust discussion of how the TMP and associated NEPA documentation may affect this NCH process. Addressed in DEIS: Not adequately addressed.</p>	<p>Section 1.1 of the EIS describes the relationship between BLM's consideration of the UDOT ROW application and the BLM's development of the Comprehensive Travel and Transportation Management Plan for the BLM SGFO.</p>

**0.3.6 Cultural Resources and Native American Concerns**

<b>Letter #- Comment # or Public Concern Statement #</b>	<b>Comment</b>	<b>Response</b>
A.21-22	<p>Although the DEIS contains a thorough analysis regarding cultural resources within the area of potential effects under Section 106 of the National Historic Preservation Act (NHPA), UDOT recommends the analysis of alternatives include a further discussion of the degree of direct and indirect effects to identified cultural resources, including whether those impacts constitute an “adverse effect” or “no adverse effect” for each alternative. UDOT believes the DEIS would benefit from additional discussion regarding the details of the cultural resources identified. As currently described, the analysis treats all impacts as equal, assuming that any cultural resource within the alternative alignments would be adversely affected to the same degree. Without information on the degree of impact and a finding of effect, it is not possible to meaningfully compare the alternatives in the DEIS. BLM and USFWS should consider additional discussion and clarification regarding the degree of impacts to cultural resources under each alternative, as well as use of the Section 106 process to resolve any concerns.</p>	<p>The EIS identifies both direct and indirect impacts to cultural resources for each alignment, using the criteria of adverse effect pursuant to 36 CFR 800, the implementing regulations of Section 106 of the National Historic Preservation Act (NHPA). The EIS identifies the number of cultural resources that may be directly and/or indirectly impacted for each alternative, but because specific design information is not available, the degree to which any particular cultural resource may be impacted cannot be determined at this time. However, because most of the identified cultural resources are eligible for the National Register of Historic Places (NRHP) under NRHP Criterion D (may contain data important in history or prehistory), impacts to cultural resources would be similar through direct physical alterations causing the loss of data. The analysis in Table 3.14-4 assumes that alternatives with National Register-eligible cultural resources present will result in a full adverse effect to those resources. Those alternatives with more resources will result in greater impacts than alternatives with less resources. Consultations with the Utah State Historic Preservation Officer (SHPO), Tribes, and interested parties will continue after the time that the EIS process is completed to resolve any adverse effects, should the BLM grant a ROW for the Northern Corridor through the NCA.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.25-59	<p>Additionally, because cultural or religiously significant resources have not been identified by previous investigations in Zone 6, that should be done before any further action is taken with regard to a Zone 6.</p>	<p>The actions analyzed in the EIS on BLM-administered lands within proposed Reserve Zone 6 include actions that BLM would take at the planning level that would provide additional protections for cultural resources or limited implementation level actions that do not have the potential to effect cultural resources pursuant to 36 CFR 800.3(a)(1).</p> <p>As described in Section 4.2.2 of the EIS, the USFWS will identify processes to resolve any adverse effects to historic properties (36 CFR 800.6), including development of an archaeological treatment plan when potential adverse effects have been determined, and potentially a programmatic agreement or other applicable compliance documents to resolve future but presently unknown effects of the USFWS’s issuance of an ITP to Washington County.</p> <p>Future federal actions within Zone 6 would be subject to the requirements of Section 106 of the NHPA and NEPA. Under NHPA Section 106, the USFWS’s authorization to regulate otherwise lawful activities approved by the State of Utah, Washington County, or the County’s political subdivisions is limited to the authorized activities in the ITP and conservation measures in the HCP that result in take of desert tortoises and may have the potential to cause effects on historic properties. The County’s list of covered activities identified in their HCP is not under the direct jurisdiction of the USFWS and therefore are not part of the undertaking for consideration by the USFWS (see USFWS HCP Handbook Appendix A).</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-173	<p>The DEIS discloses that there are 8 National Register Eligible Cultural Resources in the UDOT Application Alignment for the NCH.</p> <p>Issue: 1. BLM fails to discuss how they will mitigate adverse impacts of the NCH on NHPA resources identified in the DEIS analysis.</p>	<p>As described in Section 4.2.2 of the EIS, consultations with Utah SHPO, Tribes, and interested parties would continue after the EIS process is completed should the BLM grant a ROW for the Northern Corridor through the Red Cliffs NCA. Consultation will identify specific measures to avoid, minimize, or mitigate project impacts to the cultural resource sites affected by the final design of the roadway. UDOT would be responsible for developing a Cultural Resources Treatment Plan if the BLM were to grant a ROW.</p> <p>Determination of protocols to resolve adverse impacts to cultural resources will be addressed through appropriate Section 106 consultation and development of supporting documents.</p>
H.65-174	<p>Additionally, the DEIS notes: "a potential increase in access and visitation to heritage resources may lead to indirect impacts from vandalism" (DEIS page 3-123).</p> <p>Issue 2. BLM fails to discuss how it will prevent or mitigate increased vandalism.</p>	<p>The analysis contained in the EIS has been revised to incorporate new design features that have resulted in changes to the BLM's analysis cited in this comment. As described in Section 2.2.9 of the EIS, UDOT submitted a revised POD to the BLM between the Draft and Final EIS that included additional design features of the proposed action for environmental protection. Among those design features was clarification that the Northern Corridor and associated pedestrian hike and bike trail would not connect to the existing trails within the Red Cliffs NCA. Therefore, the Northern Corridor is not anticipated to provide new public access that could result in an increase in access and visitation to heritage resources. The EIS has been revised accordingly.</p> <p>Consultations with the Utah SHPO, Tribes, and interested parties would continue after the EIS process is completed should the BLM grant a ROW for the Northern Corridor through the Red Cliffs NCA. Consultation will identify measures to avoid minimize or mitigate project both direct and indirect impacts.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-175	<p>"Indirect" effects to historic properties are those caused by an undertaking that are later in time or farther removed in distance but are still reasonably foreseeable. Such adverse effects to historic properties under NHPA would constitute impacts to cultural resources under NEPA."</p> <p>Issue</p> <p>3. This raises a host of concerns about the NCH's long-term negative impacts on not just known heritage sites but also unknown sites. Thinking of reasonably foreseeable, cumulative effects such as from dust, noise, and vibration, and with much of the NCA yet to be formally surveyed, the impacts of the NCH could be devastating. All of the above issues are of extreme concern to Conserve Southwest Utah (CSU), which has developed a site steward program through Southern Utah National Conservation Lands Friends to steward heritage sites within the Red Cliffs NCA/DR. Over 40 volunteers engage in this ongoing effort to support BLM land managers and involve the community in preserving these unique, invaluable sites.</p>	<p>The EIS identifies the potential for both direct and indirect effects to historic properties for each alignment. Potential direct and indirect effects from dust, noise, and vibration are identified in Section 3.14.2. Consultations with the Utah SHPO, Tribes, and interested parties would continue after the EIS process is completed should the BLM grant a ROW for the Northern Corridor through the NCA. Consultation will identify measures to avoid, minimize, or mitigate project impacts.</p> <p>The BLM values the efforts of volunteer site stewards for the protection of the NCA and its values. The proposed actions analyzed in the EIS would not reduce opportunities for stewardship, education, or other community outreach within the Red Cliffs NCA.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-176	<p>The proposed RMP Amendments B and C would downzone the RMZ in order to provide a ROW for the NCH. Such a change would greatly alter the level of respect for and protection given to cultural resources. Alternative C would be more directly impactful than B; overall, both represent a grave threat to the proximal areas' cultural resources - the conservation, protection, and enhancement of which is one of the key purposes for designating the Red Cliffs NCA.</p> <p>For potential heritage resources found on non-federal ITP lands, we are encouraged to see mention of the collaborative compliance effort that will be developed between federal and other agencies, Native American tribes, and Washington County.</p> <p>Archaeologists in Washington County have documented Native American burials in (<i>Confidential information regarding specific cultural resource locations redacted pursuant to 43 CFR 7.18[a] and Section 304 of NHPA</i>). BLM must first consult with the Shivwits Band of the Paiute Indian Tribe of Utah, in addition to other Native American tribes with affiliation to the area, and then survey (<i>Confidential information regarding specific cultural resource locations redacted pursuant to 43 CFR 7.18[a] and Section 304 of NHPA</i>).</p>	<p>The potential impacts from the Recreation Management Zone (RMZ) boundary adjustments the BLM is considering in the EIS are misrepresented in the comment. The potential RMZ boundary changes would not alter cultural resources management or requirements for compliance with cultural resources laws and regulations. Furthermore, as described in Section 2.2.9 and Section 3.14 of the EIS, UDOT submitted a revised POD to the BLM between the Draft and Final EIS that included additional design features of the proposed action for environmental protection. Among those design features was clarification that the Northern Corridor and associated pedestrian hike and bike trail would not connect to the existing trails within the Red Cliffs NCA. Therefore, the Northern Corridor is not anticipated to provide new public access that could result in an increase in access and visitation to heritage resources.</p> <p>Consultation with Native American Tribes is ongoing, and the Shivwits Band of Paiutes have been invited to participate.</p>
H.65-220	<p>Unfortunately, the entire NCH process, which is not allowing for collaborative community input, undermines great effort to connect our community to stewardship, education, and appreciation of the NCA. More specifically, the Project would threaten efforts of SUNCLF's site steward program by illustrating BLM's disregard for protecting NHRP-eligible sites including an historic petroglyph panel in the ROW. Stewards volunteer their time to monitor sensitive cultural sites and guard heritage resources protected within the NCA, and their efforts are undermined by this project.</p>	<p>Consultations with the Utah SHPO, American Indian Tribes, and interested parties would continue after the EIS process is completed should the BLM grant a ROW for the Northern Corridor through the NCA. Consultation will identify measures to avoid, minimize, or mitigate project impacts.</p> <p>The BLM values the efforts of volunteer site stewards for the protection of the NCA and its values. The proposed actions analyzed in the EIS would not reduce opportunities for stewardship, education, or other community outreach within the Red Cliffs NCA.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-238	BLM carried out a Class III intensive survey of NCH routes inside the NCA. (DEIS at 3-119). However, the DEIS does not indicate that BLM consulted with the Shivwits Band of the Paiute Indian Tribe of Utah who claim cultural affiliation to this land. BLM failed to consult or conduct oral history interviews prior to the Class III surveys. This consultation could have resulted in more cultural resources being identified during the survey, perhaps even the "three previously recorded resources that could not be relocated during the field inventory" (DEIS at 3- 119).	As described in Section 4.2 of the EIS, consultation with Native American Tribes is ongoing, and the Shivwits Band of Paiutes have been invited to participate. These consultations have not identified any deficiencies in or additional recommendation for the methods that the BLM used to identify historic properties.
H.65-239	Section 106 review must occur prior to approving the designations of routes in the record of decision since the designation of routes in a RMP is an "undertaking," BLM's regulations indicate that formal designation of ORV routes occur not at the implementation level but with "[t]he approval of a resource management plan." 43 C.F.R. 8342.2(b); see also, Norton v. S. Utah Wilderness Alliance (SUWA), 542 U.S. 55, 69 n.4 (2004) (holding the "affirmative decision" to open or close a specific ORV route occurs through land use planning.) The SUWA Court's interpretation is consistent with national guidance from the Interior Department stating that "[p]roposed decisions to designate new routes or areas as open to OHV use. are subject to section 106 compliance" See BLM IM 2007-030. Therefore, it is clear that road and route designations made during the land use planning process are undertakings requiring review under Section 106 of the NHPA prior to approval of the RMPs.	The comment misrepresents BLM's OHV regulations and the actions considered in the EIS. The BLM is not considering making implementation-level route designations or altering existing OHV area designations in the EIS. The alternatives considered by the BLM for the potential SGFO do include criteria-based planning level actions that would influence the BLM's future implementation level designation and management of routes in proposed Reserve Zone 6, if an alternative that would establish Reserve Zone 6 is selected. The BLM's cultural resource inventory and Section 106 consultations for the actions considered in the EIS are described in Sections 3.14 and 4.3 of the EIS and are appropriate for the actions being considered by the BLM. OHV route evaluation and designation is being completed as part of the Comprehensive Travel and Transportation Management Plan for the BLM SGFO, which is currently being developed. The Travel and Transportation Management Plan will be reviewed as an undertaking pursuant to Section 106 of the NHPA and appropriate inventories will be completed to support the BLM's decision-making.

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-240	BLM should prioritize cultural resource inventories in the NCA to have the best information available for planning for and managing cultural resources. In accordance with NHPA, BLM must initiate and complete the Section 106 process during the NEPA review process and prior to the granting of ROWs located within Red Cliffs National Conservation Area BLM should not designate any ROWs without a proper cultural survey, involving consultation with Native American Tribes and Bands with strong affiliation to the land, along those ROWs.	As described in Section 3.14 of the EIS, cultural resources inventories have been completed for all alternatives contemplated in the EIS. BLM has consulted with the Utah SHPO on determinations of eligibility for all sites documented through the Class III level inventories and historic structures assessments conducted within the Areas of Potential Effect (APEs) that were defined for the Northern Corridor alternatives analyzed in the EIS. On August 26, 2020, BLM received concurrence from the Utah SHPO regarding BLM's determinations of eligibility, and with BLM's determination that the agency's identification efforts satisfy the Secretary of the Interior's Standards and Guidelines for the Identification of Archeological Resources and State agency compliance requirements under Utah Code Annotated 9-8-404. Consultations with the Utah SHPO, Tribes, and interested parties would continue after the EIS process is completed should the BLM grant a ROW for the Northern Corridor through the NCA. Consultation will identify specific measures to avoid, minimize, or mitigate project impacts to the cultural resource sites affected by the final design of the roadway. UDOT would be responsible for developing a Cultural Resources Treatment Plan if the BLM were to grant a ROW.
H.65-520	2. Impacts to TCP (traditional cultural properties) and heritage resources. Addressed in the DEIS: No. The DEIS notes the requirement of tribal participation in assessing potential concerns about/impacts of the NCH to Traditional Cultural Properties and cultural resources, as stated on page 3-121: "These concerns would be identified and resolved through appropriate levels of consultation required by law, regulations, and agency policies." The DEIS notes that a records search and BLM Class III survey were done to locate sites. Was the Shivwits Band of Paiutes included in the process of information gathering and analysis undertaken for the Affected Environment and Environmental Consequences sections? If yes, what input did the Shivwits Band have? If no, why not? Are there legal requirements that have not been met?	The Class III survey did not identify traditional cultural properties in the project Area of Potential Effect and there are no traditional cultural properties s on file with the Utah SHPO. Consultation with American Indian Tribes for the project is ongoing and includes outreach regarding resources important to Tribes other than just those on or eligible for listing in the NRHP. As described in Section 4.2 of the EIS, the Shivwits Band of Paiutes have been invited to participate in that consultation. To date, the Shivwits Band of the Paiutes have not identified any additional resources as potential traditional cultural properties.

Appendix O Responses to Public Comments on the Northern Corridor – Highway Right-of-Way, Issuance of an Incidental Take Permit Final EIS and Draft RMP Amendments

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-521	3. Impacts to TEK (traditional ecological knowledge). Addressed in the DEIS: No. What are potential impacts of the NCH on Traditional Ecological Knowledge? Has the Shivwits Band been invited to provide input about potential impacts to cultural plants traditionally important for providing food and medicine? Culturally important animals should also be evaluated, which face impacts from direct mortality, and habitat loss and fragmentation.	Consultation with American Indian Tribes for the project is ongoing and includes outreach regarding resources important to Tribes other than just those on or eligible for listing in the NRHP. As described in Section 4.2 of the EIS, the Shivwits Band of the Paiutes Indian Tribe of Utah have been invited to participate in that consultation. To date, the Shivwits Band of the Paiutes have not identified any concerns regarding traditional ecological knowledge or associated impacts.
H.65-522	4. BLM must consult with the Shivwits Band on these impacts as the NCH crosses their ancestral homelands. The Band should be given the opportunity, and provided compensation, for input (and ethnography) on the land and its resources. Addressed in the DEIS: Not adequately addressed. The Shivwits Band was one of 14 bands and tribes invited to participate in government-to-government consultation. However, the DEIS does not indicate that BLM consulted with the Shivwits Band who claim cultural affiliation to land in the Red Cliffs NCA. BLM failed to consult or conduct oral history interviews prior to the Class III surveys. This consultation could have resulted in more cultural resources being identified during the survey, perhaps even the "three previously recorded resources that could not be relocated during the field inventory" (DEIS at 3-119).	Consultation with American Indian Tribes for the project is ongoing and includes outreach regarding resources important to Tribes other than just those on or eligible for listing in the NRHP. As described in Section 4.2 of the EIS, the Shivwits Band of the Paiute Indian Tribe of Utah have been invited to participate in that consultation. On August 26, 2020, BLM received concurrence from the Utah SHPO regarding BLM's determinations of eligibility and with BLM's determination that the agency's identification efforts satisfy the Secretary of the Interior's Standards and Guidelines for the Identification of Archeological Resources and State agency compliance requirements under Utah Code Annotated 9-8-404.
H.65-523	5. Impacts to cultural plants that provide food and medicine, including but not limited to the following (common name, Southern Paiute name, Shivwits dialect used when available): <ul style="list-style-type: none"> <li>• Creosote (yatumb)</li> <li>• Indian rice grass</li> <li>• Indian tea (tu'tup)</li> <li>• Utah agave (yaant)</li> <li>• Engelmann prickly pear (Manav)</li> <li>• Seepwillow (Kanave)</li> <li>• Other willow and riparian species found in washes crossed by the NCH</li> <li>• Desert Sage</li> <li>• Yucca</li> <li>• Globemallow</li> </ul>	As described in Section 4.2 of the EIS, consultation with American Indian Tribes for the project is ongoing and includes outreach regarding resources important to Tribes other than just those on or eligible for listing in the NRHP. The Shivwits Band of the Paiute Indian Tribe of Utah have been invited to participate in that consultation. To date, the Shivwits Band of the Paiutes have not identified any concerns regarding the subjects raised in the comment.

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	<p>Addressed in the DEIS: No. The DEIS failed to address NCH impacts to important cultural plants to the Shivwits Band of the Paiute Indian Tribe of Utah.</p>	
H.65-524	<p>6. Impacts to cultural animals related to habitat fragmentation, loss and direct mortality</p> <ul style="list-style-type: none"> <li>• Tortoise (pika'aya)</li> <li>• Cultural history, knowledge and value pertaining to tortoise</li> <li>• Homed toad and lizard (mukaw'chuts and sixuupits)</li> <li>• Mule Deer (tuiits)</li> <li>• Roadrunner (aots)</li> <li>• Quail (karam)</li> <li>• Jack Rabbit and cottontail (kamunts and tavuts)</li> <li>• Hawk (kusuvi)</li> <li>• Golden Eagle and Bald Eagle (kwanants and pa'si)</li> <li>• Owl (muupits)</li> <li>• Fox and Coyote (ontsi'ats and sunangwavi)</li> <li>• Bat (pawchuts)</li> <li>• Chipmunk and squirrel (tavats and skuts)</li> </ul> <p>Addressed in the DEIS: No. The DEIS failed to address NCH impacts to important cultural animals, including the threatened Mojave desert tortoise, to the Shivwits Band of the Paiute Indian Tribe of Utah.</p>	Refer to response to H.65-523.
H.65-525	<p>7. There is a known petroglyph site in the NCH corridor northeast of <i>(Confidential information regarding specific cultural resource locations redacted pursuant to 43 CFR 7.18[a] and Section 304 of NHPA)</i>. There are likely other sites nearby. Addressed in the DEIS: Not adequately. The DEIS acknowledges the presence of a pre-historic petroglyph panel in the NCH alignment, but fails to provide information on how, or if, highway damage to this panel would be mitigated.</p>	Consultations with the Utah SHPO, Tribes, and interested parties would continue after the EIS process is completed should the BLM grant a ROW for the Northern Corridor through the Red Cliffs NCA. Consultation will identify measures to avoid, minimize, or mitigate project impacts.
H.65-526	<p>8. What will happen to this petroglyph panel? Conserve Southwest Utah has location details. Addressed in the DEIS: No. See above. This is incredibly concerning, because observations at this site are not limited to the petroglyph panel itself, but also include: <i>(Confidential information regarding specific cultural resource locations redacted pursuant to 43 CFR 7.18[a] and Section 304 of NHPA)</i>.</p>	Refer to response to H.65-525.

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-527	<p>1- The DEIS must include inventory of historical resources in the NCH alignment and any other alignments, including inventory of the "Pioneer engravings" in basalt rock (<i>Confidential information regarding specific cultural resource locations redacted pursuant to 43 CFR 7.18[a] and Section 304 of NHPA</i>).</p> <p>Addressed in the DEIS: No.</p>	<p>Cultural resources inventories have been completed for all alternatives analyzed in the EIS. The BLM has consulted with the Utah SHPO on determinations of eligibility for all sites documented through the Class III level inventories, and historic structures assessments conducted within the APEs that were defined for the Northern Corridor alternatives are analyzed in the EIS. On August 26, 2020, BLM received concurrence from the Utah SHPO regarding BLM's determinations of eligibility and with BLM's determination that the agency's identification efforts satisfy the Secretary of the Interior's Standards and Guidelines for the Identification of Archeological Resources and State agency compliance requirements under Utah Code Annotated 9-8-404.</p>

**0.3.7 Data and Analysis Methods**

Letter #- Comment # or Public Concern Statement #	Comment	Response
<b>DATA-01</b>	The EIS is insufficient because it does not include a thorough analysis of the environmental and socioeconomic impacts the highway will have on the residents of Washington County, and failed to show how the addition of new lands in Zone 6 could mitigate the damage.	The potential environmental and socioeconomic impacts of the Federal actions considered in the EIS are analyzed and described in Chapter 3 of the EIS. Where appropriate, the EIS describes the benefits that some resources would experience from the potential actions that could occur in proposed Reserve Zone 6. As described in the EIS, the BLM and USFWS are not required to fully mitigate the impacts that could occur as a result of each agency's decisions to be made in the EIS. While the actions within proposed Reserve Zone 6 described in the EIS would provide benefits to many of the same resources that would be impacted by the potential construction of the Northern Corridor across the Red Cliffs NCA (e.g., Mojave desert tortoise), these actions are not intended as and should not be implied to be mitigation of the potential impacts on the objects and values of the Red Cliffs NCA. Additional Northern Corridor design features and mitigation measures have been identified in the Final EIS to protect and conserve the NCA's values, including the addition of opportunities to enhance the NCA's educational values. Section 3.5.2.1 has been revised to describe the conservation benefits of proposed Zone 6. Refer also to response to NCA-03.

<b>Letter #- Comment # or Public Concern Statement #</b>	<b>Comment</b>	<b>Response</b>
<b>DATA-02</b>	<p>The Draft EIS cumulative impacts analysis only considers impacts from projects (roads, utilities) planned 15-20 years in the future. By limiting its attention to the next 15-20 years, the BLM ignores impacts from additional planned roads and infrastructure, including road projects planned in the 2019-2050 Draft Regional Transportation Plan.[2] The Western Corridor, extensions of Navajo Dr. and Green Valley Dr., and the Babylon Road are excluded due to the inappropriately short BLM planning horizon. These roads would further damage and fragment the Red Cliffs NCA and proposed Reserve Zone 6 and would make proposed Reserve Zone 6 even lower value as mitigation for the potential impacts of the Northern Corridor in the Red Cliffs NCA.</p>	<p>The BLM and USFWS have revised the cumulative impacts analysis contained in Section 3.28 of the EIS to include a longer planning horizon and incorporate additional projects in the DMPO’s Regional Transportation Plan, including the Western Corridor. The Navajo Drive improvements mentioned in the comment are not included in the DMPO’s final 2019-2050 Regional Transportation Plan; therefore, this road is not reasonably foreseeable and was not included in the analysis. Similarly, the Babylon Road is included in the 2019-2050 Regional Transportation Plan but is listed as an unfunded need; therefore, the agencies determined that completion of the road is speculative and have not included this road in the cumulative impacts analysis. Refer also to response to DATA-04.</p>
<b>DATA-03</b>	<p>The agencies have not included cost estimates for the Northern Corridor alternatives analyzed in the EIS and therefore the public cannot evaluate the cost to taxpayers resulting from each alternative.</p>	<p>The BLM has revised Section 2.2 of the EIS to include cost estimates for each Northern Corridor alternative that were developed in collaboration with appropriate engineering expertise from UDOT and other transportation agencies.</p>
<b>DATA-04</b>	<p>The resource values (e.g., Mojave desert tortoise habitats) within proposed Reserve Zone 6 have been compromised by historic and existing uses (e.g., OHV use and target shooting) and are not of the same quality as the resources within the Red Cliffs NCA and Reserve where the Northern Corridor alternative routes are proposed. The analysis contained in the EIS does not adequately demonstrate how the proposed management changes in proposed Reserve Zone 6 offset the potential impacts resulting from the construction of the Northern Corridor across the Red Cliffs NCA.</p>	<p>Refer to responses to DATA-01 and NCA-03.</p>

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Letter #- Comment # or Public Concern Statement #	Comment	Response
A.05-43	<p>Chapter 3 (general comment for clarity regarding Environmental Consequences)</p> <p>EIS Text: Table 3.1-1 identifies the resources that were evaluated and were determined to be either not present or not impacted by one or more of the Federal actions analyzed in this Draft EIS. Resources not present or not impacted are not addressed in the analysis for those actions indicated.</p> <p>Comment: It is not always clear in the text what set of actions is being evaluated for what resources. It is also not always clear which effects apply to different actions under review. The Environmental Consequences subchapters could be strengthened by including subheadings for each of the federal actions evaluated in the Draft EIS, so the effects of each component are clearly articulated. Furthermore, it is not always clear to which condition an alternative is being compared-whether to the baseline condition, the No Action alternative, or another action alternative. The Draft EIS should be revised to include more explicit language about the basis for comparing and evaluating the effects.</p>	<p>Comment noted. The commenter has not noted any specific analysis or area of confusion in the EIS. The BLM and USFWS have reviewed the analysis and use of headings throughout Chapter 3 of the EIS for clarity, making minor clarifications and revisions as appropriate.</p>
H.86-9	<p>Chapter 3 (general comment for clarity regarding Environmental Consequences)</p> <p>Table 3.1-1 identifies the resources that were evaluated and were determined to be either not present or not impacted by one or more of the Federal actions analyzed in this Draft EIS. Resources not present or not impacted are not addressed in the analysis for those actions indicated. However, the tables in 3-1 confuse the reader and are not always clear in the text what set of actions is being evaluated for what resources or how the resource is impacted from the proposed federal actions. The Environmental Consequences subchapters could be strengthened by including subheadings for each of the federal actions evaluated in the Draft EIS, so the effects of each component are clearly articulated. The State would suggest that the Draft EIS should be revised to include more explicit language about the basis for comparing and evaluating the effects.</p>	<p>Refer to response to A.05-43.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.05-44	<p>Chapter 3.1.1., p 3-1                      EIS Text: The size of the analysis area for each resource was determined by the locations where impacts on that resource could occur and therefore varies by resource. The four Federal actions and their geographic scope are as follows:                      Comment: It would be helpful to establish here a set of defined terms for use broadly in Chapter 3 for ease of referencing the analysis areas and subareas. Definitions that are introduced in the resource-specific analysis sections are difficult to follow and should be globally clarified. The defined terms for evaluating the analysis areas should be equally applied to include the direct and indirect benefits of the proposed Zone 6. This analysis should consider the potential reduction of impacts (or beneficial impacts) under ROW alternatives 2-4 which do not authorize the development of 3,300+ acres of nonfederal lands.</p>	<p>The EIS has been revised to ensure that the analysis area for each resource is defined in the resource section. As stated in the EIS, these areas vary by resource based on where impacts on that resource could occur.                      The potential environmental and socioeconomic impacts of the Federal actions considered in the EIS are analyzed and described in Chapter 3 of the EIS. Where appropriate, the EIS describes the benefits that some resources would experience from the potential actions that could occur in proposed Reserve Zone 6.</p>
A.05-45	<p>Chapter 3.1.1, p 3-1                      EIS Text: 2) The Red Cliffs NCA RMP Amendment may alter the management of a 600-footwide swath of BLM-administered lands surrounding Northern Corridor Alternatives 2, 3, and 4.                      Comment: It is not clear if this analysis area includes an additional 600 feet on either side of the 500-foot-wide ROW for each of the referenced Northern Corridor Alternatives, an additional 600 feet on one side for the ROW, an additional 50 feet on either side of the ROW (for a total corridor width of 600 feet), or an additional 100 feet on one side of the ROW. The Draft EIS should be revised to provide more clarity about the geographic extent of this analysis area.</p>	<p>EIS Section 3.1 has been clarified to state that the Northern Corridor alternatives would be centered on the 600-foot-wide swath of BLM-administered lands affected by the Red Cliffs NCA RMP Amendment alternatives.</p>
H.86-11	<p>Chapter 3.1.1, p 3-1                      This section notes that the Red Cliffs NCA RMP Amendment may alter the management of a 600-footwide swath of BLM-administered lands surrounding Northern Corridor Alternatives 2, 3, and 4. It is not clear if this analysis area includes an additional 600 feet on either side of the 500-foot-wide ROW for each of the referenced Northern Corridor Alternatives. Please clarify if the BLM is analyzing an additional 600 feet on one side of the ROW, or if BLM is analyzing only an additional 50 feet on either side of the ROW (for a total corridor width of 600 feet), or an additional 100 feet on one side of the ROW. The Draft EIS should be revised to provide more clarity about the geographic extent of this analysis area. A map with the analysis area may be helpful to include.</p>	<p>Refer to response to A.05-45.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.05-46	<p>Chapter 3.1.2, p 3-1                      EIS Text: Potential impacts are identified as direct or indirect effects and are described in terms of type, context, duration, and intensity, as generally defined here.                      Comment: The Draft EIS does not appear to contemplate the "direction" of the potential impacts under evaluation as either adverse or beneficial. The USFWS action, in particular, has alternatives with significant beneficial impacts on the environment that are often not explicitly acknowledged. The Draft EIS should be revised to acknowledge the direction of impacts, and the potential for beneficial impacts where they occur, both here in the analysis framework and throughout Chapter 3.</p>	<p>The comment does not identify a specific analysis that the commenter finds insufficient. The agencies' evaluation of the type and context of impacts incorporates an evaluation of whether these impacts are beneficial or adverse. Where appropriate, the EIS describes the benefits that some resources would experience from the potential actions that could occur in proposed Reserve Zone 6.</p>
A.05-47	<p>Chapter 3.1.2, p 3-1                      EIS Text: Intensity: Intensity describes the impact and its anticipated duration and context. Quantitative data are used to provide additional detail where possible.                      Comment: The explanation of "intensity" appears to be circular and redundant with other categories (i.e., context). The Draft EIS should be revised to clarify that this component involves concepts of anticipated "magnitude and duration" of the impact, rather than duration and context. Qualitative metrics for describing duration and magnitude, at least for conceptual purposes, would also be helpful here.</p>	<p>The explanation of intensity was revised to better align with the description of intensity from the Council on Environmental Quality's regulations implementing NEPA.</p>
A.05-49	<p>Chapter 3.1.2, p 3-5                      EIS Text: Impacts that would remain for the life of the project, which would be the 30-year term of the ROW grant and possibly longer if renewed, were considered permanent for analysis purposes.                      Comment: The description of the "duration" component to impacts does not explore what this concept means with respect to the RMP or ITP related actions. For consistency, the Draft EIS should be revised to acknowledge that impacts with a 30-year duration (including those impacts that are beneficial) associated with the RMP and ITP actions would also be considered permanent for analysis purposes.</p>	<p>While this section of the EIS did not acknowledge the duration of the impacts resulting from the potential RMP Amendments or ITP issuance evaluated in the EIS, the duration of impacts (including beneficial impacts) were appropriately analyzed throughout the EIS. For clarity, the sentence has been revised to note that impacts that would remain for the life of the project were considered permanent for analysis purposes, with examples provided of both the term of the ROW grant or duration of the ITP.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.05-50	<p>Chapter 3.1.2, p 3-5                      EIS Text: As described in Section 2.4, the USFWS is using best available information to evaluate the ROW alternatives and conservation options depending on the alternative selected.                      Comment: This statement suggests that the Draft EIS describes in Section 2.4 how the USFWS is using the best available science to evaluate the ROW alternatives and conservation options. However, Chapter 2.4 of the Draft EIS neither describes the USFWS's process for identifying the best available science nor describes how that best available science is used to evaluate the ROW alternatives and associated conservation measures. Instead, the cited chapter of the Draft EIS describes the content of the Amended HCP. It is also our understanding that data from more recent MDT surveys and Citizen Science observations have not been used in the Draft EIS. This data should be utilized or the EIS should provide clear justification as to why this data has been removed from the analysis. The Draft EIS should either strike this statement or correct the content reference. The Draft EIS should also provide more clear rationale for data used and rejected.</p>	<p>This section of the EIS has been revised to remove the reference to EIS Section 2.4 and clarify that the USFWS is using the best scientific and commercial data available to evaluate the Federal actions subject to USFWS review. Refer to responses to A.05-73 and A.05-11.</p>
11959-1	<p>A proposed addition (in Zone 6) to the Red Cliffs National Conservation area would not mitigate the damage caused by the Northern Corridor Highway. Zone 6 is in worse condition than Red Cliffs and is a heavily-recreated damaged area with many conflicting recreational uses. The Draft EIS fails to show how the noisy disruptive recreation in Zone 6 could mitigate for the loss of quiet, non-motorized recreation on trails in Red Cliffs. Also, since SITLA is required to make money from their lands, there is no assurance of permanent protection for their part of Zone 6.</p>	<p>Refer to responses to DATA-01, DATA-04, and 10827-9.</p>
A.21-1	<p>The DEIS should clarify the methodology used to assess impacts to Zone 6 to confirm that the DEIS (1) accounts for all of the indirect effects of activities and development that may occur on lands within proposed Zone 6 under the no action alternative and (2) does not understate the beneficial effects of establishing Zone 6.</p>	<p>The analysis methods and assumptions used for each resource are described within the specific resource section of the EIS. Both direct and indirect impacts are described for proposed Zone 6 under the No Action Alternative (Alternative 1) and the action alternatives. Where appropriate, the EIS describes the benefits that some resources would experience from the potential actions that could occur in proposed Reserve Zone 6, including under the No Action Alternative.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.21-4	<p>Selection of Alternative 3 would result in establishment of Reserve Zone 6, which would provide significant conservation benefits from additional management restrictions that would not exist under Alternatives 1, 5, or 6. By way of example, Zone 6 would: o protect and manage 6,760 acres of occupied MDT habitat; protect occupied and suitable habitat for three endangered and one threatened plant species: Dwarf bear-poppy, Holmgren (Paradox) milk-vetch, Shivwits milk-vetch, and Siler pincushion cactus; protect non-federal lands from future development and limit existing activities (including grazing, off-highway vehicle use, and competitive events), yielding associated direct and indirect beneficial effects; result in conservation measures that benefit other wildlife and special status species and associated habitat; protect wetlands, floodplains, and Waters of the U.S. (WOUS); protect and enhance native vegetation and habitat, and potentially reduce the spread of exotic invasive species; limit surface disturbances to protect water resources, potential cultural resources, sensitive soils and soil crusts, and potential unidentified fossil resources; reduce visual impacts from recreational and ground-disturbing activities; and preserve opportunities for certain recreational activities that would be lost if School and Institutional Trust Lands Administration (SITLA) lands were developed. In conjunction with establishing Zone 6 under Alternatives 2, 3, or 4, Washington County would retire approximately 3,338 acres of incidental take of MDT habitat that was previously authorized by USFWS and otherwise would be renewed as part of Washington County’s proposed action. The benefits from this retirement are separate from and in addition to the benefits of the management restrictions in Zone 6.</p> <p>DEIS, pp. 3-11, 3-15, 3-23, 3-32, 3-64, 3-72–73, 3-83, 3-86, 3-89, 3-93, 3-111, 3-123, 3-133.</p> <p>As set forth above, for many resources, the benefits of Zone 6 far exceed the adverse impacts from a Northern Corridor route. For example, while construction of the highway corridor under Alternative 3 would directly impact 204 acres of desert scrub vegetation, establishment of Zone 6 would protect 3,974 acres of desert scrub vegetation. DEIS, pp. 3-12–13. And while the Alternative 3 would impact 0.7 acres of WOUS1 and 1.5 acres of floodplains, establishment of Zone 6 would provide additional protections for 211.3 acres of wetlands, WOUS, and floodplains. DEIS, pp. 3-87–89.</p>	<p>Comment noted. The references to the analysis contained in the EIS regarding the potential benefits of establishing proposed Reserve Zone 6 are accurate. Regarding the comparison of the potential benefits to resources in proposed Reserve Zone 6 and their comparison to the potential impacts of issuing UDOT a ROW for the Northern Corridor, refer to responses to DATA-01, DATA-04, and NCA-03.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.38-6	<p>The DEIS fails to consider the conservation benefit of adding over 3,300 acres of previously private lands into the proposed Reserve Zone 6. The benefit of retiring a portion of lands where authorized take was once allowed should be counted as mitigation that fully offsets any relevant impact of expanding the ROW for the Northern Corridor Alternatives. The newly added lands will now avoid the direct and indirect effects of future development on more than 3,300 acres of non-federal lands in the proposed Reserve Zone 6 that supports the largest and most densely occupied population of Mojave Desert Tortoise on non-federal lands in Washington County. These impacts would be otherwise reauthorized with renewal of the ITP. The DEIS must acknowledge that thousands of acres are now being provided, as a counterpoise, to offset any potential habitat fragmentation from the new ROW.</p>	<p>The comment does not identify a specific resource or analysis where the agencies' analysis does not appropriately capture the benefits of establishing proposed Reserve Zone 6. Where appropriate, the EIS describes the beneficial effects that some resources would experience from the establishment and management of proposed Reserve Zone 6, including the incidental take of Mojave desert tortoise associated with 3,338 acres of tortoise habitat on non-Federal lands within proposed Reserve Zone 6 no longer a part of the County's ITP. To address the indirect benefits of proposed Zone 6, text to describe the conservation benefits of proposed Zone 6 to desert tortoises on adjacent lands has been added to the Final EIS in the SGFO RMP Amendment discussion in Section 3.5.2.1.</p> <p>Regarding the comparison of the potential benefits to resources in proposed Reserve Zone 6 and their comparison to the potential impacts of issuing UDOT a ROW for the Northern Corridor, refer to responses to DATA-01, DATA-04, and NCA-03.</p>
A.51-42	<p>16, 2-18, 2-19, 2.4.2.6 Text: "The funding would be enough to acquire three times the acreage of land within the proposed Northern Corridor." Comment: Acreage is only one factor in determining whether habitat is adequate to support a viable population of tortoises (or any other species). In addition to size, the shape and proximity to other habitats and connectivity are important (hence the fatal flaw with the Zone 6 satellite reserve). Also, good habitat quality that is free of stressors and threats (usually human-caused) is important. Based on the information given, the habitats that would be protected in the Zone 6 satellite reserve are not of equal quality to those being lost to the Northern Corridor within the actual Reserve, and the Applicants have failed to realize USFWS' mitigate to the maximum extent practicable.</p>	<p>The sentence referenced in this comment has been removed from the EIS. The referenced section (Section 2.4.2.6) does not address the quality of habitat in proposed Zone 6, but rather describes the establishment of proposed Zone 6 should the changed circumstance be triggered. The factors contributing to habitat quality that are assessed in the EIS are included in Section 3.5, Special Status Wildlife. Refer also to response to DATA-01.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
13818-1	<p>The EIS claim that Zone 6 can mitigate the damage caused by the NCH is a specious argument. While admitting the poor quality of many areas in Zone 6, the statement fails to address the need for rehabilitation. Zone 6 is a heavily-recreated and damaged area and cannot make up for the damage that the NCH will cause to the Red Cliffs National Conservation Area. We feel the Draft EIS consistently fails to address the damage caused to the Red Cliffs. The EIS does not address the stability of Zone 6 tortoise population.</p>	<p>The comment mischaracterizes the agencies' analysis of proposed Reserve Zone 6 completed in the EIS. Refer to responses to DATA-01 and DATA-04. If proposed Reserve Zone 6 were to be established by the Amended HCP by triggering changed circumstance, Washington County has committed to implementing certain conservation actions described in Section 2.4.2 of the EIS. Active rehabilitation is not one of the proposed conservation actions, though removal of conflicting uses from proposed Reserve Zone 6 will help improve habitat quality, as described in the EIS. Refer to responses to H.86-20, H.65-129, and H.65-133</p>
H.65-115	<p>However, the DEIS makes no attempt to disclose or analyze the effectiveness of restoration treatments over time in arid landscapes and if MDT habitat elements and integrity could effectively be restored. In regard to this first point, restoration in arid landscapes is notoriously difficult and probably will only get harder with the influence of climate change. Jones (2019) recently did a comprehensive literature review of restoration treatments in arid lands and found them mainly to be ineffective or deleterious. In regard to the second point, effective restoration also depends on the willingness of people to comply with new behavioral requirements and restrictions. Especially when it comes to modifying recreational habits, this too is notoriously difficult. Hence, the BLM must disclose and analyze the likelihood that restoration of impacted landscapes will substantially improve the condition of MDT habitat in the short and long term.</p>	<p>The analysis contained in the EIS has been revised to include additional information about restoration treatments that have been proposed as a result of the development of additional conservation measures between the Draft and Final EIS (Section 3.5.2.1). Refer to responses to H.65-129 and H.65-133.</p>

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H.65-287	<p>Issue</p> <p>2. Previous versions of the Dixie Metropolitan Planning Organization plans through 2050 have been publicly available and show planned roads in the proposed Zone 6. This source should have been used to determine cumulative effects. Table 3.28-1 should but does not list these planned road developments. They have significant impact on reasonably foreseeable future cumulative effects.</p> <p>3. It is divulged in several places in the DEIS that private in-holdings in Zone 3 could be developed in the future. Alternatives 2-4 route through or near these properties, enabling development access. The effects of these reasonably foreseeable future actions should be addressed in the DEIS, yet Table 2.28-1 does not list them.</p>	<p>Refer to responses to DATA-02 and H.65-111. The agencies are not aware of any reasonably foreseeable future developments planned on non-Federal lands in the Red Cliffs Desert Reserve and NCA. Note, Table 3.28-1 in the Draft EIS is now Table 3.28-2 in the Final EIS.</p>
H.65-294	<p>Alternatives 2, 3, 4, and 5 in addition to other reasonably foreseeable future land development and transportation projects, would contribute to the incremental loss of cultural resources in the cultural resources analysis area.</p> <p>Issue</p> <p>13. The DEIS should address the potential for development of private inholdings enabled by alternatives 2-4, and the damage to cultural resources that would ensue.</p>	<p>Refer to response to H.65-287.</p>
H.65-117	<p>The DEIS inappropriately relies on current conditions to express effects of past and present actions. The agencies erred when they relied on the current condition to express effects of past and present actions. DEIS at 3-178. Agencies can use this approach when past actions do not have effects that continue into the future. However, in this case, past projects (e.g., roads, urbanization) do have continuing effects ( e.g., see discussion on road effect zones in this document). This is especially true in the case of the MDT where lifespans are long, time to sexual maturity is long and connectivity requires multiple generations. The National Park Service explains this issue clearly in its NPS NEPA Handbook Supplemental Guidance (2015) at 5. ("Not all past actions need to be included in the cumulative impact analysis. Past actions should be included only when their impacts are ongoing.")</p>	<p>The comment cites guidance from a Federal agency not involved in the EIS process. The agencies have reviewed the analysis contained in the EIS and determined that the use of current conditions to express the effects of past and present actions to be appropriate because it does describe the ongoing effects of these past actions. For example, refer to the descriptions of ongoing tortoise mortality and habitat fragmentation from roadways described in Section 3.5 of the EIS.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-120	<p>The DEIS' list of projects does not include paving of the Babylon Road through Zone 4 where over 485 tortoises have been translocated since 1995; construction of the full Western Corridor (seven miles) and extensions of Navajo Dr. and Green Valley Dr. that would impact or fragment Zone 6; and possible improvements to Cottonwood Road. In addition, the cumulative effects analysis does not consider the impact of the 2020 fires that burned critical habitat (see 3.22 Fire and Fuels Management) and previous fires including the major fire in 2005.</p>	<p>Refer to responses to DATA-02 and FIRE-01.</p>
H.65-40	<p>The DEIS also fails to address the incremental impact of the NCH to MDT in addition to other past actions, including the following:</p> <ul style="list-style-type: none"> <li>• The cumulative impacts of past Utility Development Projects in the Red Cliffs NCA. The Draft HCP reveals that 50 acres of critical habitat inside the Reserve have been lost to covered activities in the duration of the 1995 HCP (Draft HCP at 57). However, it does not disclose the amount of MDT take associated with this loss or the indirect impacts that followed.</li> <li>• The DEIS failed to discuss the cumulative impacts associated with the expansion of Red Hills Parkway.</li> <li>• The DEIS failed to discuss the cumulative impacts associated with the Washington Parkway Extension.</li> <li>• The DEIS failed to discuss the cumulative impacts of the development of 5,700 acres of MDT habitat in incidental take areas. The Draft HCP states on pg. 71 that "Covered Activities in the Permit Area have caused the loss of approximately 5,700 acres or 46% of the 12,264 acres of incidental.</li> </ul>	<p>As described in Section 3.28 of the EIS, the impacts of the past and present actions contribute to the current condition and are captured through the description of the affected environment for that resource. The actions mentioned in the comment are addressed through the description of past and present action impacts on Mojave desert tortoise. An accounting of the amount of Mojave desert tortoise take associated with each of the actions is not relevant to the agencies' decisions to be made in the EIS. Refer also to response to H.65-117.</p>
A.30-4	<p>The preferred Alternative, Alternative Number 3, strikes a balance between fulfilling the northern corridor requirement of the OPLMA and preserving the environment in the Red Cliffs NCA. In addition, this alternative would trigger the inclusion of almost 3,500 acres of habitat in Area 6. Area 6 includes additional prime tortoise habitat and more than offsets the comparatively small amount of acreage that would be impacted by Alternative Number 3. The language of the Draft EIS falls far short in detailing the benefits of the addition of thousands of acres of prime tortoise habitat contained in the Area that will be preserved by the selection of Alternative Number 3.</p>	<p>Refer to response to A.38-6.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-9	<p>Importantly, there is one provision of SGFO Amendment Alternative B that is premature and inappropriate: Allow the reintroduction, relocation, translocation, and population augmentation of Mojave desert tortoise and other special status species into current or historic habitats in proposed Reserve Zone 6, in coordination with the USFWS, UDWR, and local governments, subject to guidance provided by BLM's 6840 policy and by existing or future Memorandum of Understanding. The DEIS notes at 3-49 that "additional years of survey data will be needed to validate Mojave desert tortoise density in proposed Zone 6." Until damaging uses are ended, habitat restoration occurs, and further research demonstrates that this area could support a long-term, viable population of MDT, translocations to Zone 6 should not be conducted.</p>	<p>The potential plan amendments considered by the BLM for proposed Reserve Zone 6 do not commit the BLM or any other partner to complete translocations, though they do allow the agency to consider translocations in the future, if appropriate. These potential future translocations would only be considered under appropriate conditions. Refer also to responses to A.17-1 and A.51-43.</p>
H.65-46	<p>The DEIS similarly fails to include even the most rudimentary information on the so-called ESA Section 6 parcels, including any enforceable agreements or commitments regarding subsequent management and use of these acquired lands. In the DEIS, BLM and the Service do not cite to, incorporate or provide any information on the executed grant agreements for these acquisitions, see DEIS 3-74; the Management Agreements between UDWR and the Service, see 16 U.S.C. § 1535(b); the Cooperative Agreements between the UDWR and the Service, see 16 U.S.C § 1535(c), 50 C.F.R. § 81.3, or the Project Agreement, 50 C.F.R. § 8 I.I(a)(2). In the absence of these documents - which also appear unavailable through routine internet search engines - the public is foreclosed from understanding the full impact of the alternatives on these Section 6 lands. The DEIS similarly fails to include basic information on the lands acquired through the LWCF that will be impacted by the NCH, including any project files, transaction or cases files, acquisition documents, LWCF funding proposals, or project funding requests.</p>	<p>Refer to response to H.65-13.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-101	<p>The DEIS is missing fundamental information and analysis related to the condition of the land and habitat in Zone 6. This information is important to evaluate the mitigation value of Zone 6. The DEIS' failure to disclose and analyze the information is a violation of NEPA. The DEIS is missing the following:</p> <ul style="list-style-type: none"> <li>• The DEIS discloses the land cover types in Zone 6 (DEIS at 3-7) but does not disclose, discuss or analyze the condition of the vegetation. For instance, is it significantly grazed? Is the vegetation damaged by excessive off-route recreation?</li> <li>• The DEIS does not disclose the condition of the range based on, for instance, required rangeland evaluations and monitoring pursuant to 43 CFR part 4100.</li> <li>• The DEIS indicates that the majority of Zone 6 has been open to mineral location and development but fails to disclose the number of acres that are committed in some way to possible future mineral development as well as the number of acres that have been impacted by past mineral development activities and may be in need of restoration. Mineral development activities cause long-term adverse impacts on MDT habitat, and restoration and revegetation efforts are slow. Minerals in this context include those that are fluid, saleable, leasable, and locatable.</li> <li>• The DEIS fails to consider the adverse impacts of high levels of recreation in Zone 6 in relation to the tortoise's life cycle. Zone 6 receives a high number of visits in spring and early summer when tortoises are emerging from brumation and females are nesting. Some of the competitive mountain bike races, like the True Grit Mountain Bike Race, are held in spring. Since the SGFO RMP Amendment B would allow competitive spotting events to continue, consideration should be given to moving these events to the tortoise inactive season.</li> </ul>	<p>Refer to response to NCA-03. The existing conditions of the resources located within proposed Reserve Zone 6 are described in the appropriate resource sections in Chapter 3 of the EIS. Livestock grazing, and OHV use are described in Sections 3.21, 3.15, and 3.17 of the EIS.</p> <p>As described in Section 3.7 of the EIS, there are no existing mineral leases or mining claims in proposed Reserve Zone 6.</p> <p>Regarding potential impacts of recreational events in Zone 6, the potential impacts of the decisions contained in Chapter 2 of the EIS are analyzed in Section 3.5 of the EIS. Refer also to response to A.51-66.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-102	<ul style="list-style-type: none"> <li>• The DEIS fails to disclose and analyze the impacts from competitive events that will be allowed to continue (and more possibly added) in Zone 6. The DEIS fails to describe the events (e.g., name, dates of occurrence, type, recurrence, permit area).</li> <li>• The DEIS fails to describe and analyze the environmental impacts to Zone 6 that will continue to occur until the SITLA lands are acquired and assigned a conservation management status.</li> <li>• The DEIS fails to describe and analyze how the high level of recreation in Zone 6, which is slated to continue albeit on a reduced system of designated routes, will affect the MDT in the short and long term.</li> <li>• The DEIS fails to describe and analyze how the BLM will assure that illegal use of Zone 6 lands, including dumping, long-term camping, and uncontrolled target shooting, will not continue and possibly expand. The DEIS mentions additional law enforcement and education activities (DEIS at 2-17, 2-19, and 3-64) but in no way shows that the additional capacity will be sufficient or effective and curbing illegal uses. The BLM has a long history of allowing unlawful uses to occur resulting in land damage both generally and specific to Zone 6.</li> </ul>	<p>Refer to responses to H.65-624 and H.85-626. As described throughout the EIS and Amended HCP, SITLA lands within proposed Reserve Zone 6 are anticipated to be permanently protected through long-term acquisition, and management of these lands by the BLM or another conservation entity should an alternative that establishes Zone 6 be selected by the BLM and USFWS. SITLA is anticipated to be a signatory to the Amended HCP Implementation Agreement and the SITLA lands would be managed by Washington County in conformance with the Amended HCP if Zone 6 is established. The potential impacts of ongoing recreation on Mojave desert tortoise in proposed Reserve Zone 6 are analyzed in Section 3.5 of the EIS. As described in the Amended HCP and Section 2.4.2.6 of the EIS, Washington County would provide additional funding for Washington County Sheriff Deputy patrols within the Reserve for the duration of the extended ITP term. Law enforcement will support Reserve integrity, help manage allowed uses of the Reserve, and minimize impacts on Mojave desert tortoise and ESA-listed plants within proposed Reserve Zone 6. Based on the past performance of similar strategies at the time the Reserve was established, the BLM and USFWS have reasons to believe the analysis contained in the EIS accurately describes the outcomes of this increased law enforcement presence.</p>

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H.65-103	<ul style="list-style-type: none"> <li>• The DEIS fails to disclose and analyze the poor connectivity/fragmentation conditions in Zone 6. For instance, the DEIS fails to consider impacts caused by the future Western Corridor which would prevent MDT movement between the UVRU and Northeastern Mojave Recovery Unit. It also fails to consider habitat fragmentation impacts caused by the future extensions of Navajo Dr. and Green Valley Dr. that travel from east to west across Zone 6. Finally, it fails to analyze the high level of habitat fragmentation of the 150-mile network of routes in Zone 6 and the even larger network of unauthorized routes.</li> <li>• The DEIS fails to consider the history of casual translocations to Zone 6. Washington County 2017 at 15. As Bloomington, Sunbrook and other neighborhoods on the western edge of St. George were built out, tortoises cleared from development were resettled in Zone 6. This pattern of resettlement could lead to inflated population estimates with high observations of MDT in transects conducted in the eastern portions of Zone 6 where tortoises were historically resettled. Population density estimates relying on data like this may not be reflective of the true number of MDT living in Zone 6.</li> <li>• The DEIS fails to consider that reducing available OHV routes in Zone 6 may likely lead to increased OHV activity and related fragmentation in the larger Green Valley AU including in Red Bluffs and Virgin River ACEC.</li> </ul> <p>We also note that DEIS at 3-46 list the habitat quality in the Green Valley AU as Good while the USFWS 2002a at 63 lists it as Moderate. The DEIS should disclose and evaluate whether the rating for the entire Green Valley AU would hold if we just looked at Zone 6, a small subset of the AU, and describe using Table 10 in the USFWS' Draft Biological Report how it reached its conclusion.</p>	<p>Refer to response to DATA-02. Section 3.5 of the EIS analyzes the potential impacts on Mojave desert tortoise resulting from the decisions to be made in this EIS. As described in the EIS, the BLM is completing an implementation-level Comprehensive Travel and Transportation Management Plan for the BLM SGFO. The BLM would analyze route specific impacts on relevant resources during the evaluation and designation of routes through this travel management planning process.</p> <p>The analysis contained in Section 3.5 of the EIS uses the best available information regarding tortoise density in proposed Reserve Zone 6. Section 3.15 of the EIS acknowledges that some OHV users are likely to seek out experiences on public lands further west of proposed Zone 6. OHV use in this area is currently limited to existing routes. It would be speculative to assume that OHV use would result in additional impacts. Refer also to response to A.51-64.</p> <p>Refer also to response to A.25-37.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-113	<ul style="list-style-type: none"> <li>Inadequate comparison of Zone 6 and 3 because the DEIS only looks at acres. The analysis of project-related direct effects to Mojave desert tortoise was based on calculating the number of acres of lost suitable habitat within the proposed ROW within the Reserve and the number of Mojave desert tortoises to be relocated from the proposed ROW and the acres of suitable habitat and MDTs within Zone 6. DEIS at 3-55. As discussed at length in a previous section, it is inadequate to look just at acres and MDT numbers. There are other important factors to consider including, but not limited to, patch size and configuration and connectivity between patches at multiple scales (Fonnan and Godron 1986; August et al. 2002; Groves et al. 2002; Fayrig 1997). In addition, looking at suitable acres using Nussear et al. (2009) is inappropriate since this model outputs potential habitat and not suitable habitat (i.e., does not consider land condition, anthropogenic activities, and connective value that affect suitability).</li> </ul>	<p>While the actions described in the EIS within proposed Reserve Zone 6 would provide benefits to many of the same resources that would be impacted by potential the construction of the Northern Corridor across Zone 3 (e.g., Mojave desert tortoise), these actions are not intended as and should not be implied to be mitigation of the potential impacts on the Reserve. In addition to the size of the area under consideration, the evaluation of proposed Zone 6 in Section 3.5 of the EIS considered acres of Mojave desert tortoise habitat with improved conservation status, and a qualitative review of beneficial management actions.</p>
H.65-119	<p>Beyond hand waving, the DEIS does not tell us (or give us any sense whatsoever) how much Zone 6 might offset the "long-term, cumulative impacts to Mojave desert tortoise" nor does it try to quantify or offer detail on how much habitat or how many tortoises have been and will be impacted by the many past, present and anticipated projects. It's not adequate for the DEIS as is the case here to declare that all the reasonably foreseeable projects related to urban development will take a toll on habitat but not to describe the degree of anticipated impacts and resultant pressure on MDT individuals and population dynamics. From this analysis there is no way to tell the incremental effect of this project. Given the importance of the Red Cliffs NCA and specifically the West and East Cottonwood A Us to the UVRRU and correspondingly the importance of the UVRRU to the MDT range, will this proposal have out-scaled and reverberating effects to the MDT critical habitat and populations range-wide? We cannot tell and nor can the deciding agencies with the information presented in this DEIS.</p>	<p>Refer to responses to NCA-03, H.86-20, and H.65-129. Potential impacts on Mojave desert tortoise are analyzed in Section 3.5 and cumulative effects on Mojave desert tortoise are described in Section 3.28.1.4 of the EIS.</p>

<b>Letter #- Comment # or Public Concern Statement #</b>	<b>Comment</b>	<b>Response</b>
H.65-121	<p>The DEIS provides very little information on the condition of the land within Zone 6. How much of the soil is disturbed and how much retains its biological crust? How pervasive is the human presence within Zone 6? How much (and where) of Zone 6 has the essential habitat elements for MDT? The use in Zone 6 has and continues to be so intensive that Zone 6 may not have the capacity - especially as climate change effects are more manifest - to provide adequate habitat for MDT or provide adequate mitigation for the NCH. The DEIS has failed to show how Alternatives B and C to the SGFO RMP amendment would result in substantially improved habitat or protections for the MDT.</p>	<p>Refer to response to NCA-03. Potential impacts on soil resources are analyzed in Section 3.7 of the EIS and potential impacts on Mojave desert tortoise are analyzed in Section 3.5 of the EIS. As outlined in the Council on Environmental Quality’s regulations implementing NEPA at 40 CFR 1502.15, “The environmental impact statement shall succinctly describe the environment of the area(s) to be affected or created by the alternatives under consideration. The descriptions shall be no longer than is necessary to understand the effects of the alternatives,” and, “Agencies shall avoid useless bulk in statements and shall concentrate effort and attention on important issues.” The agencies have reviewed the information contained in the EIS and determined that the level of information is appropriate to make a reasoned choice among alternatives.</p>
14053-1	<p>The DEIS analysis appears to use the Regional Transportation Plan developed by the Dixie Metropolitan Planning Organization to make the comparison models but the DEIS does not include the data used to justify the preferred conclusion. Even more important, the RTP envisions spending an estimated two billion dollars on transportation by 2050, with perhaps less than \$200,000 for the NCH. To compare that investment and its traffic results "No NCH and No other transportation spending" is the fundamental flaw in the DEIS". The DEIS needs to be amended and modified by comparing the NCH plus the additional projected spending with No NCH plus the additional investment.</p>	<p>Refer to response to DP-06. The comment misrepresents how the traffic models described in Appendix L and Appendix K in the EIS evaluated the No Action Alternative. The DMPO Travel Demand Model was used to determine travel demand on present (2019) and future (2050) transportation conditions assuming that the Northern Corridor is not built but all other transportation improvements as identified in the DMPO Regional Transportation Plan (DMPO 2019) have been implemented. The No Action Alternative reflects all the roadway and transit improvements in the DMPO Regional Transportation Plan (DMPO 2019) absent the Northern Corridor.</p>
15244-1	<p>Zone 6 area does not contain fertile habitat to support the endangered tortoise or they would already be there</p>	<p>An assessment of proposed Zone 6 habitat conditions and Mojave desert tortoise survey results are presented in Section 3.5 of the EIS.</p>

<b>Letter #- Comment # or Public Concern Statement #</b>	<b>Comment</b>	<b>Response</b>
13651-3	I understand that the County has also argued that the NCH would fall under a de minimis impact. A de minimis impact is one that will not adversely affect the activities, features, or attributes of the Section 4(f) property and that will have "no adverse effect" on historic sites. The RCNCA was set aside as mitigation of takes of the listed desert tortoise throughout the St George area. I believe the additional takes of desert tortoises, fragmentation of critical habitat, disruption of other species of concern, disruption of recreational opportunities, and possible disturbance of historic features easily qualify as adverse affects and would disqualify a de minimis finding. Feasible and prudent alternatives to the NCH have been identified in the DEIS. The NCH will clearly have impacts that will exceed de minimis standing. The Supplemental DEIS should include an analysis of Section 4(f) impacts.	Section 4(f) refers to the original section within the U.S. Department of Transportation Act of 1966. The law, now codified in 49 U.S.C. 303 and 23 U.S.C. 138, applies only to the U.S. Department of Transportation and is implemented by the FHWA (including state DOTs that have been delegated authority and assigned to carry out these regulations) and the Federal Transit Administration through 23 CFR 774. This EIS is not a Federal transportation project; therefore, Section 4(f) does not apply, and a Section 4(f) evaluation is not included in the EIS.
13651-4	Section 4(f) is a core value of the United States Department of Transportation (USDOT). This section of the USDOT Act of 1966 prohibits USDOT agencies from using land from publicly owned parks, recreation areas (including recreational trails), wildlife and waterfowl refuges, or public and private historic properties, unless there is no feasible and prudent alternative to that use and the action includes all possible planning to minimize harm to the property resulting from such a use. The Section clearly would apply to the Northern Corridor Highway (NCH). The DEIS makes no mention of the 4(f) requirements. While the BLM may not be bound by these requirements when making an administrative decision on rights-of-way and easements it is very likely that Title 23 funds will be used at some point in this controversial transportation project and 4(f) impacts should be discussed.	Refer to response to 13651-3.

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.25-43	We do not believe that evaluation of proposed Zone 6 and its Mojave desert tortoise habitat can be based on “improved conservation status, and a qualitative review of beneficial management actions” because those are yet-to-be-determined. The DEIS indicates that additional NEPA analysis would need to be done before a management plan is in place.	The BLM and USFWS have reviewed the analysis contained in the EIS and determined that the analysis is sufficient to support the decisions to be made by each agency in the EIS. Refer to response to H.86-20. The alternatives and analysis contained in the EIS do reference the future analysis for other independent actions such as the potential development of a Recreation Area Management Plan for proposed Reserve Zone 6 and completion of the Comprehensive Travel and Transportation Management Plan for the BLM SGFO. These separate implementation-level actions would undergo appropriate environmental review and analysis prior to the BLM undertaking these actions.

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.51-8	<p>As proposed, Zone 6 is inadequate as mitigation for the incidental take of the tortoise and development of tortoise habitat, for the following reasons.</p> <ul style="list-style-type: none"> <li>• Zone 6 is isolated from the actual Reserve. We found no management actions in the HCP that would provide an adequate corridor to connect and maintain this connection for the tortoise between Zone 6 and the actual Reserve.</li> <li>• Because of its apparent isolation from other known areas of desert tortoises and occupied tortoise habitat, it is too small to assure the long-term persistence of its isolated tortoise population from genetic, environment, and/or stochastic events, as human-caused climate change is exacerbating environmental stochastic events such as extreme or prolonged drought and increased frequency and size of fire.</li> <li>• Zone 6 has no data on the status of the tortoise throughout its boundaries or data on tortoise trend. Because tortoises are not uniform in distribution, we do not know if the sampling methods used to determine tortoise densities were statistically robust to accurately determined tortoise density throughout all lands within Zone 6.</li> <li>• We found no commitment of funding for the management and enhancement of tortoise habitat in perpetuity.</li> <li>• We understand there are plans for a highway (e.g., “Western Corridor”) to be built through or immediately adjacent to Zone 6, which will impair its function.</li> <li>• Management activities that would be allowed in Zone 6 include many that are not allowed in the Reserve and are not compatible with the long-term survival of the tortoise.</li> <li>• Local, regional, and rangewide losses of tortoises throughout the listed population, the past and recent impacts of fire, and the failure of the 1995 HCP to maintain stable, much less increasing tortoise populations within the Red Cliffs Desert Reserve, all warrant that the entire Red Bluffs ACEC be identified as part of Zone 6, even without development of the Northern Corridor through the Red Cliffs Desert Reserve. If the above concerns are sufficiently addressed in the 2020 HCP and Implementation Agreement, Zone 6 could be considered as part of an overall conservation plan for the Applicant’s requested incidental take of 66,301 acres of occupied and potential tortoise habitat, but not a mitigation measure to offset impacts of a new freeway through the primary Reserve.</li> </ul>	<p>Refer to responses to NCA-03, DP-02, A.25-43, H.86-20, and H.65-121.</p> <p>The USFWS is considering the factors identified in this comment in their review of the Amended HCP. For ITP renewals or amendments, the USFWS is required to update scientific information and to ensure that all statutory and regulatory requirements are met. The USFWS is required to show that the Amended HCP still meets ITP issuance criteria (2016 HCP Handbook, p. 17-6). The USFWS considers Section 10(a)(2)(A) of the ESA, its implementing regulations at 50 CFR 17.22 and 17.32, and the 2016 HCP Handbook as our most current regulations, policy, and standards for HCP and associated amendments. If the HCP submitted by the applicant meets issuance criteria and is statutorily complete, the USFWS shall issue the permit.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.51-30	<p>5 Comment: We were unable to find a table or other data that show the acreages of private versus BLM lands within the Reserve that would be affected by the three action alternatives. In our review of the maps in Appendix B, Map 3.13-2 is the first one with sufficient resolution to clearly show the extent of private versus public lands affected by the Northern Corridor alternatives 2, 3, and 4. We ask that Map 1.1-2 be added to the front of Appendix B that has similar or even greater resolution to the Visual Resource Management maps starting with Map 3.13 showing the four alternatives bisecting the Reserve relative to land ownership. It appears that as much as a quarter or a third of each alternative will occur on private lands with the balance on State and BLM lands. These acreages should be tabulated.</p>	<p>The maps in Appendix B of the EIS contain landownership information and depict the locations where the Northern Corridor alternatives cross Federal, State, and private lands. Section 3.26 of the EIS includes an analysis of potential impacts on State and private lands.</p>
A.51-31	<p>It is also not clear anywhere in the DEIS how Northern Corridor development within the Reserve will or will not result in growth-inducing development of private lands within the Reserve, which we ask be discussed in the Final EIS.</p>	<p>Refer to response to H.65-111.</p>
A.51-41	<p>15, 2-18, 2-19, 2.4.2.6 Text: “The funding would be enough to acquire three times the acreage of land within the proposed Northern Corridor.” Comment: As calculated below in Comment 232, we note that when the five variables are inserted in the DTMOG compensation formula, the multiplying factor equals 5.5, not 3, as implied by the above statement. We believe that development of any form of the Northern Corridor within the Reserve violates the mitigation of impacts of the HCP authorized over the past 24 years; that, after the development of 22,822 acres of tortoise habitats since 1996, proponents cannot now bisect the Reserve, which has functioned to offset those impacts. Even so, why have the HCP Partners opted to reference the DTMOG formula as if it has been used, then adopted a multiplying factor of 3, when it should be 5.5 according to the formula? Again, we believe this minimal-effort mentality may be one of the reasons HCP fees are being stockpiled rather than conscientiously spent to facilitate conservation within the Reserve.</p>	<p>The referenced sentence has been removed from the EIS. Refer to response to DP-04. Statements in Washington County’s Amended HCP are beyond the control of the Federal agencies.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.51-52	<p>29, 3-55, 3.5.2.1</p> <p>Text: “The issue of indirect effects because of habitat fragmentation was quantified using the number of acres of Mojave desert tortoise habitat located between each ROW alternative and the southern Reserve boundary, for which connectivity to the larger tortoise population may be impaired. [Then] Evaluation of proposed Zone 6 considered acres of Mojave desert tortoise habitat with improved conservation status, and a qualitative review of beneficial management actions.”</p> <p>Comment: We note that the BLM is not disclosing here that the foreseeable “Western Corridor” would bisect the Red Bluffs ACEC and border the western boundary of the proposed Zone 6 satellite reserve. Whereas, the description here lauds the “improved conservation status” and “beneficial management actions” of Zone 6 management, it fails to identify the same indirect effects that would result from the planned-for Western Corridor, which are likely similar to the indirect effects identified for the Northern Corridor within the Reserve. BLM cannot argue that the Western Corridor is an unrelated project, because it has intentionally excluded the western half of the Red Bluffs ACEC from the Zone 6 satellite reserve to accommodate that planned-for development. As given in Appendix A of our scoping comments on 1/6/2020, the Council contends that the rangewide loss of tortoises throughout the listed population, the past and recent impacts of fire (including the Turkey Farm Road and Cottonwood Trail fires), and the failure of the 1995 HCP to maintain stable, much less increasing tortoise populations within the Red Cliffs Desert Reserve, all warrant that the entire Red Bluffs ACEC be identified as the new Reserve, even without development of the Northern Corridor through the existing Reserve.</p>	<p>Refer to responses to DATA-02, FIRE-01, and A.51-91.</p>

Appendix O Responses to Public Comments on the Northern Corridor – Highway Right-of-Way, Issuance of an Incidental Take Permit Final EIS and Draft RMP Amendments

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.51-77	<p>51, 3-129, 3-180, 3.28, 3.28-1</p> <p>Comment: We note on page 3-129 that there have been five competitive mountain bike events in the Zone 6 area. However, it is not clear if these events will continue to be allowed or if BLM judges they are compatible with elevated conservation management for tortoises (particularly with regards to impacts by spectators). Since this issue has already been raised in Comments 41 and 42 above, we believe that the vague statement that there are “...45 permit applications for activities ... in various locations” (see page 3-180 in Table 3.28-1) needs to be clarified. We ask that all permitted motorized and nonmotorized routes in both the Red Cliffs Desert Reserve and proposed Zone 6 satellite reserve be mapped and further described as they affect the analysis, which should be added to the Final EIS.</p>	<p>Refer to responses to H.65-624 and H.65-626. A map of existing inventoried routes in proposed Reserve Zone 6 is included as Map 3.17-1 in Appendix B of the EIS. The BLM is completing route evaluation and designation as a part of the separate completion of the Comprehensive Travel and Transportation Management Plan for the BLM SGFO. Note, Table 3.28-1 in the Draft EIS is now Table 3.28-2 in the Final EIS.</p>
A.51-87	<p>62, 3-179, 3.28, 3.28-1</p> <p>Comment: We ask that BLM develop a new map in the Final EIS that shows the locations of each of the proposed developments and uses identified in the Cumulative Effects section in Table 3.28-1. We note, for example, that one of the projects is referred to as the “Western Corridor Connector,” but we cannot tell from the location information given in the table where this project would be developed, or if it would connect to the Western Corridor, which we understand would coincide with the western boundary of Zone 6. We also believe that this will reveal to naïve members of the public that the Washington Parkway terminates at the eastern boundary of the Reserve, and that, but for this Parkway, none of the action alternatives (2, 3, 4, and 5) could be developed, which supports our concern that regulatory agencies have already decided to develop the Northern Corridor, and this EIS process is a formality.</p>	<p>Refer to responses to DATA-02 and DP-07. The BLM and USFWS have reviewed the information contained in the cumulative impacts analysis and determined that it meets the requirements for analysis and public disclosure associated with this EIS. Note, Table 3.28-1 in the Draft EIS is now Table 3.28-2 in the Final EIS</p>
A.51-88	<p>63, 3-179, 3.28, 3.28-1</p> <p>Comment: The location of the DiVario Development, in particular, is important as it is revealed (for the first time in the DEIS on page 3-180) that this 730-acre development would be within the Zone 6 area, which we assume is in error? This development is identified in two places as bordering the Zone 6 satellite reserve (pages 3-187 and 3-188) but is described as being “within the northeastern border” in Table 3.28-1 on page 3-180, which we assume will be corrected in the Final EIS.</p>	<p>The DiVario development is located adjacent to, not within, proposed Reserve Zone 6. Table 3.28-2 in the EIS has been updated to correctly identify its location as noted.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-286	<p>Issue</p> <p>1. In general, this section does not describe and qualify the cumulative impacts of the alternatives as required, addresses only anticipated future impacts, incorrectly equates the impacts of all alternatives, and incorrectly assumes that private property within the NCA/Desert Reserve could be developed as a practical matter and that the impact of that would be much greater than any of the alternatives' impacts (private inholdings could not be practically developed without the access that would be granted by implementation of alternatives 2, 3 or 4). The impacts of past events combined with anticipated future events, for alternatives 2-4, would be significant and should be at least qualified if not quantified in the DEIS.</p>	<p>Refer to response to H.65-111. The cumulative effects analysis addresses and describes past, present, and reasonably foreseeable future actions consistent with the Council on Environmental Quality's NEPA regulations and BLM Handbook H-1790-1. Table 3.28-2 in the EIS identifies the only reasonably foreseeable future actions in the NCA are the Comprehensive Travel and Transportation Management Plan and the acquisition of inholding parcels.</p>
H.65-321	<p>"Planning for the Northern Corridor has been ongoing for two decades and has been led by the Dixie Metropolitan Planning Organization (DMPO), the governmental agency responsible for regional transportation planning in Washington County. The DMPO has conducted these efforts in coordination with the County, the City of St. George, Washington City, City of Ivins, City of Santa Clara, City of Hurricane, UDOT, and other communities in the St. George and Hurricane urbanized area."</p> <p>Issue</p> <p>3. None of these studies have engaged the community in dialog about appropriate solutions, and none have studied solutions outside the NCA. These planning activities have not been conducted in good faith.</p>	<p>Comment noted. The municipal transportation planning process is beyond the scope of the EIS. The EIS analyzes alternatives outside of the NCA as well as a range of other alignments within the NCA. As described in Section 2.7.1, Northern Corridor Highway Alternatives Considered but Eliminated, the agencies also considered other alternatives during the development of the EIS. Planning efforts, including the development of this EIS, have involved public engagement through public meetings, document reviews, and following the BLM and USFWS's public involvement requirements.</p>

Appendix O Responses to Public Comments on the Northern Corridor – Highway Right-of-Way, Issuance of an Incidental Take Permit Final EIS and Draft RMP Amendments

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-448	<p>Assess and analyze the cumulative and connecting projects (37)</p> <ul style="list-style-type: none"> <li>a. The Washington Parkway Extension;</li> <li>b. The 5 transportation projects associated with the NCH listed in the 2019- 2050 Regional Transportation Plan;</li> <li>c. The 6 transportation projects associated with Zone 6 listed in the 2019--2050 Regional Transportation Plan</li> <li>d. The widening of the proposed NCH from two to four or six lanes in the future</li> <li>e. Development on private, SITLA, or Washington County private inholdings adjacent to the proposed Northern Corridor Highway</li> <li>f. Construction of additional highway projects in the Red Cliffs NCA that would be served by construction of the Northern Corridor Highway 2. Integrated Analysis of the NCH's segments 2 and 3 (Washington Parkway Extension and NCH)</li> </ul> <p>Addressed in the DEIS: No.</p>	<p>Refer to responses to DATA-02, DP-07, and H.65-111.</p>
H.65-469	<p>1- The DEIS must address cumulative and residual NCH impacts to ecotone plant and animal species living at the historic edges of their ranges. (82). Addressed in the DEIS: No.</p>	<p>The potential impacts of the Federal actions analyzed in the EIS on biological resources is included in Sections 3.2 through 3.5 of the EIS.</p>
H.65-613	<p>1- Zone 6 Mitigation Uncertainty and Acknowledgement: In the DEIS, BLM must examine and discuss the scientific uncertainty related to Zone 6 functioning as effective mitigation for the Northern Corridor Highway. Furthermore, BLM must acknowledge and respond to questions and concerns expressed by the scientific community regarding Zone 6. (35) Addressed in DEIS: Not adequately addressed. The DEIS discloses that Zone 6 is a heavily-recreated and damaged area home to a population of MDT that has not yet been validate</p>	<p>Refer to response to DATA-04. The comment does not identify a specific disagreement with the analysis and conclusions presented in the EIS. Where appropriate, the EIS acknowledges scientific uncertainty associated with the information and analysis presented.</p>
H.65-616	<p>4- Zone 6 Mitigation Uncertainty: Disclose the scientific uncertainty related to Zone 6 functioning as effective mitigation for damage caused to Zone 3 (and the larger Reserve and Upper Virgin River Recovery Unit) by the Northern Corridor Highway. There is no scientific consensus regarding the effectiveness of Zone 6 mitigation. (33) Addressed in DEIS: Not adequately. The DEIS acknowledges that more years of survey are necessary in Zone 6 to validate the MDT survey results there, but fails to discuss how this uncertainty means that Zone 6 is inadequate mitigation.</p>	<p>Refer to response to H.65-613</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-620	<p>8- Zone 6 Permanent Protection: Describe how the SITLA lands in Zone 6 would be permanently protected as mitigation given SITLA's top fiduciary duty to optimize revenue for its beneficiaries and therefore the possibility that future lucrative development proposals could persuade or require SITLA to renege on its promise to allow full protection of these SITLA lands. In addition, what mitigation benefit may occur if the new HCP prohibits any incidental take on these SITLA Zone 6 lands? (34)</p> <p>Addressed in DEIS: No.</p>	<p>As described throughout the EIS and Amended HCP, SITLA lands within proposed Reserve Zone 6 are anticipated to be permanently protected through long-term acquisition, and management of these lands by the BLM or another conservation entity should an alternative that establishes Zone 6 be selected by BLM and USFWS. SITLA is anticipated to be a signatory to the Amended HCP Implementation Agreement and the SITLA lands would be managed in conformance with the Amended HCP if Zone 6 is established.</p> <p>Refer also to response to DATA-04.</p>
H.65-485	<p>12- Habitat Fragmentation: The USFWS must look specifically at questions that concern the cumulative effects of habitat fragmentation from constructing the NCH. In addition, the BLM needs to address two other questions through this same lens of habitat fragmentation. The first is to determine whether a trade of acreage on the opposite side of St George, the proposed Zone 6, will actually mitigate the effects of the NCH on the tortoise population in Zone 3. Second is whether the County and UDOT have sufficiently analyzed the available transportation alternatives that might remove the need to build a new highway through the RCNCA.</p> <p>Addressed in the DEIS: Not adequately addressed. The DEIS fails to show that Zone 6 will mitigate for damage caused by the NCH. The DEIS did analyze transportation alternatives located outside Red Cliffs and found that they do not adversely impact MDT in Red Cliffs and they do successfully reduce traffic congestion. However, the DEIS fails to disclose why these alternatives were not selected as preferred by the BLM.</p>	<p>Refer to responses to DATA-01, H.65-60, and DP-06. The analysis contained in Section 3.5 of the EIS considers the effects of habitat fragmentation on the species analyzed in the EIS.</p>
H.65-495	<p>2- Data, Analyses, Methods and Issue Resolution: BLM must provide the public with an explanation of both the data used in analyzing the potential effects of management alternatives and the methods used to conduct the analysis, as well as an opportunity to provide comments and propose corrections or improvements. (35).</p> <p>Addressed in the DEIS: No.</p>	<p>The data, methods, and resulting analyses to determine potential effects of the management alternatives have been included in the EIS and associated technical reports. The Draft EIS was made available for public review and comment in accordance with BLM Manual 1790-1 as described in Section 4.4 of the EIS.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-568	<p>1- Determine the cumulative impacts caused by future utilities (power, water, gas, and others) that could be constructed in the NCH ROW. What are cumulative impacts to the threatened Mojave desert tortoise, other special status wildlife and the 9 resource values protected in the NCA (26)                      Addressed in the DEIS: Not adequately addressed. The DEIS fails to address the cumulative impacts of potentially siting utilities in the NCH ROW to the MDT or any of the NCA's objects and values.</p>	<p>The EIS analyzes the potential impacts of all reasonably foreseeable future actions in the cumulative impacts analysis in Section 3.28 of the EIS. The indirect impacts of potential utility development resulting from the Red Cliffs NCA RMP amendments considered in the EIS are incorporated into the appropriate direct and indirect resource analyses in Chapter 3 of the EIS.</p>
H.65-611	<p>1- The DEIS must address future development demand in the Red Cliffs NCA/DR facilitated by the NCH and it must address the cumulative impacts of other large-scale projects in critical tortoise (and other vulnerable species) habitat. (100)                      Addressed in DEIS: Not adequately addressed. The DEIS provides a terse and incomplete table of future projects in Washington Co</p>	<p>Refer to responses to DATA-02 and H.65-111.</p>
H.65-614	<p>2- Major Zone 6 Inadequacies: The DEIS must consider how the NCH and proposed Zone 6 fails to mitigate for damage to original mitigation; fails to mitigate for damage to the 9 resource values protected in the Red Cliffs NCA; and fails to meet DTR0 criteria for Reserve design. It must address:                      a. Providing mitigation for damage caused to the original 62,000-acre mitigation that is the Red Cliffs Desert Reserve undermines the Washington County HCP. (143)                      b. Off-site mitigation in Zone 6 fails to mitigate for damage caused to the purposes of the Red Cliffs NCA, including its 9 statutorily-designated resource values.                      3. Zone 6 does not meet the Desert Tortoise Recovery Office Criteria for Reserve Design. (143)                      Addressed in DEIS: Not adequately addressed. The DEIS fails to discuss how Zone 6 could mitigate for damage caused to the Red Cliffs NCA's purpose, or how it could mitigate for damage to the RCDR, which is the original mitigation for the take authorized in the 1995 HCP.</p>	<p>Refer to responses to DATA-04, DP-04, and NCA-03.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-617	<p>5- Zone 6 Management Plan: Document how Washington County plans to honor its commitment to manage Zone 6 in the same manner that the other 5 Zones of the Red Cliffs Desert Reserve are managed, i.e., for protection and recovery of the threatened Mojave desert tortoise, and under management protocols for National Conservation Lands. For example, given the increasing recreational uses in Zone 6 and the likelihood of greater future management conflicts, how would the county be able to guarantee its ability to exert adequate management control to ensure protection for tortoises and their habitats? (33)</p> <p>Addressed in DEIS: Not adequately. The DEIS discusses amendments to the SGFO RMP that would reduce, but not eliminate, damaging recreational uses in Zone 6, but fails to discuss how these same uses would be curbed on SITLA lands until they are brought under federal ownership.</p>	Refer to responses to DATA-04 and H.65-102
H.65-631	<p>4- Adventure Park/Shooting Impacts: The DEIS must analyze the impacts of these associated developments on the efficacy of Zone 6 mitigation. (143)</p> <p>Addressed in DEIS: No</p>	Refer to response to DATA-04. The Adventure Park referenced in the comment is not located in proposed Reserve Zone 6.
H.86-1	<p>Ch1.3.2. p 1-3</p> <p>The BLM needs to incorporate by reference the NEPA analysis of the 1996 Environmental Impact Statement and Biological Opinion.</p>	The BLM and USFWS reviewed the referenced documents during the preparation of the EIS. These documents analyzed the 1995 HCP and were based on the biological and other resource information available at that time. The EIS uses the most recent data and information to analyze impacts on special status species and other resources in accordance with NEPA requirements.
H.65-628	<p>1- Impact of Planned Road Projects on Zone 6: The DEIS should analyze the impacts of multiple road projects listed in the DMPO's 2019-2050 Regional Transportation Plan that would fragment, impact, or increase traffic on roads in or adjacent to Zone 6.</p> <ul style="list-style-type: none"> <li>• The DEIS should disclose plans for future utility development in Zone 6</li> <li>• The DEIS should disclose plans for future co-location of utilities in the Western Corridor or extensions of Navajo and Green Valley Drive</li> <li>• Utility development should not be permitted in Zone 6 if added to the Reserve. (142)</li> </ul> <p>Addressed in DEIS: No</p>	Refer to response to DATA-02. The other potential actions described in the comment are speculative and not required to be analyzed in the cumulative impacts analysis because there are no existing proposals or plans that contain these actions. The potential SGFO RMP Amendments being considered by the BLM in proposed Reserve Zone 6 would limit or preclude future utility development.

<b>Letter #- Comment # or Public Concern Statement #</b>	<b>Comment</b>	<b>Response</b>
A.51-56	<p>33, 3-58, 3.5.2.1</p> <p>Text: “As part of the review process, the USFWS may determine that measures in addition to those proposed should be included to minimize and mitigate ROW and RMP revisions.”</p> <p>Comment: In addition to the four bullets following this statement, the Council continues to emphasize the inclusion of the entire Red Bluffs ACEC in the Zone 6 satellite reserve. We proposed this measure in our scoping comments (top of page 8 of Desert Tortoise Council 2020) but do not see any acknowledgement of this proposal in the DEIS (e.g., alternatives considered but rejected), and therefore consider the DEIS to be deficient in this respect, which must be addressed in the Final EIS.</p>	<p>The USFWS’ ability to impose additional measures on any Northern Corridor ROW that may be issued by the BLM would be limited to those reasonable and prudent measures identified through the Section 7 consultation process.</p> <p>Refer also to response A.51-70.</p>

**0.3.8 Decision Process**

<b>Letter #- Comment # or Public Concern Statement #</b>	<b>Comment</b>	<b>Response</b>
<b>DP-01</b>	<p>The BLM and USFWS are required by law to manage the Red Cliffs NCA and Red Cliffs Desert Reserve to ensure that the take (killing or harm) of a listed species will be minimized or mitigated by conserving the habitat upon which the species depend, thereby contributing to the recovery of the species as a whole. Protecting the Reserve functions as mitigation for the take of tortoises elsewhere in Washington County. It is wrong to violate that mitigation agreement by allowing the Northern Corridor to destroy a part of the Red Cliffs NCA and Reserve.</p>	<p>The Federal lands located in the Red Cliffs NCA are managed by the BLM under the 2016 Red Cliffs NCA Approved RMP, which was developed based on the management direction for the Red Cliffs NCA provided by Congress in OPLMA. Washington County manages the non-Federal lands within the Red Cliffs Desert Reserve using the Public Use Plan and overarching direction provided by the Washington County HCP. If the USFWS issues Washington County an ITP based on the Amended HCP submitted by Washington County, the Amended HCP would provide management direction for the non-Federal lands within the Red Cliffs Desert Reserve.</p> <p>The BLM has management authority on Federal lands within the NCA and may evaluate and approve discretionary uses or changes to the Approved RMP based on the agency’s NEPA and land use planning procedures, should the agency find such action appropriate. As described in the EIS, the BLM decision maker will evaluate discretionary uses within an NCA through the NEPA process and will analyze whether the impacts of the proposed use in the NCA are consistent with the protection of the area’s objects and values.</p> <p>The USFWS does not regulate land uses within the Red Cliffs NCA or Red Cliffs Desert Reserve, though the agency does have a role in reviewing actions that may impact threatened or endangered species, and in the implementation and administration of the Washington County HCP and ITP. The USFWS’ role in HCP implementation and administration would continue if an ITP is issued to Washington County. USFWS is reviewing the HCP submitted by Washington County to evaluate whether it includes all elements as required by ESA Section 10(a)(2)(A) and satisfies the issuance criteria for incidental take authorization that are outlined in Section 10(a)(2)(B). Refer also to response to NCA-01.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
DP-02	<p>The BLM and USFWS have previously denied or counseled against the Northern Corridor in the past. None of the facts on the ground have changed since those earlier rejections other than the political pressure. Furthermore, the Northern Corridor was discussed at the time the 1995 HCP was prepared and was intentionally not included in the 1995 HCP and associated design of the Red Cliffs Desert Reserve.</p>	<p>Two circumstances have changed since previous considerations of a highway across the Red Cliffs NCA. First, the BLM evaluates all applications for discretionary uses based on the contents of the application, as well as resource and social information and other circumstances that may warrant the BLM decision maker to determine that processing an application or amending an RMP is appropriate. Evaluating UDOT’s ROW application and potential amendments to the Red Cliffs NCA RMP would further the Department of the Interior’s policy goals from the Strategic Plan for Fiscal Years 2018-2022 to “enhance conservation stewardship whereby all levels of government and private landowners work cooperatively together in an atmosphere of mutual respect to achieve shared natural resource management goals across landscapes” and to “[develop] and [maintain] strong partnerships with State, local, and private stakeholders in shared conservation stewardship.”</p> <p>The BLM is responding to UDOT’s application for a ROW to construct the Northern Corridor across BLM-administered lands. The BLM decision maker will consider the BLM’s decisions to be made using the analysis contained in the EIS in accordance with the Federal Land Policy and Management Act (FLPMA), OPLMA, and relevant BLM policies and manuals. As outlined in BLM Manual 6220, the BLM decision maker will evaluate discretionary uses within an NCA through the NEPA process and will analyze whether the impacts of the proposed use in the NCA are consistent with the protection of the area’s objects and values. Refer also to response to NCA-01.</p> <p>Second, Washington County has submitted an Amended HCP to USFWS that includes provisions for Mojave desert tortoise conservation in the event that the BLM approves a ROW for the Northern Corridor across the Red Cliffs NCA and Red Cliffs Desert Reserve.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
DP-03	The Washington County HCP and ITP should have been renewed when it lapsed automatically. This renewal should not be part of the decision, renewal should come first.	<p>As required by law, the USFWS is reviewing the Amended HCP submitted by Washington County to evaluate whether it includes all elements as required by ESA Section 10(a)(2)(A) and satisfies the issuance criteria for incidental take authorization that are outlined in Section 10(a)(2)(B). Washington County applied for an ITP renewal on January 30, 2015 (30 days prior to the expiration of the ITP), but the Amended HCP had not been submitted to USFWS at the time the original ITP term expired.</p> <p>USFWS regulations at 50 CFR 13.22 allow a permit to remain in effect while USFWS considers a renewal request. The USFWS has allowed Washington County to continue to authorize incidental take of Mojave desert tortoise under the County's original ITP and HCP while the USFWS reviews the Amended HCP and considers whether it satisfies applicable statutory and regulatory requirements for USFWS to issue an ITP at the conclusion of this NEPA process.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
DP-04	<p>The Red Cliffs Desert Reserve was established in the 1995 HCP and associated ITP as a land base that would be set aside for Mojave desert tortoise conservation in perpetuity in exchange for the continued development of non-Federal lands outside the Reserve. The 1995 HCP did not contemplate the construction of a Northern Corridor. It is inappropriate and unlawful to allow the development of the Northern Corridor across portions of the Reserve that were set aside for long term tortoise conservation, as the construction of the highway would diminish the conservation value of these lands which are providing mitigation for development that has already occurred.</p>	<p>Washington County’s 1995 HCP and associated ITP did not address the construction of the Northern Corridor across the Reserve. The original ITP expired in 2016. The County submitted an Amended HCP, which the USFWS is reviewing to evaluate whether it includes all elements as required by ESA Section 10(a)(2)(A) and satisfies the issuance criteria for incidental take authorization that are outlined in Section 10(a)(2)(B).</p> <p>The Amended HCP includes a ‘changed circumstance’ for the Northern Corridor that impacts the conservation program, Red Cliffs Desert Reserve, and other conservation benefits that have been derived under the 1995 HCP. To issue a permit, USFWS is required to determine whether the Amended HCP meets ITP issuance criteria (USFWS and NMFS 2016, p. 17-6). USFWS considers Section 10(a)(2)(A) of the ESA and its implementing regulations at 50 CFR 17.22 and 17.32; and the 2016 HCP Handbook (USFWS and NMFS 2016) as the most current regulations, policy, and standards for HCP and associated amendments. These laws, regulations, and agency policy manuals do not preclude an applicant from amending the conservation program in an HCP and seeking a new ITP. If the HCP submitted by the applicant meets the issuance criteria and is statutorily complete, the USFWS shall issue the permit.</p>
DP-05	<p>The BLM and USFWS are required by law to manage the Red Cliffs Desert Reserve and Red Cliffs NCA to ensure that the take of listed species will be minimized or mitigated by conserving the habitat upon which the species depend, thereby contributing to the recovery of the species as a whole. Additionally, protecting the Reserve and NCA functions as mitigation for the take of tortoises elsewhere in Washington County.</p>	<p>Refer to responses to NCA-01, DP-02, and DP-04.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
DP-06	<p>The BLM and USFWS have failed to include a reasoning and methodology used to select the preferred alternative. CEQ NEPA regulations instruct the agency to "[i]dentify the agency's preferred alternative or alternatives, if one or more exists, in the draft statement and identify such alternative in the final statement unless another law prohibits the expression of such a preference. 50 C.F.R. § 1502.14(e).</p>	<p>The EIS indicates BLM's preferred alternative based on the analysis contained therein. The BLM and USFWS decision makers will consider the decisions to be made using the analysis contained in the EIS in accordance with FLPMA, OPLMA, the ESA, and relevant BLM and USFWS policies and manuals. The agencies' and the Council on Environmental Quality's NEPA regulations do not specify that an agency must provide an explanation for the preferred alternative identified in an EIS. The BLM was required to identify a preferred alternative for the land use planning decisions contained in the EIS based on the BLM's land use planning regulations at 43 CFR 1610.4 and BLM's Land Use Planning Handbook H-1601-1.</p> <p>The ROD(s) issued by the BLM and USFWS decision makers will include the rationale for the respective agency's decisions.</p>
DP-07	<p>The BLM and USFWS should evaluate UDOT's Washington Parkway Project from I-15 Exit 13 to Green Springs Drive as a connected action to the Northern Corridor.</p>	<p>Under the Council on Environmental Quality's NEPA regulations at 40 CFR 1508.25, actions are connected if they automatically trigger other actions that may require an EIS; cannot or will not proceed unless other actions are taken previously or simultaneously; or if the actions are interdependent parts of a larger action and depend upon the larger action for their justification. As described in the EIS, UDOT has already completed appropriate NEPA reviews for the Washington Parkway and roadway construction has been completed, indicating that the two projects are not connected actions as defined at 40 CFR 1508.25.</p> <p>As stated in Table 1.5-2, the concern regarding whether the Northern Corridor has been improperly segmented from the previously approved extension of the Washington Parkway was an issue considered for detailed analysis in this EIS. However, as noted in Table 1.5-2, the BLM determined the Washington Parkway has independent utility from the proposed Northern Corridor and is addressed under cumulative impacts as a separate reasonably foreseeable action.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.05-2	<p>The Draft EIS does not accurately describe the proposed action related to USFWS consideration of the County's Amended HCP and its application for ITP renewal. It is a critical point that the "take" subject to renewal has been previously evaluated under the National Environmental Policy Act (NEPA) and Section 7 of the Endangered Species Act (ESA), found to be consistent with the statutory issuance criteria for an ITP, and authorized by the USFWS. The Draft EIS should incorporate by reference these prior analyses and findings of the USFWS. The County has not requested new or additional take authorization. Furthermore, the USFWS has released for use all of the take contemplated in the 1995 HCP and authorized by the 1996 ITP in recognition of the completed actions of the County and the HCP Partners. The action under review is USFWS approval of the Amended HCP and the County's long-pending application to extend the term of the 1996 ITP.</p>	<p>For ITP renewals or amendments, the USFWS is required to update scientific information (using best available science) and consider new management strategies, where applicable, to ensure that all statutory and regulatory requirements are met. The USFWS is evaluating the HCP as a baseline condition including the Red Cliffs Desert Reserve and any conservation benefits that have been derived under the 1995 HCP and secondarily evaluating the entirety of the proposed project under the context of a changed circumstance addressing the Northern Corridor as it would impact the HCP Conservation Program. The USFWS considers Washington County's Amended HCP submitted for USFWS consideration to amend the 1995 HCP and, if warranted, will issue a new ITP in light of new information. New issuance of take is independent from previous evaluations but in consideration of previous take and compliance by the applicant. Any benefit derived under the previous HCP and consistent with the previous ITP is, by nature, included in this evaluation. The USFWS is required to show that the Amended HCP meets ITP issuance criteria. The USFWS considers Section 10(a)(2)(A) of the ESA, its implementing regulations at 50 CFR 17.22 and 17.32, and the 2016 HCP Handbook (USFWS and NMFS 2016) as the most current regulations, policy, and standards for HCP and associated amendments.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.35-2	<p>As described in the Amended HCP, the County completed all of its required conservation commitments during the stated term of the ITP issued in 1996 (Original ITP) but did not utilize all of the incidental take authorized and released by the USFWS.</p> <p>a. The County spent 170% of its required financial commitments toward implementing the HCP.</p> <p>b. The USFWS released to the County and its non-federal partners all of the incidental take authorized by the Original ITP, including the portion of the take subject to the incremental release provisions of the 1995 HCP.</p> <p>c. Only 26% of the authorized incidental take has been used through 2019.</p>	Refer to response to A.05-2.
A.35-3	<p>The County seeks and has applied for a renewal of its Original ITP to extend the duration in which its take authorization may be used.</p> <p>a. The Original ITP contemplated the potential for a future permit renewal (i.e., the issued permit signed by the USFWS Regional Director indicates it is a renewable permit),</p> <p>b. The County requested and filed an application for a permit renewal on January 30, 2015; more than 30 days prior to the expiration date of the Original ITP.</p> <p>c. The USFWS application form 3-200-56 (rev. October 2013) contains separate sections for applications that pertain to the issuance of new permits, renewals or amendments (with changes), and renewals (without changes). The County's application requested a renewal or re-issuance of an existing valid permit without changes.</p> <p>d. USFWS acknowledged the receipt of the County's renewal application on March 24, 2015 and determined that the ITP would remain valid pending a decision on the application.</p> <p>e. The Department of the Interior has separate regulations governing the approval of new permits, the renewal of existing permits, and the amendment of existing permits that further illustrate that these are distinct actions.</p>	Refer to response to A.05-2.

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.35-6	<p>For permit renewals, the HCP Handbook states: ".we should review the HCP to determine if changes are necessary. Revisions depend on how much of the originally covered activity has been completed, whether the mitigation has kept pace with impacts, or possibly if the status of covered species has changed" (HCP Handbook at 17–8).</p> <p>a. The Amended HCP demonstrates that not all of the authorized take was utilized, that the County's mitigation requirements have been completed and exceeded, and that the status of the MDT has not changed to an extent that would indicate jeopardy or adverse modification of critical habitat is likely.</p>	Refer to response to A.05-2.
A.35-7	<p>The changes proposed by the County in the Amended HCP are relatively minor in scope and substance and should only require limited or narrow review by USFWS to act on the renewal request.</p> <p>a. The HCP Handbook indicates that the scope analysis related to changes in HCP implementation depends on the extent to which "the proposed changed exceed the scope of what has already been analyzed and advertised to the public" (HCP Handbook at IT-6]. Here, the original analysis documents (the 1996 Environmental Impact Statement and Biological Opinion) evaluated the effects of full buildout of non-federal lands in Washington County and full use of the incidental take authorization.</p> <p>b. The Amended HCP does not change the amount or extent of authorized take; does not cover additional species; does not change the covered lands; and increases the funding and conservation commitments made by the County towards HCP implementation. Nothing in the Amended HCP decreases the mitigation measures committed by the County.</p> <p>i. The 1996 ITP expressly authorizes the take of up to 1,169 MTD on the 12,264 acres of designated "incidental take areas" outside of the Reserve, subject to the incremental release schedule, and it authorizes take "on all other non-Federal land in Washington County" inside the Upper Virgin River Recovery Unit.</p> <p>ii. The 1995 HCP in no way required clearance or counting of taken tortoises on the private land other than from the designated incidental take areas and over the years the HCAC developed, with USFWS, UDWR and BLM input and approval, clearance protocols that did not require tortoise clearance on lands that are not</p>	Refer to responses to A.05-2 and A.05-3.

Letter #- Comment # or Public Concern Statement #	Comment	Response
	<p>adjacent to the HCP. Despite these agreements, the County has continually made a good faith effort to clear all lands where there is reason to believe tortoises are located and to translocate these tortoises into the Reserve.</p> <p>iii. The updated information in the Amended HCP that provides the number of acres of potential habitat that remain to be developed in Washington County and the estimated number of tortoises on these acres is not a request for an increase of take.</p> <p>c. The record is clear that the County and the HCP Partners are authorized to develop all MDT habitat outside of the Reserve on non-federal lands.</p> <p>d. The Amended HCP does not propose increasing the amount or extent of authorized take, it only changes the means by which the take is measured.</p> <p>e. There is no reason to revisit prior analyses on the basic framework of the HCP. The HCP Handbook anticipates that ".the NEPA analysis for the amendment can be tiered off the NEPA analysis for the original permit (40 CFR 1502.201, or the original NEPA analysis can be incorporated by reference into the amendment's supporting documents (40 CFR 7502.211 (HCP Handbook at L7- 10).</p>	

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.05-3	<p>The Amended HCP describes the amount of take previously authorized in terms of a refined surrogate metric-an approach recommended recently by the Desert Tortoise Recovery Office for this and other HCPs for the Mojave desert tortoise. The refined surrogate addresses new information about the Mojave desert tortoise and the Amended HCP demonstrates consistency with 2015 regulations pertaining to the use of surrogate metrics. The adoption of this refined surrogate does not represent new, expanded, or additional take. The facts on the ground have not changed; only the methodology by which they are described. In no way does the new surrogate require re-review under the ITP issuance criteria (including the issuance criterion related to minimizing and mitigating the impacts of take to the maximum extent practicable). However, the Draft EIS mischaracterizes the application of the updated surrogate metric as new take (for example, see Chapter 2.4.2.2 of the Draft EIS).</p>	<p>Refer to response to A.05-2. The sentence referenced in the comment has been revised to clarify that the amount of desert tortoise habitat on non-Federal lands is analyzed and described differently than the 1995 HCP. A permit amendment and review of issuance criteria is necessary because the Amended HCP, with the addition of the Northern Corridor as a changed circumstance, will result in significant changes to the conservation program. Therefore, the USFWS must ensure that the Amended HCP submitted by Washington County is statutorily complete and meets the ITP issuance criteria. The USFWS agrees with the Amended HCP’s use of a surrogate metric to describe the take. Take requested for Covered Activities over the duration of the permit would be issued as per the analysis of the conservation program, with the changed circumstance of the Northern Corridor. Calculations are based on new updated habitat modeling that represents the best available science. USFWS recognizes that the take was analyzed and described differently in the 1996 permit based on best available science at the time.</p>
A.05-4	<p>The Draft EIS does not sufficiently capture an important distinction between establishment of the Reserve as a mitigation measure supporting the issuance of the ITP and the acquisition and long-term management of the Reserve (primarily federal agency commitments) as complimentary actions towards achieving the recovery-based biological goals and objectives of the 1995 HCP/Amended HCP. The Final EIS should make clear that the federal agency commitments specified in the 1995 HCP and carried forward into the Amended HCP are not relied upon for demonstrating satisfaction of the ITP issuance criteria, as they clearly are not part of the County’s commitments toward the proposed conservation plan. The County cannot commit federal agencies and, by the same token, cannot be made responsible for federal actions. Therefore, the Final EIS should clarify that the County is not at risk for non-compliance with the terms and conditions of its ITP for any failure of the federal agencies to fulfill their commitments towards the acquisition and long-term management of the Reserve.</p>	<p>Section 2.4.2.5 of the EIS has been updated to reflect that the acquisition and management of the Reserve is a responsibility of the HCP Partners.</p>

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Letter #- Comment # or Public Concern Statement #	Comment	Response
A.05-5	The Draft EIS does not consider the conservation benefit of retiring or relinquishing over 3,300 acres of previously authorized take associated with non-federal lands in the proposed Reserve Zone 6, separate and apart from other conservation actions pertaining to Zone 6. The benefit of retiring a portion of the authorized take is relevant to the Northern Corridor Alternatives that trigger the Zone 6 measures. If triggered, this benefit would avoid the direct and indirect effects of future development on more than 3,300 acres of non-federal lands in the proposed Reserve Zone 6 that supports the largest and most densely occupied population of MDT on non-federal lands in Washington County. These impacts would be otherwise reauthorized with renewal of the ITP.	Section 2.4.2.6 (Changed Circumstances, Take Authorization within Proposed Reserve Zone 6) of the EIS accurately explains the County’s commitment to no longer seek take authorization resulting from Covered Activities outside the Reserve on approximately 3,338 acres in proposed Reserve Zone 6. This action is accurately analyzed in the appropriate resource sections of the EIS.
A.38-5	The DEIS has failed to identify how the proposed action is complying with the BLM’s Compensatory Mitigation Policy (IM 2019-108). Similarly, the DEIS does not explain how the withdrawal of ESA Compensatory Mitigation Policy, 83 FR at 36470, has impacted the proposed action. The statement that additional mitigation measures may be necessary is inappropriate and should be removed from the DEIS. The DEIS must identify that the State and Washington County believe voluntary mitigation efforts, and not mandated efforts, limited by law and policy, is the direction that should be proposed in the DEIS.	Refer to response to A.05-9.
A.05-10	The Draft EIS does not acknowledge the applicability of the Data Quality Act, applicable guidance issued by the CEQ in April of 2019, and other policies or guidance specific to the Department of the Interior, USFWS, and BLM ensuring the quality, utility, objectivity, and integrity of information that is disseminated as relevant to federal agency decisions. The County encourages the BLM and USFWS to carefully consider the information relied on in the preparation of the Final EIS and other decision documents.	The EIS was developed by the BLM and USFWS in accordance with the Data Quality Act and all applicable Council on Environmental Quality guidance. For clarity, the Data Quality Act has been added to the list of Federal laws in Appendix C of the EIS.

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.05-14	<p>The County further notes that, as USFWS prepares its Biological Opinions on the separate actions of issuing a renewed ITP and granting the Northern Corridor ROW, it should use the new regulatory construct of "effects" of the actions. The terms "indirect," "interrelated," and "interdependent" are no longer applicable to ESA Section 7 consultation. Rather, the regulations adopted in 2019 create a two-part test for effects of the actions: the consequence at issue 1) would not occur but for the action under consideration, and 2) must be "reasonably certain to occur." 50 CFR 402.2. In addition, under 50 CFR 402.14(g), USFWS should give appropriate consideration to prior beneficial actions of the applicant (in this case, the County) involved in the consultation. In this case, the County has a 25-year history of fully complying with, and in fact exceeding, all of its obligations under the 1996 ITP and the 1995 HCP.</p>	<p>The BLM and USFWS will follow all applicable regulations in the completion of inter- and intra-agency Section 7 consultation, including preparation of Biological Assessments and Biological Opinions for the Federal actions considered in the EIS.</p>
A.38-8	<p>The DEIS Must Utilize the Most Recent Regulatory Definitions and Tests When Analyzing the Effects of the Action In 2019, the Section 7 Consultation definitions were updated. The regulation no longer utilizes the terms, "indirect", "interrelated" or "interdependent" when analyzing the effects of an action under the ESA. Instead, the regulation now has a two-part test to analyze the effects of any proposed action. The FWS must update the Biological Opinion and the DEIS to note that the Consultation is required now when the action 1) would not occur but for the action under consideration and 2) is reasonably certain to occur. 50 C.F.R. 402.2. The FWS must analyze the DEIS utilizing the most recent regulation and remove words and terms from a prior regulation.</p>	<p>Refer to response to A.05-14. The BLM and USFWS reviewed the use of terms in the EIS and determined that the current use is appropriate under each agency's NEPA requirements.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.05-23	<p>Chapter 2, p 2-1                      EIS Text: Section 2.6 presents combined alternatives for analysis in this Draft EIS that integrate the four interrelated and interdependent Federal actions.                      Comment: To be consistent with NEPA language, the phrase "interrelated and interdependent Federal actions" should be replaced by the phrase "connected actions." Similar statements should also be corrected at: Chapter 2.1, p2-1; and elsewhere.</p>	<p>Refer to response to H.65-49. The BLM and USFWS acknowledge that the Council on Environmental Quality's revision to the NEPA implementing regulations include new clarifications regarding connected actions and have carefully reviewed the nature of the interrelations and interdependencies of the Federal actions analyzed in the EIS.</p> <p>As described in Section 2.6 of the EIS, the Federal actions associated with the Northern Corridor, Red Cliffs NCA RMP Amendment, SGFO RMP Amendment, and Washington County HCP and ITP are interrelated, and some of the actions are interdependent. The USFWS's decision of whether to issue an ITP is determined by whether permit issuance criteria are met. If permit issuance criteria are met, USFWS could select the action alternative independent of any BLM decision. Therefore, the BLM and USFWS have determined that revisions to the EIS text are not required.</p>
A.05-9	<p>The Draft EIS contains statements that USFWS and BLM are considering additional mitigation measures, should they prove necessary. There is no statutory basis for seeking additional mitigation in connection with any of the contemplated federal actions. The County also notes that the Draft EIS does not acknowledge the applicability of the BLM Compensatory Mitigation Policy (IM 2019-108) or USFWS' express acknowledgment of significant and applicable discussion of the limitations on requirements for mitigation (see USFWS withdrawal of ESA Compensatory Mitigation Policy, 83 FR at 36470).</p>	<p>The BLM's use of the term "mitigation measures" in the EIS, including Section 2.2.9, does not imply that the agency is considering mitigation that would not be in conformance with BLM IM 2019-018. The BLM's use of the term "mitigation measures" in this section refers to the use of this term in the BLM's NEPA Handbook H-1790-1, which clarifies that "mitigation measures" are means, measures, or practices not incorporated into the proposed action or alternatives that could avoid or reduce adverse effects identified in BLM's analysis. Mitigation can include avoiding the impact altogether by not taking a certain action or parts of an action, minimizing impacts by limiting the degree or magnitude of the action and its implementation, rectifying the impact by repairing, rehabilitating, or restoring the affected environment, or reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action. For clarity, IM 2019-018 has been added to the list of Federal policies in Appendix C of the EIS.</p>

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Letter #- Comment # or Public Concern Statement #	Comment	Response
A.05-24	<p>Chapter 2.2.9, p 2-6</p> <p>EIS Text: The other type comprises measures that the BLM would apply to the ROW grant as terms and conditions or items that must be completed before the BLM would issue a NTP with construction. These measures are referred to as mitigation measures and terms and conditions.</p> <p>Comment: The Draft EIS contains statements that USFWS and BLM are considering additional mitigation measures, should they prove necessary. Additional explanation of the statutory basis for seeking additional mitigation in connection with any of the contemplated federal actions should be provided. The Draft EIS should be revised to acknowledge the applicability of the BLM Compensatory Mitigation Policy (IM 2019-108) and language by the USFWS in its withdrawal of the ESA Compensatory Mitigation Policy regarding constitutional limitations applicable to off-site mitigation (see 83 FR 36470). This comment also applies to similar statements at: Chapter 2.2.9.2, p2-6; and elsewhere.</p>	<p>As clarified in IM 2019-018, the BLM's mitigation policies do not affect mitigation that may be required by Federal laws other than FLPMA. Through the NEPA process, the BLM is considering what mitigation may be required to meet the BLM's statutory responsibilities for the management of the Red Cliffs NCA as outlined in OPLMA if a Northern Corridor route across the Red Cliffs NCA is selected.</p> <p>Additionally, between the Draft and Final EIS, UDOT has amended the POD submitted to the BLM. The BLM has clarified those measures that the BLM is considering to satisfy the agency's responsibilities for the management of the Red Cliffs NCA, as well as the measures included in UDOT's revised POD in the Final EIS. Refer to response to A.05-9.</p>
H.86-5	<p>Chapter 2.2.9, p 2-6</p> <p>The Draft EIS should be revised to acknowledge the applicability of the BLM Compensatory Mitigation Policy (IM 2019-108) and language by the USFWS in its withdrawal of the ESA Compensatory Mitigation Policy regarding constitutional limitations applicable to off-site mitigation (see 83 FR 36470).</p>	<p>Refer to response to A.05-9.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.05-27	<p>Chapter 2.4, p 2-11                      EIS Text: The USFWS will be reviewing the Draft Amended HCP and whether to issue an ITP is determined by whether permit issuance criteria contained in Section 10(a)(2)(B) of the ESA are met. If the following criteria are met and the HCP and supporting information are statutorily complete, the permit must be issued: 1) The taking will be incidental. 2) The applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking. 3) The applicant will ensure that adequate funding for the HCP and procedures to deal with unforeseen circumstances will be provided. 4) The taking will not appreciably reduce the likelihood of survival and recovery of the species in the wild. 5) The applicant will ensure that other measures that the USFWS may require as being necessary or appropriate will be provided. 6) The USFWS has received such other assurances as may be required that the HCP will be implemented.</p> <p>Comment: The language describing the ITP issuance criteria contained in Section 10(a)(2)(B) of the ESA is incorrect. The Draft EIS should be revised to quote the actual text of the ESA at Section 10(a)(2)(B) codified at 16 USC 1539, which reads: ". (i) the taking will be incidental; (ii) the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking; (iii) the applicant will ensure that adequate funding for the plan will be provided; (iv) the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild; and (v) the measures, if any, required under subparagraph (A) (iv) will be met; and he has received such other assurances as he may require that the plan will be implemented, the Secretary shall issue the permit."</p>	<p>Section 2.4 of the EIS was revised to quote the actual text of the ESA at Section 10(a)(2)(B).</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.05-28	<p>Chapter 2.4.1, p 2-11                      EIS Text: Washington County would not implement the Amended HCP, would cease implementing the 1995 HCP, and would not be authorized for any take of the Mojave desert tortoise.                      Comment: The Draft EIS omits an important aspect of the No Action alternative pertaining to the expiration of the ITP that is relevant to the analysis of effects. Under the No Action alternative, the County would lose most of its previously authorized take that was released for use by the USFWS in return for the completion (and exceedance) of all of its conservation commitments under the 1995 HCP. Therefore, the No Action alternative represents a loss of regulatory assurances associated with those completed conservation actions. In the No Action alternative, it is reasonable to expect that the USFWS would require new conservation measures to authorize again take that had previously been released for use under the Original ITP. Therefore, the No Action alternative has significant socioeconomic consequences associated with the expiration of benefits previously paid for and the likelihood of costly new exactions of mitigation for the same take. The Draft EIS should be revised to capture this aspect of the No Action alternative and its effects.</p>	<p>The USFWS previously authorized incidental take for a specific permit term (20 years) described in the 1995 ITP. It would be speculative as to how the County, or individuals who previously operated under the County's permit, would move forward to obtain incidental take coverage, if necessary, and what would be required under that process. Therefore, this is not described as part of the No Action Alternative in the EIS. Refer to response to A.05-2.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.05-29	<p>Chapter 2.4.1, p 2-12</p> <p>EIS Text: Lands not yet acquired for the Reserve would cease to be managed for the benefit of the Mojave desert tortoise. Some unacquired SITLA and private lands within the Reserve would likely be removed from their current protected status and developed, though these developments would be required to comply with the ESA.</p> <p>Comment: It is likely that at least some unacquired Reserve lands would become developed without the coordination and financial support provided by the implementation of the Washington County HCP. The language in the Draft EIS suggesting that these unacquired Reserve lands are in a "current protected status" is incorrect and should be corrected. While development of unacquired Reserve lands is a possibility under baseline conditions, this outcome becomes substantially more likely under the No Action alternative. The Draft EIS should be revised to evaluate the effects of additional development within Reserve Zone 3 as a consequence of the No Action alternative.</p>	<p>The sentences referenced in the comment have been revised to more clearly articulate the current status of non-Federal SITLA and private lands within the Reserve. The current non-Federal lands within the Reserve are occupied designated critical habitat for Mojave desert tortoise and take of Mojave desert tortoise for development purposes on these lands would not be covered under the existing 1995 HCP or Washington County's Amended HCP. Additionally, current zoning of these properties is not favorable for their development. Development of these lands would require the development of an area- or property-specific HCP and likely also rezoning and/or annexation of the lands. Aside from Washington County's potential support for zoning changes on these non-Federal lands, the other circumstances and requirements for development on these lands would not change under the No Action Alternative. In the 25 years since the 1995 HCP was implemented, there have been no area- or property-specific HCPs developed for these lands, and the HCP Partners' intent to acquire non-Federal lands established in the 1995 HCP remains and is ongoing. Ongoing acquisition of the non-Federal lands in the Reserve is proposed to continue in the Amended HCP. Therefore, the USFWS has determined that development on the non-Federal lands within the Reserve would be speculative under the No Action Alternative or any other action alternative and would not warrant analysis as a part of the No Action Alternative in the EIS.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.05-30	<p>Chapter 2.4.2, p 2-12                      EIS Text: Under the HCP and ITP action alternatives, the USFWS would issue Washington County an ITP authorizing incidental take of the Mojave desert tortoise-occupied or potential Mojave desert tortoise habitat as a result of otherwise lawful land use and development activities over a 25-year term.                      Comment: In addition to the errors in characterizing appropriately the nature of the permitting action (i.e., renewal vs issuance and reauthorize vs authorize), this statement also incorrectly suggests that the USFWS authorizes "take" of habitat. The USFWS in its discussion of the 2015 Surrogate Rule at 80 FR 26842, states: "The Services affirm that take of a surrogate is not, in and of itself, a violation of sections 9(a)(1)(B), (C), or (G) of the ESA. Any efforts to prosecute a violation of the take prohibitions would be based on applying the appropriate evidentiary standards to support either a civil or criminal action. A surrogate functions to provide a trigger for reinitiation of consultation under § 402.16(a). If the amount or extent of take is represented by a surrogate and the level of anticipated impact to that surrogate is exceeded, reinitiation may be required consistent with the terms of § 402.16. The availability of the take exemption afforded by the incidental take statement is governed by compliance with the reasonable and prudent measures and terms and conditions contained in the statement. Provided the holder of the incidental take statement is in compliance with all terms and conditions, the take exemption remains in place even if the extent of take as described by a surrogate is exceeded (16 U.S.C. 1536(0)(2); 50 CFR 402.14(i)(S)). However, if the extent of take is exceeded, the regulations require the action agency to immediately reinitiate consultation (50 CFR 402.14(i)(4))." The Draft EIS should be revised to correctly characterize the proposed federal action as the renewal of the ITP to extend the duration in which the previously authorized incidental take of MDT remains valid.</p>	<p>Section 2.4.2 of the EIS has been revised to clarify that USFWS would issue Washington County an ITP authorizing incidental take of the Mojave desert tortoise as a result of otherwise lawful land use and development activities. Refer also to responses to A.05-2 and A.05-3.</p>

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Letter #- Comment # or Public Concern Statement #	Comment	Response
A.05-31	<p>Chapter 2.4.2.1, p 2-13                      EIS Text: The County uses the fees collected to fund and carry out the commitments in the Amended HCP.                      Comment: This statement should be revised to clarify that the collected fees are used to carry out the County's commitments described in the Amended HCP. Other HCP Partners fund their commitments in different ways.</p>	<p>The EIS was edited to note that the County uses fees collected to carry out the County's commitments in the HCP.</p>
A.05-32	<p>Chapter 2.4.2.2, p 2-13                      EIS Text: The Plan Area and Permit Area proposed in the Amended HCP are nearly identical to those in the 1995 HCP, though the amount of desert tortoise habitat on non-Federal lands in the Permit Area in 2020 (approximately 66,301 acres) is more than what was known in 1995.                      Comment: The statement regarding the amount of "known" MDT habitat in the Permit Area is misleading. The 1995 HCP acknowledged that MDT may occur anywhere in the Permit Area, including areas not mapped as occupied or potential habitat at the time. The Amended HCP adopts an interpretation of potentially suitable habitat based on modeling that is vastly different in methodology and assumptions, such that the two estimates are not directly comparable. Here and elsewhere, the Draft EIS should avoid asserting that the Permit Area contains more habitat than in 1995.</p>	<p>Statement regarding the amount of Mojave desert tortoise habitat on non-Federal lands has been revised in Section 2.4.2.2.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.05-33	<p>Chapter 2.4.2.3, p 2-13                      EIS Text: The Amended HCP submitted by the County requests incidental take of the Mojave desert tortoise associated with the Covered Activities in an amount equivalent to the direct loss of up to 14,466 acres of occupied Mojave desert tortoise habitat and 51,835 acres of potential Mojave desert tortoise habitat within the Permit Area.                      Comment: The County is not making a request for incidental take authorization. Rather, it has requested a renewal of its previously issued ITP to continue to access previously authorized but unutilized take authorization that has been fully released for use by the USFWS as a result of the completed conservation actions of the County and the HCP Partners. The Draft EIS should be revised to read: With the Amended HCP, the County requests a renewal of its Original ITP to extend the duration in which the County may continue to access previously authorized, but unrealized, incidental take in an amount equivalent to the direct loss of up to 14,466 acres of occupied Mojave desert tortoise habitat and 51,835 acres of potential Mojave desert tortoise habitat within the Permit Area."</p>	<p>Section 2.4.2 of the EIS has been revised to clarify how the USFWS is reviewing the Amended HCP submitted by Washington County. The Amended HCP is part of the County's application to renew and amend the previous ITP for the specific amount of incidental take associated with Covered Activities described. Therefore, the USFWS believes the original text in the Draft EIS is appropriate. Refer also to response to A.05-2.</p>
A.05-34	<p>Chapter 2.4.2.4, p 2-14                      EIS Text: The Covered Activities, whether inside or outside of the Reserve, are subject to the following criteria....Must be otherwise lawful and conducted in accordance with all applicable local, State, and Federal laws, regulations, ordinances, and policy. Effects of the activities have been analyzed in the Amended HCP.                      Comment: Two bullet points in this statement differ somewhat from the content of the Amended HCP. The Draft EIS should be revised to use the language from the Amended HCP for each of these bullet points. Must be otherwise lawful and conducted in accordance with all applicable local, state, and federal laws, regulations, ordinances, and permissions. Effects of the activities have been analyzed in the 1995 HCP or the Amended HCP. As previously mentioned, compliance with " policy" is not a requirement of law and the prior analysis for the issuance of the Original ITP and authorization of take is relevant to the renewal under consideration. In addition, this chapter of the Draft EIS is a summary of the content of the Amended HCP and should be accurate in that regard.</p>	<p>The language in the EIS has been modified as requested, though the USFWS has also included additional information about the USFWS' requirements to follow policy. For an ITP renewal or amendment, the USFWS determines whether the Amended HCP still meets ITP issuance criteria (USFWS and NMFS 2016, p. 17-6). USFWS considers Section 10(a)(2)(A) of the ESA and its implementing regulations at 50 CFR 17.22 and 17.32 and the 2016 HCP Handbook (USFWS and NMFS 2016) to be the most current regulations, policy, and standards for reviewing HCPs and associated amendments. Regarding prior analysis for the issuance of the original ITP, refer to response to A.05-1.</p>

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A.05-35	<p>Chapter 2.4.2.4, p 2-14  EIS Text: The ITP issued by the USFWS would allow for incidental take of Mojave desert tortoise resulting from otherwise lawful, non-Federal activities outside the Reserve, including the following:  Comment: The Draft EIS includes a bulleted list of the types of actions included in the set of Covered Activities outside the Reserve. However, this list fails to include as an example "Recreation events" that is identified in Table 2 of the Amended HCP. The Draft EIS should be revised to include "Recreation events" in this bulleted list.</p>	<p>The list of Covered Activities outside the Reserve has been edited to include recreation events.</p>
A.05-36	<p>Chapter 2.4.2.4, p 2-15  EIS Text: The ITP issued by the USFWS would allow for incidental take of Mojave desert tortoise resulting from a specific list of otherwise lawful, non-Federal activities inside the Reserve performed in accordance with the applicable protocols, other measures specified in the conservation program of the Amended HCP or long-term management guidance (e.g., the applicable BLM RMP).  Comment: This statement in the Draft EIS suggests that Covered Activities inside the Reserve are subject to "long-term management guidance (e.g., the applicable BLM RMP)." This is not correct as Covered Activities are limited to non-federal lands where the BLM RMPs do not apply. The Draft EIS should be revised to strike "or long-term management guidance (e.g., the applicable BLM RMP)" from this statement. This comment also applies to similar language in: Chapter 2.4.2.6, p2- 19; and elsewhere.</p>	<p>The EIS has been edited for clarity by removing the statements regarding long-term management guidance and the applicable BLM RMP as suggested.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.05-37	<p>Chapter 2.4.2.5, p 2-16                      EIS Text: The Amended HCP contains Mojave desert tortoise conservation measures that would be implemented by Washington County or the HCP Partners to minimize and mitigate the impacts of the taking of Mojave desert tortoise that would be authorized under the ITP or to further the biological goals and objectives of the Amended HCP. The Mojave desert tortoise conservation measures contained in the Amended HCP are very similar to those contained in the 1995 HCP and include the ongoing acquisition and management of the Reserve (created by the 1995 HCP), other actions to minimize and mitigate impacts of the take, and adaptive management and monitoring.</p> <p>Comment: This paragraph does not accurately describe the context of the conservation measures carried forward into the Amended HCP and incorrectly implies that the County is responsible for "ongoing acquisition and management of the Reserve." The Draft EIS should replace this paragraph with language that more closely follows the Amended HCP: "The Washington County HCP serves dual functions: 1) supporting the County's ITP authorizing take of the MDT associated with Covered Activities; and 2) coordinating actions by other HCP Partners that are intended to further the recovery of the MDT in the UVRU. The Amended HCP restates the conservation measures identified in the 1995 HCP that contribute to meeting the recovery-based biological goals and objectives of the Washington County HCP and provide guidance to the HCP Partners responsible for the long-term management and monitoring of the Reserve. The County also identifies the specific actions that it commits to implement during the Renewed/Amended ITP Term, in part with funding provided by the Municipal Partners. However, the County has met or exceeded its specified responsibilities for addressing the impacts of the previously authorized incidental take and that these new commitments are above and beyond the actions required of it to minimize and mitigate the impacts of the reauthorized incidental take. The County may rely on the No Surprises assurances afforded to it by the good-faith completion of its identified responsibilities under the 1995 HCP."</p>	<p>The proposed language has been incorporated in the EIS, with the exception of the last two sentences. The County is required to implement the measures outlined in the HCP, including those committed to in the Changed Circumstances Section. No Surprises assurances applies only to the duration of the existing permit (USFWS and NMFS 2016, p. 12-10); the 1996 ITP expired in 2016. Once amendments associated with the permit are finalized, No Surprises assurances that are described in USFWS regulations (63 <i>Federal Register</i> 8859, February 23, 1998) would apply to the Amended HCP and ITP for the duration of the permit because the Amended HCP contains enumerated changed circumstances.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.35-8	<p>The County should continue to receive the benefits of No Surprises assurances for its complete implementation of the terms and conditions of the Original ITP across the requested renewal of the permit term.</p> <p>a. The No Surprises policy and subsequent regulations made abundantly clear that "a deal is a deal." This is the context in which Washington County negotiated the 1995 HCP and agreed to the terms and conditions of the original ITP. Having lived up to its side of the deal, the County expects the same from USFWS.</p> <p>b. The County does not believe that the Original ITP has expired. Instead, the renewal regulations at 50 CFR 13.22 suspend that expiration until action on the renewal application is complete.</p> <p>c. The HCP Handbook notes that the USFWS "cannot renew, amend, or transfer a permit where there are compliance deficiencies" (HCP Handbook at 17-6). The County has demonstrated that there are no such deficiencies in the discharge of its obligations under the Original ITP.</p>	<p>No Surprises assurances applies only to the duration of the existing permit (USFWS and NMFS 2016, p. 12-10); the 1996 ITP expired in 2016. Once amendments associated with the permit are finalized, No Surprises assurances that are described in USFWS regulations (63 Federal Register 8859, February 23, 1998) would apply to the Amended HCP and ITP for the duration of the permit as long as written into the HCP.</p> <p>USFWS regulations at 50 CFR 13.22 allow a permit to remain in effect while USFWS considers a renewal request. USFWS has allowed Washington County to continue to authorize incidental take of Mojave desert tortoise under the County's original ITP and HCP while the USFWS reviews the Amended HCP and considers whether it satisfies applicable statutory and regulatory requirements for USFWS to issue an ITP at the conclusion of this NEPA process. Refer also to response to A.05-2.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.05-38	<p>Chapter 2.4.2.5, p 2-16                      EIS Text: The acquisition and management of the Reserve is the primary conservation measure of the 1995 HCP.                      Comment: The Draft EIS fails to capture an important distinction between establishment of the Reserve as a mitigation measure under the 1995 HCP and Amended HCP (an action supporting the issuance of the ITP) and the acquisition and long-term management of the Reserve as complimentary federal actions towards achieving the recovery-based biological goals and objectives of the 1995 HCP/Amended HCP. The EIS should make clear that the federal agency commitments specified in the 1995 HCP and carried forward into the Amended HCP are not relied upon for demonstrating satisfaction of the ITP issuance criteria, as they clearly are not part of the applicant's proposed conservation plan. The applicant cannot commit federal agencies and, by the same token, cannot be made responsible for their actions. Therefore, the EIS should clarify that the County is not at risk for non-compliance with the terms and conditions of its ITP for any failure of the federal agencies to fulfill their commitments towards the acquisition and long-term management of the Reserve. This comment applies generally to discussions about the Reserve in Chapter 2.4.2.5 and elsewhere.</p>	<p>The Amended HCP states “The establishment of the Reserve is the primary conservation measure of the 1995 HCP that offsets the impacts of incidental take caused by the Covered Activities (p. vi).” Throughout the EIS, the commitments described in the HCP are referred to as commitments by the County and the HCP Partners. The USFWS believes this language adequately addresses the concern raised about the Federal agency commitments and the County commitments.</p>
H.86-8	<p>Chapter 2.4.2.5, p 2-16                      The Draft EIS fails to capture an important distinction between establishment of the Reserve as a mitigation measure under the 1995 HCP and Amended HCP (an action supporting the issuance of the ITP) and the acquisition and long-term management of the Reserve as complimentary federal actions t towards achieving the recovery-based biological goals and objectives of the 1995 HCP/Amended HCP.                      The Final EIS should make clear that the federal agency commitments specified in the 1995 HCP and carried forward into the Amended HCP are not relied upon for demonstrating satisfaction of the ITP issuance criteria, as they clearly are not part of the applicant's proposed conservation plan.</p>	<p>Refer to response to A.05-38.</p>

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A.05-39	<p>Chapter 2.4.2.5, p 2-17  EIS Text: In addition to the design, acquisition, and long-term management of the Reserve, the Amended HCP identifies other conservation measures to minimize and mitigate the impacts of the Covered Activities on the Mojave desert tortoise or to further the biological goals and objectives of the Amended HCP. See the Draft Amended HCP and Implementation Agreement for more information on responsible parties for each conservation measure. These conservation measures include the following:  Comment: The Draft EIS should capture language in the Amended HCP that acknowledges the conservation actions that have been completed to release the previously authorized take. This statement in the Draft EIS should be revised to read: "See the Draft Amended HCP and Implementation Agreement for more information on responsible parties for each conservation measure and for conservation measures that have been completed during the Original ITP term. The additional conservation measures proposed in the Amended HCP include the following: "</p>	<p>The EIS was revised as suggested.</p>
A.05-40	<p>Chapter 2.4.2.6, p 2-20  EIS Text: Upon the triggering of the changed circumstance, the County would no longer seek take authorization resulting from Covered Activities outside the Reserve on approximately 3,338 acres of Mojave desert tortoise habitat that would otherwise be authorized by the Amended HCP without the changed circumstance.  Comment: This statement mischaracterizes the County's intent with respect to take authorization associated with Zone 6 lands. The County is seeking to renew the take authorization associated with the Zone 6 lands. However, as a conservation measure triggered by the Northern Corridor Changed Circumstance, the County would retire 3,338 acres of previously issued and renewed take authorization. This conservation measure has separate and additional value apart from the other measures described in Chapter 9.1.1.1.4 of the Amended HCP. This statement should be revised to state: ". the County would retire approximately 3,338 acres of incidental take previously authorized by the USFWS and otherwise renewed as part of the proposed action."</p>	<p>The statement in the EIS has been revised to indicate that upon the triggering of the changed circumstance, incidental take of Mojave desert tortoise associated with 3,338 acres of tortoise habitat on non-Federal lands within proposed Reserve Zone 6 would no longer be part of the County's ITP. If the changed circumstance is not triggered, these acres would be included as part of the County's HCP for authorization of incidental take.</p>

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A.05-48	<p>Table 3.1-1, p 3-2                      EIS Text: Issuance of ITP to Washington County=Not Impacted for: ACEC; Livestock Grazing; NCAs; Recreation Resources; Visual Resources                      Comment: The Northern Corridor Changed Circumstance of the Amended HCP provides a beneficial impact to the resources that occur within BLM administered lands associated with the proposed Zone 6 that is separate and apart from the actions considered in the SGFO RMP amendments. The same can be said for the conservation benefits of the County's management support for activities within the Red Cliffs NCA that furthers the conservation purposes of that designation. For non-federal parts of the proposed Zone 6, the ITP-related action would create benefits to other certain resources if the Northern Corridor Changed Circumstance is triggered, such as for Visual Resources. The Draft EIS should be revised to evaluate those beneficial effects of the ITP-related action, with revisions to both Table 3.1-1 and the related resource chapters.                      The rationale provided for Recreation Resources does not appear to fit the "Analyze" decision noted in the table. The rationale for Recreation Resources should acknowledge that the ITP-related action provides beneficial support for recreation resources that would not occur otherwise.                      The rationale for Woodlands and Forestry suggests that the action before the USFWS is the "issuance of a new ITP." This statement should be revised to acknowledge that the decision before the USFWS is whether or not to approve a permit renewal.</p>	<p>Table 3.1-1 in the EIS has been revised to clarify that the analysis does evaluate the benefits on non-Federal lands within proposed Zone 6 from the HCP's commitments regarding livestock grazing. Because the HCP commits to "coordinate with the holders of active grazing permits applicable to proposed Reserve Zone 6 and attempt to negotiate the acquisition of such grazing permits or portions thereof from willing sellers" the agencies determined that it would not be appropriate to analyze the full removal of livestock grazing from the non-Federal lands in proposed Zone 6, because the County has yet to secure these commitments from grazing permittees. The analysis contained in the EIS already captures the other committed benefits. Therefore, no additional analysis revisions were necessary for this resource.                      The Woodlands and Forestry rationale for the issuance of an ITP to Washington County has been revised to clarify that the rationale applies to the "issuance of an ITP to Washington County."                      For the other resources mentioned in the comment, the BLM and USFWS reviewed the analysis and determined that the analysis in the EIS accurately captures the impacts and benefits to resources and resource uses associated with the Amended Washington County HCP.</p>

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A.05-52	<p>Chapter 3.1.2, p 3-5                      EIS Text: This analysis could be used by the USFWS to evaluate potential reasonable and prudent alternatives, measures, and other terms and conditions if the BLM initiates formal ESA Section 7 consultation on a Northern Corridor alternative that impacts the Reserve. Where possible, the priority is to mitigate impacts at the site of the activity. However, depending on the Northern Corridor alignment that is ultimately selected, the USFWS may determine that additional actions, beyond those that may occur onsite, may be required to meet legal requirements. Conservation measures would be identified in the Final EIS with appropriate analysis to support a decision to issue an ITP, if that alternative is selected. If a Northern Corridor alignment within the NCA is selected, any conservation measures applied to the selected alignment will be incorporated into the final plan of development for the roadway. Any other conservation measures required on Federal lands outside of a selected alignment may.</p> <p>Comment: As mentioned in a previous comment, both the BLM and the USFWS have limits on the form and amount of mitigation they are able to require of permit applicants. There is little point in reviewing the biological impacts of additional or other conservation measures if implementing such measures is outside of the agency's discretion to impose. For example, regulations and policy regarding compliance with Section 7 of the ESA limits the USFWS to consideration of Reasonable and Prudent Measures that are subject to the minor change rule and clarified by policy guidance noting that off-site or compensatory mitigation is not appropriate. The Draft EIS should be revised to strike this statement or the BLM and USFWS should clarify the regulatory basis for any different or additional conservation requirements. This comment also applies to similar statements in Chapter 3.5.2.1, p3-58.</p>	<p>The EIS has been revised to clarify the USFWS' evaluation of potential reasonable and prudent measures and that any recommended conservation measures must fall within the jurisdiction of the agency or the applicant. Refer also to response to A.05-24.</p>

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A.05-58	<p>Analysis Methods and Assumptions - all ITP-relevant resources EIS Text: NA Comment: The analysis assumptions and methods for the ITP-related resources does not consistently implement the assumption that development will happen under No Action and the non-Reserve Northern Corridor alternatives, particularly within the non-federal portions of Zone 6. The alternatives where the Northern Corridor trigger Zone 6 provide a direct environmental benefit with the retirement of the previously authorized and otherwise renewed take authorization on the more than 3,300 acres of non-federal Zone 6 lands. The retirement of this take authorization also provides an indirect environmental benefit on all adjacent federal lands, as the indirect impacts of the presumed development are also removed. The environmental benefits of the retired take authorization are in addition to the separate benefits generated by the implementation of management activities in Zone 6. Clarification of these assumptions/methods is critical since the 3,300 acres in question provide valuable habitat for several listed plant species, including a significant population of dwarf bear-poppy plants. Similarly, the closure of roads or trails in the BLM-administered part of Zone 6 would also reduce associated indirect impact buffers on other BLM-administered lands outside of Zone 6. The Draft EIS should be revised for all ITP-relevant resources to explicitly account for the direct and indirect benefit of the retirement of previously authorized and subsequently renewed take authorization associated with the non-federal lands in Zone 6.</p>	<p>The EIS explains the County's commitment to no longer seek take authorization resulting from Covered Activities outside the Reserve on approximately 3,338 acres (Reserve Zone 6), in Section 2.4.2.6, Changed Circumstances, Take Authorization within Proposed Reserve Zone 6. The benefits to special status plants that fall within the proposed Zone 6 are referenced in Section 3.3.3. The benefits to special status wildlife habitat from actions within Zone 6 are described in Section 3.5. Also refer to response to A.21-9.</p>
A.05-84	<p>The action of renewing an ITP is governed by USFWS permit administration regulations at 50 CFR 13.22. While the Draft EIS acknowledges that 50 CFR 13.22 provides for continued reliance on an expired ITP while renewal is under consideration, this regulation also governs the standards under which USFWS is to consider a request for permit renewal. As the take subject to renewal has already been found to meet the ITP issuance criteria, which have not changed at all in the intervening years, the renewal of the ITP is subject solely to 50 CFR 13.22.</p>	<p>The USFWS determines whether the Amended HCP still meets ITP issuance criteria (USFWS and NMFS 2016, p. 17-6). The USFWS considers Section 10(a)(2)(A) of the ESA and its implementing regulations at 50 CFR 17.22 and 17.32, and the 2016 HCP Handbook (USFWS and NMFS 2016) as our most current regulations, policy, and standards for HCP and associated amendments. Refer to response A.05-2.</p>

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5140-1	It is stated that if the changed circumstances do not occur, Washington County would not implement the amended HCP and would cease implementing the 1995 HCP. There would be no future funding for Mojave tortoise conservation including land acquisitions, monitoring of tortoise relocations, fence maintenance, law enforcement, outreach, recreation manager or other tortoise conservation actions.	The commenter misstates Washington County's Amended HCP and the BLM and USFWS' EIS. As described in Section 2.6 of the EIS, the potential issuance of an ITP to Washington County is not associated with the changed circumstances outlined in the County's Amended HCP.
10827-8	The county has also improperly conditioned its draft HCP and Incidental Take Permit (ITP) application on approval of the NCH.	Refer to response to 5140-1.
A.12-1	<p>Without explaining why, you selected UDOT Application Alignment (Alt.3). It is not understandable how this was your conclusion after comparing the information in your material. We believe the Red Hills Parkway Expressway (Alt. 5) is a better selection for many reasons as shown;</p> <ul style="list-style-type: none"> <li>• Impacts on Ecological System Groups- The Red Hills Parkway Expressway (Alt. 5) Environmental analysis is based on a conceptual roadway design that assumes no additional ground disturbance outside the current fencing would be necessary.</li> <li>• Impacts on vegetation Groups from Potential Dust and Exotic Invasive Species Spread. A total of 45 is shown for Alt 5 compared to over 3000 for Alts 2,3 &amp; 4. No occupied habitat or critical habitat for Federally listed plants would be directly impacted in Alt. 5.</li> <li>• Impacts to general wildlife from Alt 5 would be minimal compared to 2,3 &amp; 4 because existing paved roadways with very little wildlife habitat would be converted to the N. Cor. Significant impacts could occur from other alternatives. The Mojave Desert Tortoise is impacted by noise vibration, light, road crossing mortality.</li> </ul> <p>In reviewing the tables on Page 3-59 Table 3.5-10 and page 3-62 Table 3.5-11, I found far less critical impact on the Mojave Desert Tortoise in Alt 5 than in Alts 2,3 &amp; 4. The above does not include all of the data that supported my selection of Alt. 5.</p>	Alternative preference and rationale noted. If the BLM decision maker selects a Northern Corridor alternative that crosses the Red Cliffs NCA, the decision maker would explain their rationale for that selection in the BLM ROD.

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H.65-2	Dixie Metropolitan Planning Organization (DMPO) models indicate that alternatives 2-4 will at some point fail to address future traffic congestion. Another alternative will have to be implemented anyway. Alternatives 5 and 6 provide the ability to address growing traffic needs, without the damage of alternatives 2-4.	Refer to response to A.12-1.
H.65-3	Alternative 3 (or 2 or 4) is being pushed by local governments now because the only way they see getting it approved is by political influence on a Department of Interior that is friendly to the idea of reducing environmental protections. The traffic congestion projected to be significant in 20 + years may or may not get to the point of needing expensive solutions. The "ripeness" doctrine should have been applied to the Northern Corridor NEPA application's purpose and need statement. Requesting the Right-of-Way is getting far too out front of the timing of the need. Conditions and technology will dramatically change in the next 20+ years. The inappropriate time crunch presented by a political situation is a poor reason to make a poor decision.	Refer to response to A.12-1. Based on the DMPO's Regional Transportation Plan, the first phase of the Northern Corridor is programmed to be constructed between 2019 and 2030. Based on this anticipated construction timeline, the BLM determined that the application submitted by UDOT is ripe for review.
10827-14	Under the ESA Section 10(a)(2) requirements, the county's draft HCP conservation measures would not "minimize and mitigate" to the "maximum extent practicable" and "fully offset" anywhere near the level of requested, carry over incidental take. This is because the current draft HCP must be evaluated under the current law and current factual circumstances. The ESA regulations generally remain strong, and the science shows the county's abject failure in stopping or reversing the substantial tortoise declines. Moreover, the county is improperly conditioning many of the otherwise necessary and appropriate tortoise conservation measures on approval of the NCH, both through a BLM right-of-way and issuance of the ITP. This is an admission by the county that it could take these needed measures, but it refuses to do so unless it gets its damaging NCH.	The comment inaccurately cites Section 10(a)(2) of the ESA, which does not contain text related to "fully offset." For ITP renewals or amendments, the USFWS is required to update scientific information and to ensure that all statutory and regulatory requirements are met. The USFWS determines whether the Amended HCP still meets ITP issuance criteria (USFWS and NMFS 2016, p. 17-6). The USFWS considers Section 10(a)(2)(A) of the ESA and its implementing regulations at 50 CFR 17.22 and 17.32, and the 2016 HCP Handbook (USFWS and NMFS 2016) as our most current regulations, policy, and standards for HCP and associated amendments. If the HCP submitted by the applicant meets issuance criteria and is statutorily complete, the USFWS shall issue the permit.

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10827-15	In addition, the county's draft HCP includes Zone 6 and other conservation measures that would occur on BLM or SITLA land and require cooperation by those agencies. As previously described, BLM can and should be taking these conservation actions on its own (including adopting strengthening SGFO RMP amendments and future reduced Travel Management Plan route designations) without any connection to the NCH or county's draft HCP. And SITLA may or may not fulfill its future conservation commitments, but, in any case, this is beyond the county's jurisdiction and control.	As described in Section 1.3.3 of the EIS, the BLM's need to consider an amendment to the SGFO RMP is associated with the BLM's support for the proposed Washington County HCP and the associated HCP Implementation Agreement. The BLM is considering travel management planning for the entire SGFO through a separate implementation-level Travel Management Plan. Refer also to response to NCA-03.
10827-16	The county's attempt to use the NCH as a "changed circumstance" through a Section 7 consultation is inconsistent with the relevant 50 CFR Section 17.3 provisions. As acknowledged in the DEIS, there are feasible alternatives to the NCH and therefore an unnecessary and destructive highway should not be considered comparable to changes wrought by things like climate change, drought, or disease. In total, FWS approval and county implementation of this draft HCP/ITP would more than "appreciably reduce" the prospect for successful tortoise conservation and recovery.	The comment misstates the BLM and USFWS' ESA Section 7 consultation requirements. If the BLM were to select an alternative that would approve a Northern Corridor across BLM-administered lands or amend the Red Cliffs NCA or SGFO RMPs, the agency would first be required to consult with USFWS under Section 7 of the ESA regarding the potential impacts of these actions on threatened and endangered species and designated critical habitats. Similarly, if USFWS were to issue an ITP to Washington County based on the Amended HCP, the USFWS would first be required to complete an intra-service ESA Section 7 consultation.
A.22-1	The Northern Transportation Route now referred to as the Northern Corridor has been contemplated since before the HCP was created. I've spoken with former County Commissioners and Federal Legislators that were part of the negotiating team working on what became the Washington County Lands Bill. They all insist that the Northern Corridor was an integral part of the agreement that they reached and were shocked to see it reduced to "possible routes being identified" by an unfavorable Congress and Administration. It has been further diluted to all our dismay in the updating of the BLM's Resource Management Plan (RMP) for the land they control within the HCP. One principal author of that RMP was nearly successful in writing the Northern Corridor out of the plan altogether as a reflection of her bias against it. The update to that RMP was done without consultation with the Cooperating Agencies in violation of Federal Law and the exclusion was so egregious that a Congressional Hearing was held in the Dixie Center to address the failed process and the flawed results.	The Red Cliffs NCA RMP was developed pursuant to the direction provided by Congress in OPLMA, FLPMA, and other applicable laws. The BLM's 2016 Red Cliffs NCA Approved RMP describes the BLM's engagement with cooperating agencies during the development of the Red Cliffs NCA RMP.

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A.21-3	<p>Alternative 3 meets BLM’s travel management objectives and further implements BLM’s requirements under OPLMA Section 1977 to develop a comprehensive travel management plan that identifies a northern corridor transportation route. OPLMA Section 1977 specifically directs the Secretary of the Interior to develop a comprehensive travel management plan for the land managed by BLM in Washington County and, in accordance with FLPMA, “in developing the travel management plan, the Secretary shall, in consultation with appropriate Federal agencies, State, tribal, and local governmental entities (including Washington County and St. George City, Utah), and the public, identify one or more alternatives for a northern transportation route in the County.” Only Alternatives 2, 3, and 4 would satisfy this statutory requirement. The southern alternatives (Alternatives 5 and 6) and the no action alternative (Alternative 1) do not meet this directive. Moreover, throughout years of modeling and planning, it is shown that the existing transportation system will deteriorate and be insufficient without an alternative northern corridor route. As a result, without an alternative transportation corridor to offset population growth and transportation needs, the existing transportation system will become progressively less safe and more congested, with increasing emissions and other impacts to the community, including increased conflicts with pedestrians and effects on community connectivity.</p>	<p>Alternative preference noted. As described in Section 1.1 of the EIS, the BLM is considering several alternative northern transportation routes as part of this EIS in response to the UDOT ROW application. If a ROW is granted and the RMP is also amended, BLM will then be able to fully consider that ROW as a specific northern transportation route (i.e., a Northern Corridor) as part of a future travel management planning process as Congress has instructed in Section 1977 of OPLMA. The potential impacts on the County’s transportation system are addressed in Section 3.26 of the EIS.</p>
A.21-16	<p>The DEIS acknowledges that further information, discussion, and related requirements (if any) will be the result of the ESA Section 7 process, and UDOT, as the project applicant, therefore, requests to be involved in all procedures to be used for ESA compliance. Consequently, until UDOT has been consulted in conjunction with the Section 7 process and before issuance of the biological opinion and incidental take statement, no action should be taken in the Record of Decision to impose MDT-related requirements or any additional mitigation measures.</p>	<p>The BLM and USFWS are involving UDOT in the ongoing Section 7 consultation process as appropriate, including discussions of the potential impacts of issuing a ROW for the Northern Corridor, project design and construction, and potential conservation measures appropriate to reduce those impacts.</p>
A.21-23	<p>Additionally, UDOT requests participation and consulting party status under the NHPA during the resolution of adverse effects process pursuant to Section 106.</p>	<p>The BLM will involve UDOT as appropriate in the ongoing NHPA Section 106 consultation and resolution of adverse effects on historic properties.</p>

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A.20-12	<p>Appendix H; H-4; H.7.1. Comment: Appendix H at the bottom of page H-4 (section H.7.1) The wording “the City would resolve any potential inconsistencies as it sees fit” are inaccurate.</p> <p>The City of St. George, as a cooperating agency, has maintained throughout the EIS process that a one-way couplet on St. George Boulevard and 100 South is so far removed from the City’s current Land Use Plans, Policies, and Controls that the City would not support this alternative and would be unwilling to “resolve any potential inconsistencies.”</p> <p>With this in mind, if the federal agencies were to choose Alternative 6 and then divest themselves of responsibility, the applicant’s objective of reducing congestion, adding capacity and accommodating population growth would not be met.</p>	<p>Appendix H of the EIS has been revised to note that the City of St. George could choose not to implement Alternative 6, in which case the desired outcomes of reducing congestion, increasing capacity, and improving east-west mobility would not be realized.</p>
A.41-5	<p>We recommend the Final EIS more clearly describe BLM’s consultation under Section 106 of the National Historic Preservation Act (NHPA) with impacted and potentially impacted tribes. The Draft EIS (Section 3.14.1.2) states that 42,830 acres, approximately 50 percent of Area of Potential Effects (APE), has been surveyed as a result of 526 cultural resources investigations from previous actions in the area. Based on historical surveys of this acreage, there are 388 previously recorded historic properties, indicating a discovery of additional historic properties may be likely. We note that the Hopi Tribe responded that the proposed Northern Corridor through the NCA would “adversely impact cultural and natural resources that are significant to the Tribe”. We therefore recommend the Final EIS document the collaboration with the Hopi Tribe consistent with Section 106 of the NHPA. In addition, BLM had not yet received a response from the 17 other potentially impacted tribes at the time the Draft EIS issued. The Draft EIS indicates that consultation with tribes is on-going. Because at least one tribe indicated concerns with adverse effects we recommend additional outreach to Tribal Historic Preservation Officers and traditional elders, as appropriate, with the other identified Tribes. This effort will be useful to more fully understand the potential for adverse cultural resource effects associated with each action alternative.</p>	<p>The BLM and USFWS have updated Section 4.2 of the EIS to include additional information regarding the agencies’ ongoing efforts related to NHPA Section 106 consultation and American Indian Tribal consultation and coordination.</p>

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A.41-6	<p>The Draft EIS states that formal consultation with the U.S. Fish and Wildlife Service (FWS) will be initiated and that a Record of Decision will not be signed until Section 7 of the Endangered Species Act (ESA) is complete (Section 4.2). To best inform the decision-maker and the public, the EPA recommends that the Final EIS include the following: 1) Analysis and findings of the FWS Biological Assessment and Opinion and 2) FWS recommendations to reduce potential impacts to threatened, endangered, or sensitive species, including additional project design criteria, mitigation, conservation and monitoring measures.</p>	<p>The BLM and USFWS have updated Section 4.2 of the EIS to include additional information regarding the agencies' ongoing efforts related to Section 7 consultation at the time the Final EIS was published. All appropriate information related to Section 7 consultation would be available to the BLM and USFWS decision makers before each agency signs a ROD for the Federal actions analyzed in the EIS, and applicable information from the Section 7 consultation would be incorporated into the ROD. Because the EIS contains BLM land use planning decisions, the BLM cannot sign a ROD until the completion of a Governor's consistency review, completion of a protest period, and resolution of any protests received.</p>

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A.24-3	<p>3) BLM and FWS improperly accept the county's Zone 6 proposal as a condition for NCH Alternatives 2, 3, and 4 without analyzing their ability to independently implement many related conservation measures Except for the addition of county funds and staff, and SITLA's potential illusory conservation commitments, BLM and FWS could independently approve the remaining and substantial Zone 6 conservation measures. Indeed, BLM acknowledges in the DEIS that it could improve tortoise conservation through its proposed measures but inexplicably links those measures to NCH approval.</p> <p>As noted above, BLM has an affirmative duty to work for tortoise conservation and it cannot condition or limit that duty through a de facto improper abdication of federal authority to the UDOT and county's NCH proposal. Similarly, FWS could and should ask BLM to adopt these needed measures without improperly linking them to the NCH. BLM and FWS should not be intimidated nor unduly influenced by the county's improper "NCH or nothing" Zone 6 ultimatum. Zone 6 is comprised of BLM and SITLA lands, and the county has no control over the management of those lands. It is arrogant for the county to assert that it does.</p>	<p>As described in Section 1.3.3 of the EIS, the BLM's need to consider an amendment to the SGFO RMP in the current action is associated with the BLM's support for the proposed Washington County HCP and the associated HCP Implementation Agreement.</p> <p>The USFWS is reviewing the Amended HCP submitted by Washington County as directed by Section 10(a)(2)(A) of the ESA and its implementing regulations at 50 CFR 17.22 and 17.32, and the 2016 HCP Handbook (USFWS and NMFS 2016). If the HCP submitted by the applicant meets issuance criteria and is statutorily complete, the USFWS shall issue the permit.</p> <p>The comment confuses the BLM's broad responsibilities to support the conservation of ESA-listed species. These responsibilities are described in detail in BLM Manual 6840, and include Federal, State, and local agency cooperation and consultation with USFWS regarding the potential impacts of the BLM's actions on ESA-listed species. The BLM's broad responsibilities for conserving ESA-listed species are carried out through but not limited to the allocations of resources during the development of RMPs, incorporation of conservation actions and best management practices into actions the agency authorizes or carries out, and proactive management of habitat to support ESA-listed species. The BLM SGFO is engaged in many such actions to support long-term Mojave desert tortoise conservation and recovery.</p> <p>As described throughout the EIS and Amended HCP, SITLA lands within proposed Reserve Zone 6 are anticipated to be permanently protected through long-term acquisition, and management of these lands by the BLM or another conservation entity should an alternative that establishes Zone 6 be selected by BLM and USFWS.</p>

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A.24-11	<p>11) The NCH DEIS analysis fails to acknowledge that NCH related RCNCA Plan amendments for VRM and SRMA designations may result in arbitrary changes that undermine the purposes for those designations</p> <p>In my experience, BLM, when politically pushed to do so, tends to make arbitrarily narrow Visual Resource Management (VRM) and Special Recreation Management Area (SRMA) designations that sometimes resemble limited corridors on the landscape. The shapes and sizes of these designated “zones” may be unrealistic and thereby undermine the purposes for those designations. In the NCH DEIS, this sad pattern continues with BLM proposing to weaken its own previous VRM and SRMA designations in the RCNCA Plan to accommodate UDOT and the county. The public is left to wonder at what point such weakening undermines the very purposes for those RMP level designations.</p>	<p>Refer to response to NCA-01. The BLM is considering amendments to the Red Cliffs NCA RMP VRM allocations and Red Cliffs SRMA RMZ boundaries in accordance with the BLM land use planning regulations and FLPMA, OPLMA, and relevant BLM policies and manuals.</p>

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A.24-14	<p>14) Although the NCH would be a “changed circumstance” under the proposed HCP, and therefore subject to ESA Section 7 consultation, the FWS Biological Opinion (BO) was not part of the NCH DEIS analysis nor available for any public NEPA review. While the public does not normally have the opportunity to comment on FWS BOs, these documents nevertheless may contain crucial information that could have been included in the NCH DEIS. In this particular case, there is a “catch 22.”</p> <p>The ESA regulations say that this NCH DEIS is where the draft HCP NEPA compliance occurs. Any public “objection” to a draft HCP under these regulations must also be filed during the NEPA comment period. By not having the chance to review the FWS BO, and its key “jeopardy” determination, the public does not have this potentially pivotal information to factor into their NCH DEIS NEPA comments.</p> <p>The 1995 HCP did not allow any new roads in the RCDR. FWS also properly determined several years ago that the NCH would violate that HCP. Now the county has a draft HCP that would not only allow this destructive NCH through the RCDR and RCNCA, and impermissibly “adversely modify” critical tortoise habitat, but also condition the county’s willingness to implement necessary tortoise conservation measures on NCH approval. This is not a normal situation.</p> <p>Because of the interwoven and interconnected proposed actions analyzed in the NCH DEIS, every piece of the tortoise “puzzle” becomes highly important. Without review of the FWS BO, the public is shortchanged and the NEPA analysis is incomplete.</p>	<p>Section 4.2 of the EIS has been updated to include additional information regarding Section 7 consultation. The ESA and associated BLM and USFWS agency regulations and policies require that the agencies complete their Section 7 consultation responsibilities prior to issuing a decision on the Federal action before the agency. The ESA and associated BLM and USFWS agency regulations and policies do not require the agencies to complete the Section 7 consultation process prior to the publication of a Draft or Final EIS, or to release their Biological Assessment or Biological Opinion with either of these NEPA documents. All appropriate information related to Section 7 consultation would be available to the BLM and USFWS decision makers before each agency signs a ROD for the Federal actions analyzed in the EIS, and applicable information from the Section 7 consultation would be incorporated into the ROD.</p>
A.44-17	<p>For the foregoing reasons and including those set forth in much greater detail in the Red Cliffs Conservation Coalition comments, I urge FWS to deny the county’s ITP application. FWS should inform the county that it cannot approve the ITP because both the draft HCP and draft IA do not meet the relevant legal standards. In addition, FWS should inform the county that it was improper for it to attempt to condition the draft HCP on approval of the NCH. FWS should work closely with BLM to correct the many identified NEPA inadequacies in the NCH DEIS and encourage BLM to independently approve the necessary and appropriate MDT conservation measures on BLM lands described in the DEIS.</p>	<p>Alternative preference noted. Refer also to response to A.24-3.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.32-3	<p>The Draft EIS also covers the extension of the existing Washington County Desert Tortoise HCP for a 25-year period. Several provisions of this proposed extension should be revised. In particular, in the Preferred Alternative as well as other Alternatives, HCP fees—which are already lower than fees charged in many HCPs— would be restricted to the proposed Zone 6 rather than the Red Cliffs Desert Reserve overall. The Reserve will continue to require substantial funds to manage, restore, and monitor as well as obtain inholdings which still need to be acquired. Accordingly, future income collected through HCP process should not be restricted solely to Zone 6.</p>	<p>The comment inaccurately states that under the Amended HCP submitted by Washington County future income collected through the HCP process would be restricted solely to Zone 6 and inaccurately describes some of the actions funded using the HCP funds collected by the County. Chapter 8 of the Amended HCP describes anticipated costs associated with HCP Administration and the Standard Conservation Program, anticipated costs associated with the Northern Corridor changed circumstance, and anticipated costs associated with other changed circumstances. Table 1 in the Amended HCP described the roles and responsibilities of Washington County and the HCP Partners in the implementation of the Amended HCP. Fees are part of the conservation program identified by the County. The USFWS will analyze the proposed conservation program to determine if it meets issuance criteria.</p>
A.50-2	<p>In addition, it is inappropriate to press for an HCP that allows development outside the reserve before the issues within the reserve are resolved. The attempt to use acreage as a surrogate for individuals in defining incidental take is not appropriate in this case. Indeed, the quantification of incidental take requires additional work to define the current status of the Virgin River populations and hence the allowable level of incidental take.</p>	<p>The USFWS is reviewing the Amended HCP submitted by Washington County as directed by Section 10(a)(2)(A) of the ESA and its implementing regulations at 50 CFR 17.22 and 17.32, and the 2016 HCP Handbook (USFWS and NMFS 2016). If the HCP submitted by the applicant meets issuance criteria and is statutorily complete, the USFWS shall issue the permit.</p> <p>The “Surrogate Rule” finalized in 2015 by USFWS established the criteria for the use of surrogate metrics to measure and track incidental take authorized through Section 7 of the ESA (80 FR 26832). Use of a habitat surrogate to track incidental take must meet the three conditions established in the USFWS Surrogate Rule (50 CFR §402.14) and consistency with the guidance in the HCP Handbook (USFWS and NMFS 2016) should be considered. Section 5.2.2.1 of the Amended HCP addresses the County’s proposal to use a surrogate metric to track take under the Amended HCP.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-48	<p>The Omnibus Public Land Management Act of 2009 tasks BLM with conserving, protecting and enhancing the Congressionally-established purposes of the Red Cliffs NCA. By choosing an alternative that adversely impacts designated critical habitat, federally-threatened species and NHRP-eligible cultural resources, BLM appears to be showing that its orientation is not on meeting its statutory responsibilities.</p> <p>Furthermore, BLM's own analysis shows that Alternatives 5 and 6, located outside of the Red Cliffs NCA, reduce traffic congestion better than the BLM-preferred Alternative 3, and cause little to no damage to the Red Cliffs NCA 's purposes, including protection of federally-listed species. (DEIS at 16, 17 and 20 in Appendix J).</p> <p>The Red Cliffs NCA Record of Decision instructs BLM to consider ROW authorization only under certain conditions, including only when "required for local, essential community service and when no siting alternative exists outside the NCA." ROD at 66.:</p> <p>Despite these requirements to openly and objectively discuss, examine and explain how the proposed alternative meets the substantive and procedural obligations under NEPA, FLPMA, OPLMA and other requirements, BLM provided no explanation whatsoever of why it has chosen the preferred alternative.</p>	Refer to responses to DP-06 and NCA-01.

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-67	<p>"The BLM and the USFWS have identified Alternative 3 (UDOT Application Northern Corridor Alignment and issuing an ITP based on the Amended HCP) as the agencies' preferred ROW alignment and ITP issuance alternative for the purposes of public comment and review, with Alternative B identified as the preferred for the two RMP amendments."</p> <p>Issue:</p> <p>7. The DEIS rates the BLM preferred Alternative 3 as inferior to the Alternatives 4 and 5 in terms of environmental impacts (ref DEIS Executive Summary, Table ES.5-1. Alternative Comparison by Resource Table). Similarly, Alternative 3 rates no better than Alternatives 4 and 5 in terms of traffic congestion relief (ref Appendix J, Highway Alternatives Development Technical Report, Table 4. Transportation Analysis: 2050 Evening Peak Hour Intersection LOS Results). There appears to be no valid reason for the BLM's preference. Please provide the rationale.</p> <p>8. Washington County has proclaimed that the Northern Corridor Highway is "essential" for the county's economy, has sold this idea to the municipalities in the county, to the state legislature and to Utah's Congressional delegation, without proof or engagement of the public in alternatives. Indeed, that proof is proven wrong in this DEIS's conclusion, showing alternatives outside the NCA are better in terms of both environmental impacts (see summary of environmental impacts in the Executive Summary) and traffic relief (see analysis results in the tables in Appendix J). The alternatives inside the NCA should be denied.</p>	Alternative preference noted. Refer to response to DP-06.

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.35-1	<p>I am writing this letter for your consideration and primarily to preserve potential claims in the event third-parties initiate litigation pertaining to the Service's approval of the Amended Habitat Conservation Plan and the Renewed Incidental Take Permit (ITP). It is a reasonable assumption that any such litigation would focus on the sufficiency of the Service's evaluations under the National Environmental Policy Act (NEPA) and sections 7 and 10 of the Endangered Species Act (ESA). There exist, however, strong but untested arguments that neither NEPA nor section 7 are legally applicable to issuance of an ITP.</p> <p>The Service "action" which potentially triggers NEPA and ESA section 7 review is issuance of the ITP. However, the hallmark of NEPA and section 7 is that those procedures are triggered only where a federal agency is considering a discretionary action and the reasonable range of alternative actions that may be available to such agency. While we are not aware of a court having addressed this precise question, our review of the case law and the ESA and applicable regulations and guidance leads us to the conclusion that the Service's "action" of issuing a renewed ITP is in critical respects not discretionary. Therefore, while third parties may challenge how the Service approached review under NEPA and section 7, we wish to preserve the argument that in any event neither law was applicable to the Service's review of our application for a renewed ITP, and thus any third-party claims about failings in those processes are moot. The heart of this question is, of course, whether a court should conclude that Service consideration of application for a renewed ITP is a discretionary action subject to NEPA and ESA section 7. After careful review and consideration, we believe that it is doubtful that in this context the Service holds sufficient discretion to require and support the NEPA and section 7 processes. While we would be willing to expand upon our analysis, we are at this point seeking only to preserve a point in the event of litigation. We are, of course, far more interested in completing the processes to the mutual satisfaction of all concerned.</p>	Comment noted.

Appendix O Responses to Public Comments on the Northern Corridor – Highway Right-of-Way, Issuance of an Incidental Take Permit Final EIS and Draft RMP Amendments

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.35-4	<p>The County agreed to make amendments to its 1995 HCP, addressing all requests for information made by USFWS, that ultimately included:</p> <ul style="list-style-type: none"> <li>a. clarifying the language to more accurately reflect the original intent of the 1995 HCP with respect to the scope of the Covered Activities outside and inside of the Reserve;</li> <li>b. providing a current accounting of previously authorized versus realized incidental take, using an updated surrogate metric;</li> <li>c. incorporating updated information on biology and distribution of MDT;</li> <li>d. addressing changes in regulation and applicable policy guidance related to HCPs, such as the No Surprises rule (63 Federal Register [FR] 8859), Surrogate Rule (80 FR 26832), and the HCP Handbook; and</li> <li>e. providing explicitly for Changed Circumstances.</li> </ul>	<p>Comment noted. The USFWS has worked and continues to work with the County to provide guidance for meeting issuance criteria with the proposed Amended HCP.</p>
A.35-5	<p>The County disagreed with USFWS on several significant changes they requested for the Amended HCP which included:</p> <ul style="list-style-type: none"> <li>a. Adding additional covered species</li> <li>b. Elimination or reductions to covered activities</li> <li>c. Reductions to the Permit area</li> </ul>	<p>Comment noted. The USFWS has worked and continues to work with the County to provide guidance for meeting issuance criteria with the proposed Amended HCP.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.35-9	<p>The commitments of the land management partners (namely, the BLM, USFWS, and UDNR) are made towards the recovery-focused goals and objectives of the HCP and are not part of the conservation program that is subject to review under the ITP issuance criteria. The USFWS has repeatedly acknowledged the dual purpose of the 1995 HCP towards supporting ITP issuance and as a vehicle for furthering the recovery of the MDT.</p> <p>a. The County has never been obligated to ensure that the Reserve is acquired or protected. This has always been a commitment of the BLM supporting recovery of the species.</p> <p>b. The County is not able to assure that the BLM, USFWS, and UDNR will complete their respective actions described in the HCP; nor can these agencies make such assurances for themselves. For the USFWS to suspend or revoke the County's ITP authorization or to require additional commitments from the County for failure by these entities to complete their commitments would be a violation of its No Surprises assurances.</p> <p>c. The USFWS released all take to the County despite both USFWS and BLM failing to complete commitments made towards MDT recovery.</p> <p>d. USFWS awarded multiple ESA Section 6 grants to support the acquisition of Reserve lands. The rules for awarding such grants explicitly state that the funds are not to be used to satisfy the mitigation obligations of applicants.</p>	<p>Nothing in the EIS indicates that the BLM or USFWS intend to hold Washington County responsible for the commitments of the HCP Partners under the Amended HCP or 1995 HCP. Refer also to responses to A.05-2 and A.35-8.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.35-10	<p>The County has proposed a set of conservation measures that fully offset the impacts of the Northern Corridor on the conservation value of the Reserve as a response to a Changed Circumstance. However, this commitment of additional conservation measures is not statutorily required mitigation under the ESA. The County made this substantial commitment as a demonstration of good faith and partnership for the benefit of the MDT and the community.</p> <p>a. The Northern Corridor is not a Covered Activity of the Amended HCP. The impacts of any take associated with the Northern Corridor are not subject to evaluation under the ITP issuance criterion for minimizing and mitigating to the maximum extent practicable. This criterion applies only to the impacts of take authorized by the ITP</p> <p>b. The Northern Corridor is an activity with a federal nexus involving federal lands and federal approvals by the BLM. Effects of this federal action on listed species and critical habitats designated under the ESA are addressed through Section 7 interagency consultation. In this case, the "effects of the action" includes effects to the conservation value of the Reserve as it pertains to the MDT- "but for" the federal action approving the right-of-way for the Northern Corridor, these effects would not occur.</p> <p>c. The approval of the Northern Corridor does not affect the implementation or effectiveness of the mitigation measures committed to (and completed) by the County under the 1995 HCP.</p> <p>d. As presented to the County thus far, the USFWS analysis of the relative magnitude of the impacts of and conservation measures pertaining to the Northern Corridor does not provide an objective analysis of impacts and conservation values, instead relying heavily on opinions and speculation.</p>	<p>Comment noted. The BLM and USFWS have updated the analysis contained in the Final EIS based on the inclusion of additional design features and mitigation measures for the Northern Corridor.</p> <p>The BLM and USFWS have revised Section 4.2 of the EIS to describe the current status of the Section 7 consultation for the BLM and USFWS. The analysis contained in the EIS and the BLM and USFWS' ongoing Section 7 consultation processes was developed using the applicable law, regulation, and policies based on the actions before each agency.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.35-11	<p>The Omnibus Public Lands Management Act of 2009 (PL 111-11) prevents the Department of Interior from restricting otherwise lawful utility development in the Red Cliffs National Conservation Area that conforms to the HCP Development Protocols and allows the incorporation of the HCP recreation Public Use Plan into the NCA RMP.</p>	<p>The comment misinterprets the direction provided in OPLMA.</p> <p>Section 1974 of OPLMA includes the following text:  <b>(3) INCORPORATION OF PLANS.</b>—In developing the management plan required under paragraph (1), to the extent consistent with this section, the Secretary may incorporate any provision of— (A) the habitat conservation plan; (B) the resource management plan; and (C) the public use plan.</p> <p>The direction provided by this section of OPLMA allows BLM to incorporate the PUP into the Red Cliffs RMP but does not require BLM to do so.</p> <p>Section 1974 of OPLMA also includes the following text:  <b>(h) EFFECT.</b>—Nothing in this section prohibits the authorization of the development of utilities within the National Conservation Area if the development is carried out in accordance with— (1) each utility development protocol described in the habitat conservation plan; and (2) any other applicable law (including regulations).</p> <p>In this instance, OPLMA provides a standard (the development protocols in the HCP) below which BLM cannot authorize utility development in the NCA. However, this language does not prohibit BLM from enacting more stringent restrictions, should the BLM find them appropriate, for the protection of the NCA’s objects and values.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.30-1	<p>First and foremost, the City is opposed to consideration of any alternative that directs additional regional traffic through St. George. The City reiterates its position that the Omnibus Public Land Management Act of 2009 (OPLMA) intended that a northern corridor route be constructed through the Red Cliffs NCA. This commitment was made when Congress adopted Section 1977 of the OPLMA entitled "Washington County Comprehensive Travel and Transportation Management Plan." This section directs the Secretary of the Interior to develop a "comprehensive travel management plan for the land managed by the Bureau of Land Management in the County" and that the plan identify one or more alternatives for a northern transportation route in the County in consultation with the County and the City. Neither Alternatives number 5 nor 6 are a "northern" route through BLM managed property. Alternative number 6, in fact, is not north of the City but entirely within the City's downtown and does not traverse any BLM managed property. Thus, these alternatives do not comply in any way with the clear mandate of the OPLMA.</p>	<p>Alternative preference noted. As outlined in the comment, Section 1977 of OPLMA contains the following text: "In developing the travel management plan, the Secretary shall—(A) in consultation with appropriate Federal agencies, State, tribal, and local governmental entities (including the County and St. George City, Utah), and the public, identify 1 or more alternatives for a northern transportation route in the County."</p> <p>As outlined in Section 1.1 of the EIS, the BLM is considering several alternative northern transportation routes as part of this EIS in response to the UDOT ROW application. The BLM is using the NEPA process to, in addition to analyzing the potential impacts of the proposed ROW, evaluate if the ROW application is consistent with the statutory purposes of the Red Cliffs NCA and whether it is necessary to amend the Red Cliffs NCA RMP to accommodate a ROW, or deny UDOT's application. If a ROW is granted and the RMP is also amended, BLM will then be able to fully consider that ROW as a specific northern transportation route (i.e., a Northern Corridor) as part of a future travel management planning process as Congress has instructed in Section 1977 of OPLMA.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.30-6	<p>Vol 1, Exec Summary; Pg. 1 of cover letter; Para. 3; Line 2</p> <p>It is important to note that the cover letter and subsequent EIS indicates that 1 no-action item and 5 alternatives were provided and assessed; however, alternative 6 (One-way Couplet for Northern Corridor Alignment) is a “no-action” item since the improvements are outside of the NCA and has no impact to the NCA. Any improvements and projects outside of the NCA would be a no-action item to and within the NCA. As such, considering Alternative 6 and assessing it in the EIS with no approvals of St. George City seems to be outside the appropriate authorities given in the NEPA process.</p>	<p>NEPA directs the BLM to “study, develop, and describe appropriate alternatives to recommended courses of action in any proposal that involves unresolved conflicts concerning alternative uses of available resources...”. As outlined in the Council on Environmental Quality’s Forty Most Asked Questions Concerning CEQ’s NEPA Regulations (refer to Question 2), in determining the scope of alternatives to be considered, the emphasis is on what is "reasonable" rather than on whether the proponent or applicant likes or is itself capable of carrying out a particular alternative. Reasonable alternatives include those that are practical or feasible from the technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant.</p> <p>An alternative that is outside the legal jurisdiction of the lead agency must still be analyzed in the EIS if it is reasonable. A potential conflict with local or Federal law does not necessarily render an alternative unreasonable, although such conflicts must be considered.</p> <p>The BLM evaluated Alternative 6 based on these criteria and determined that this alternative was reasonable. Therefore, the alternative has been included for detailed analysis in the EIS.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-26	<p>OPLMA established a staged process for BLM to issue travel management decisions - like the proposed ROW at issue here - and Congress required BLM to first issue a "travel management plan" before issuing individual travel decisions. [P.L. 111-11 Sec. 1977 Washington County comprehensive travel and transportation management plan (b)(2)(A)]. During this travel management planning process, BLM "in consultation with appropriate Federal agencies, State, tribal, and local governmental entities (including the County and St. George City, Utah), and the public, [may] identify 1 or more alternatives for a northern transportation route in the County." [ibid. (b)(2)(A)]. BLM turns this staged process on its head, however, and argues that it may issue a ROW before completing the travel planning process, arguing "[i]f a ROW is granted and the RMP is also amended, BLM will then be able to fully consider that ROW as a specific northern transportation route (i.e. a Northern Corridor) as part of a future travel management planning process as Congress has instructed in Section 1977 of OPLMA." DEIS Section at 1-1.</p> <p>But this approach fails to recognize the importance of having a travel management plan in place to guide future development in an area, and BLM never admits that its TMP is years behind schedule. The TMP should have been completed long before UDOT filed its NCH ROW application, and all TMP designations would have been made consistent with the current SGFO and NCA RMP designations and decisions, without the need for any weakening amendments.</p>	<p>The comment misrepresents the guidance provided by Congress in Section 1977 of OPLMA and incorrectly implies that Congress established a "staged process". Section 1977 of OPLMA states:</p> <p>(2) SCOPE; CONTENTS.—In developing the travel management plan, the Secretary shall— (A) in consultation with appropriate Federal agencies, State, tribal, and local governmental entities (including the County and St. George City, Utah), and the public, identify 1 or more alternatives for a northern transportation route in the County; (B) ensure that the travel management plan contains a map that depicts the trail; and (C) designate a system of areas, roads, and trails for mechanical and motorized use.</p> <p>This guidance does not preclude BLM from evaluating UDOT's ROW application prior to the final completion of the Travel Management Plan. As outlined in BLM Handbook 8342, the components of a designated travel network may include ROW roads granted by the BLM to other entities.</p> <p>As outlined in Section 1.1 of the EIS, the BLM is considering several alternative northern transportation routes as part of this EIS in response to the UDOT ROW application. The BLM is utilizing the NEPA process to, in addition to analyzing the potential impacts of the proposed ROW, evaluate if the ROW application is consistent with the statutory purposes of the Red Cliffs NCA and whether it is necessary to amend the Red Cliffs NCA RMP to accommodate a ROW, or deny UDOT's application. If a ROW is granted and the RMP is also amended, BLM will then be able to fully consider that ROW as a specific northern transportation route (i.e., a Northern Corridor) as part of a future travel management planning process as Congress has instructed in Section 1977 of OPLMA.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-58	<p>There has been no development of the Travel Management Plan; this DEIS seems out of the context of a TMP. The RMP denied the highway but defined an avoidance area for a ROW if there were no other alternatives. But there are other alternatives. And the proposed ROW is larger than the avoidance area, so it cannot be granted. The RMP, upon which the TMP is based, has already denied a highway in the NCA, and has withstood an IBLA appeal on the matter. The application for a ROW has already been precluded by that denial. No circumstances have changed since that denial.</p>	<p>The comment misrepresents the decisions contained in the BLM’s Red Cliffs NCA RMP. The NCA RMP did not “deny the highway,” though it did identify ROW avoidance and exclusion areas in the NCA and establish criteria for issuing a ROW in the avoidance areas. In review of the ROW application submitted by UDOT and the Amended HCP submitted to USFWS by Washington County, the BLM has determined that an amendment to the Red Cliffs NCA RMP may be warranted and is considering potential amendments through this NEPA process. Refer also to response to DP-02.</p>
H.65-34	<p>The DEIS ignores the public scoping comments raising concerns and questions about SITLA’s legal ability to make binding, long-term conservation commitments. As the RCDR, NCA, and proposed Zone 6 become increasingly encircled by developments, rising property values and prospects for lucrative development may compel SITLA to renege on at least some of their conservation commitments. SITLA officials may decide to do so, or the beneficiaries may sue to force that result. As such, the DEIS analysis, and BLM and FWS, improperly rely on these SITLA conservation commitments without any acknowledgement of these substantial risks.</p> <p>Until, and if, SITLA lands in proposed Zone 6 are brought into federal ownership, they are owned by the state on behalf of the trust. The slow pace of acquisition of SITLA lands in the Reserve does not suggest that acquisition will occur quickly in Zone 6, leaving these lands vulnerable to increasing development pressures.</p>	<p>SITLA has the authority to enter into agreements regarding the disposition of lands under its control that are in the interest of SITLA and its beneficiaries. SITLA has indicated that the agency anticipates signing the Amended HCP Implementation Agreement and the BLM and USFWS have no reason to anticipate that the agency would not follow through on this intention. Furthermore, the Amended HCP submitted by Washington County contains a changed circumstance that would be triggered should non-Federal lands within the Reserve be developed.</p> <p>As described throughout the EIS and Amended HCP, SITLA lands within proposed Reserve Zone 6 are anticipated to be permanently protected through long-term acquisition and management of these lands by the BLM or another conservation entity should an alternative that establishes Zone 6 be selected by BLM and USFWS.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-573	<p>We request that the DEIS address the following issues and concerns regarding current land ownership in the Red Cliffs NCA/Reserve and its relationship with the NCH: (a-m found on page 24 of scoping comments)</p> <p>a. At its eastern end, the highway is routed through SITLA land. SITLA claims that the most valuable land in all of Washington County is their inholding inside the Red Cliffs Desert Reserve, above Green Springs. SITLA has also stated that they have the ability to withdraw from the Washington County HCP at will and develop this land because they own land in Zone 6 that they believe could be used as mitigation (Pers. Communications). What plan is in place to make sure that SITLA does not withdraw from the HCP after the NCH is built through their land, increasing access and the temptation to develop?</p> <p>Addressed in DEIS: No</p>	Refer to response to H.65-34.
H.65-35	<p>Finally, these SITLA lands are damaged as documented on pages 3-37 through 3-40 of the Draft EIS, and until brought into federal ownership, protections and restoration would be limited:</p> <p>"Prior to being acquired by the BLM, if applicable, protections on SITLA lands would include fencing along the eastern border of the zone and reducing the number of trails within the property." DEIS at 3-13.</p> <p>This is an insufficient level of protection that fails to meet the "conserve, protect, enhance" requirement for MDT in the Red Cliffs NCA which would be devastated by the NCH. Zone 6 cannot be proposed as mitigation for the NCH because the land is damaged and there is no guarantee of permanent protection.</p>	<p>The comment inappropriately attempts to apply the standard provided by Congress in OPLMA for the entirety of BLM's management of the Red Cliffs NCA to lands outside the NCA in proposed Reserve Zone 6.</p> <p>While the actions described in the EIS within proposed Reserve Zone 6 would provide benefits to many of the same resources that would be impacted by the potential construction of the Northern Corridor across the Red Cliffs NCA (e.g., Mojave desert tortoise), these actions are not intended as and should not be implied to be mitigation of the potential impacts on the objects and values of the Red Cliffs NCA. Additional Northern Corridor design features and mitigation measures have been identified in the Final EIS to protect and conserve the NCA's values.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-49	<p>The new CEQ Final Rule should not be applied to this NEPA process.</p> <p>On July 16, 2020, the Council on Environmental Quality issued a Final Rule amending its NEPA regulations, found at 40 C.F.R. Parts 1500-1508. See Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. 43304 (July 16, 2020) ("CEQ Final Rule"). While the CEQ Final Rule, which becomes effective September 15, 2020, makes a number of revisions and clarifications to regulations applicable to the Northern Corridor EIS process, it does not, nor can it, change the substantive statutory duties and obligations required of BLM and USFWS under NEPA. Furthermore, to the extent that the CEQ Final Rule "updates, modernizes, and clarifies" CEQ's NEPA regulations in a legally defensible manner, it does so consistently with the wealth of case law and federal agency experience developed over the past fifty years, including the cases and guidance cited herein. BLM and USFWS have no legal obligation to apply the CEQ Final Rule to projects initiated prior to the Rule's effective date, which itself is subject to considerable criticism and potential challenge, if applied to the Northern Corridor. To the extent that BLM and FWS apply the CEQ Final Rule and interpret the CEQ Final Rule to alter longstanding standards by which this Project has been assessed up to this late stage, after a decade of consideration in various forms and production of a DEIS under existing regulatory standards, it could, in our opinion, invite significant risk of judicial review on procedural grounds. Despite these new regulations, BLM and the Service are free to continue to apply the prior regulations which were in place at the commencement of this administrative process.</p>	<p>As outlined in the Council on Environmental Quality's regulations at 40 CFR. 1506.13, the revised regulations apply to any NEPA process begun after September 14, 2020. An agency may choose to apply the regulations to ongoing activities and environmental documents begun before September 14, 2020. For this EIS, the BLM and USFWS will continue to apply the Council on Environmental Quality's NEPA regulations in place at the time the NEPA process was initiated through publication of the Notice of Intent on December 5, 2019.</p>
H.65-63	<p>Responding to UDOT's ROW application also furthers the Department of the Interior's policy goals, as stated in the Strategic Plan for Fiscal Years 2018-2022, to "enhance conservation stewardship whereby all levels of government and private landowners work cooperatively together in an atmosphere of mutual respect to achieve shared natural resource management goals."</p> <p>Issue: There is no valid "shared natural resource management goal" in this instance.</p>	<p>The Federal, State, and local agencies collaborating on the development of the EIS and potential implementation of the Northern Corridor and Washington County Amended HCP share many goals, among them the conservation and recovery of the Mojave desert tortoise and meeting Washington County's future transportation needs.</p>

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H.65-78	<p>Handbook at 3-27</p> <p>As part of the Incidental Take Permit issuance for the Habitat Conservation Plan, the U.S. Fish and Wildlife Service must perform an Intra-Service Consultation. The Handbook states:</p> <p>"If listed species that occur in the plan area are dropped from the covered species list for lack of information or are not included in the HCP from the onset, they still must be addressed in the intra-Service section 7 biological opinion to determine if they may be adversely affected by the proposed covered activities. If adverse effects to a species are possible, we should encourage an applicant to include them in the HCP and permit application (see Chapter 7)."</p>	<p>The USFWS has updated Section 4.2 of the EIS with regard to the status of the intra-service Section 7 consultation at the time the Final EIS is published. Refer also to response to H.65-77.</p>
H.65-80	<p>Because the listed rare plants, not to mention the sensitive rare plants are primarily either on BLM-managed lands for multiple use, SITLA lands or private lands. Absent clear protective mechanisms, they remain vulnerable to ongoing and future impacts, including climate change. Based on the guidance from the USFWS' 2016 Habitat Conservation Planning and Incidental Take Permit Processing Handbook as documented above, the listed and sensitive plant species in the area need to be included as covered species under the Washington County HCP amendment and an analysis of impacts to these species provided in a supplemental EIS that is circulated to the public.</p>	<p>An analysis of the potential impacts of the Federal actions analyzed in the EIS on ESA-listed and BLM-sensitive plant species is included in Section 3.3 of the EIS and is being considered as appropriate by the USFWS during intra-service Section 7 consultation. Actions that may impact these species that are not associated with the Federal actions analyzed in this EIS are included in the cumulative impacts analysis in Section 3.28 of the EIS, as appropriate. Refer also to response to H.65-77.</p>

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H.65-104	<p>The DEIS does not disclose why Zone 6 is the best option in the UVRU for additional protection. The DEIS at 2-19, 2-20 and 3-64 states that Zone 6 has been identified as mitigation for the NCH. However, nowhere does the DEIS explain why Zone 6 was chosen or what determined the boundaries of Zone 6. Map 3.5-4a (DEIS Volume 3 at B-51) shows other areas in the vicinity with occupied or potential habitat yet there is no explanation as to why these other areas were not considered for enhanced protection. The missing information listed in this subsection is fundamental to evaluating the suitable habitat and habitat quality in Zone 6 and to evaluating appropriate future management of these lands (regardless if the NCH is constructed).</p>	<p>The lands being considered for inclusion in proposed Reserve Zone 6 were identified in Washington County's Amended HCP. Proposed Zone 6 is part of the Green Valley Analytical Unit subunit of the Upper Virgin Recovery Unit for desert tortoise and includes contiguous habitat for desert tortoise with potential corridors for movement of desert tortoise through public lands across or around the Beaver Dam Mountains that could connect to the Northeast Mojave Recovery Unit. In addition, recent surveys and information collected by the County have found the subpopulation of desert tortoise in the vicinity of Zone 6 to be relatively abundant.</p> <p>The USFWS is reviewing the Amended HCP submitted by Washington County as directed by Section 10(a)(2)(A) of the ESA and its implementing regulations at 50 CFR 17.22 and 17.32, and the 2016 HCP Handbook (USFWS and NMFS 2016). If the HCP submitted by the applicant meets issuance criteria and is statutorily complete, the USFWS shall issue the permit. Refer to response to H.65-7.</p> <p>Additionally, the comment misrepresents the statements made in the EIS. While the potential issuance of a ROW for the Northern Corridor and the changed circumstance included in the Washington County HCP are related, it would be improper to portray Zone 6 as mitigation for the Northern Corridor. The question before USFWS is whether the HCP submitted by the applicant meets ITP issuance criteria.</p>
Form 4-24	<p>BLM should not allow a one-time exception to grant a right-of-way in an Avoidance Area because they haven't met the criteria that would allow them to do this. The Draft EIS fails to show that the NCH can be built without causing the take of federally-listed species; the adverse modification of designated critical habitats; and adverse effects to cultural/historical sites or eligible properties. These conditions have not been met.</p>	<p>Alternative preference noted. The comment misinterprets the potential Red Cliffs NCA RMP amendments being considered by the BLM in this EIS. The amendments would allow the BLM to authorize a ROW without conforming to the criteria for issuing a ROW in ROW avoidance areas contained in decision LAR-13 in the Red Cliffs NCA RMP. Refer also to response to NCA-01.</p>

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14065-8	<p>However public involvement and input regarding the most valuable nonrenewable asset in this world - undeveloped habitat - is severely lacking. If renewed in the future the HCP should pay for and publish in the spectrums two page mailer, a review of the items under discussion, the date and time of next monthly meeting, and the link to all audio recordings of every meeting. The Utah Public Notice web site is completely contaminated with 35 various agencies who all expect that we have the time to get 50 emails a week and keep up on what is going on. When it comes to our public land and this un-renewable asset, due process requires a lot more effort to involve the public in decisions that affect that land.</p>	<p>Comment noted. The comment appears to refer to the regular Habitat Conservation Advisory Committee, or HCAC, established under the 1995 HCP. The measures that Washington County may take to notify the public of the regular meetings of the Habitat Conservation Plan Advisory Committee is beyond the scope of the preparation of the EIS.</p>
H.65-111	<p>Increased development pressure. The DEIS fails to discuss how the BLM-preferred alternative for the NCH is routed through private inholdings (see map excerpted from DEIS below where the purple line depicts Alt. 3 alignment for the NCH and white depicts private and municipal lands). The highway would increase access to these inholdings and could drastically increase development pressure. This is concerning given that the draft HCP explicitly makes the following two statements: "[A]ll Reserve acquisitions will be limited to those transactions involving willing participants. No entity will be required or compelled to sell, donate, transfer, purchase, or receive lands or interest in lands for the purpose of this Amended HCP." and "It is possible that a private landowner or SITLA may seek alternative means of ESA compliance, other than through this Amended HCP, and ultimately develop lands within the Reserve." Draft Amended HCP at vi and 140, respectively.</p>	<p>The agencies do not believe the actions analyzed in the EIS would result in increased development pressure on the non-Federal lands within the Red Cliffs Desert Reserve or NCA. As described in the EIS, the Northern Corridor alternatives that cross the Red Cliffs NCA are proposed as an urban arterial roadway with intersections only at Red Hills Parkway, Cottonwood Springs Road, and Green Spring Drive. They would not provide additional access to private, State, or municipal property. The current non-Federal lands within the Reserve are occupied, designated critical habitat for Mojave desert tortoise and take of Mojave desert tortoise for development purposes on these lands would not be covered under the existing 1995 HCP or Washington County's Amended HCP. Additionally, current zoning of these properties is not favorable for their development. Development of these lands would require the development of an area- or property-specific HCP and likely also rezoning and/or annexation of the lands.</p>

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H.65-124	<p>Under SGFO Amendment Alternative B, 3,471 acres of BLM lands in Zone 6 would be managed as a ROW exclusion area, but it is not clear if this would impact the existing ROW's and would allow for the conversion of existing Navajo Drive and Green Valley Drive into four-lane highways as planned in the Dixie MPO's Draft 2019-2050 Regional Transportation Plan. These future roadways would fragment MDT habitat and adversely impact the MDT in Zone 6. Under Alternative C, future ROW's would be allowed in Zone 6 further fragmenting and degrading MDT habitat and leading to direct mortality. Additionally, habitat within Zone 6 will be adversely impacted by external roadway development and urbanization. This includes the future Western Corridor which would parallel the western boundary of Zone 6, fragmenting MDT habitat in the Red Bluffs ACEC.</p>	<p>Refer to response to DATA-02. The impacts of BLM's potential designation of proposed Reserve Zone 6 as a ROW avoidance or exclusion area on existing ROWs is analyzed in Section 3.20.2.3 of the EIS.</p>
H.65-125	<p>Alternatives B and C allow various levels of industrial activity and development on BLM lands. Under both, mineral location will be allowed until recommended withdrawal is completed. Administrative mineral material mining is also allowed. Under Alternative C but not B some grazing, and target shooting will be allowed. All of these uses impact MDT. The DEIS does not provide evidence that these activities will not singly or aggregately with other Zone 6 activities adversely affect MDT populations and impair the mitigation benefit of Zone 6. Mining is allowed on SITLA lands as is grazing, recreation, shooting, etc. and it is not clear in the DEIS how these uses will be curtailed by SITLA if at all prior to transfer of SITLA lands. The DEIS does not provide evidence that these activities will not singly or aggregately with other Zone 6 activities adversely affect MDT populations and thus the mitigation benefit of Zone 6.</p>	<p>As described in the Amended HCP submitted by Washington County, if proposed Reserve Zone 6 is established, Washington County would provide law enforcement and user education to support the management of Reserve Zone 6. SITLA has indicated the agency's willingness to sign the HCP Implementation Agreement. If Zone 6 were to be established, the Amended HCP would not provide authorization of incidental take of Mojave desert tortoise in Zone 6 because mineral uses are not Covered Activities within the Reserve. Any future development in Reserve Zone 6, authorized under the limitations set forth in the SGFO RMP Amendment and Amended HCP would be required to undergo Section 7 consultation to determine specific effects to any listed species. Any direct or aggregate impacts would be addressed with the review of such pending future development proposal.</p> <p>The potential direct, indirect, and cumulative impacts of the actions analyzed in the EIS on Mojave desert tortoise and its habitat within proposed Reserve Zone 6 are analyzed in Section 3.5 and 3.28 of the EIS.</p>

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H.65-126	<p>The DEIS discloses the high level of recreation in Zone 6 and how recreation, especially OHV use, adversely impacts the MDT. DEIS at 3-38 to 3-39. While the DEIS states that recreational activities will be more closely managed under Alternatives B and C (DEIS at 3-64), it does not explain how recreation will be more carefully managed on SITLA lands prior to acquisition or assure that recreation management with Zone 6 will be adequately protective of the MDT.</p> <p>Further, competitive sporting events will be allowed within Zone 6 under alternatives A through C. The five competitive mountain biking events and jamborees in Zone 6 draw thousands of participants who directly and indirectly impact MDT, causing direct mortality, noise, vibrations, litter and predator subsidies, human interaction and poaching, creation of social trails, destruction of nests, burrows, and vegetation, and more.</p>	<p>As described in the Amended HCP submitted by Washington County, if proposed Reserve Zone 6 is established, Washington County would provide law enforcement and user education to support the management of Reserve Zone 6.</p> <p>All Special Recreation Permits (SRPs) undergo individual review and analysis annually. All events in the proposed Zone 6 have undergone environmental reviews by the BLM and USFWS and are stipulated to protect any and all threatened and endangered species. The BLM conducts a full tortoise inventory/sweep of the racecourse and surrounding area the day before, day of, and day after each event. All competitors and event staff are educated on Mojave desert tortoise and dwarf bear-poppy issues and etiquette and receive an educational packet regarding the resources. All staging (e.g., parking, spectators, and similar) takes place on private land. Most spectators are near the start/finish lines.</p> <p>Refer also to response to A.51-66.</p>
14065-14	<p>The EIS and HCP misrepresents the meaning and intent of the public ominous lands act of 2009. The congressional act set forth the ability for roads to be designated within conservation areas, however, the last paragraph states that any road proposed must comply with ALL OTHER EXISTING LAWS and nothing in this act is intended to modify or replace those compliance standards. This means that any proposed road must be evaluated under NEPA and must comply with the purposes and regulations contained in the specific reserve designation. There is no alternative that would mitigate the impact on the reserve and habitat from the construction of the corridor. The first initial attempt to renew the HCP in 2018 contained the biological opinion stating that even an additional zone would not mitigate the adverse impacts of the proposed corridor. Because the corridor does not comply with the initial reserve purposes, the alternative alongside red cliffs parkway should be selected with little to no impacts.</p>	<p>Alternative preference noted. Refer to response to comments NCA-01, DP-02, and DP-04.</p>

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13535-1	Any plans to change the recreation in Zone 6 and establish a new recreation management plan would need additional NEPA analysis according to what I read in the DEIS.	Comment noted. As described in the EIS, if proposed Reserve Zone 6 is created, the BLM would develop an implementation-level RAMP for proposed Reserve Zone 6. The development of this plan would be subject to compliance with all applicable laws, regulations, and policies, including NEPA.
15067-1	Soil engineering and other impact studies have not been fully or properly performed. Construction in this same area was the cause of flooding and property damage from seasonal storms in 2017.	Comment noted. As described in the applicant's POD, if a ROW for the Northern Corridor is approved, the applicant's final design would include considerations for appropriate drainage and flood control.
14065-1	The draft EIS and POD do not describe how they will comply and what mitigation will be implemented. This evades the thrust of the CEQ's NEPA regulations. 40 C.F.R. 1502.2(d) directs agencies to examine how - not just whether - project alternatives will achieve the requirements of other environmental laws. As a result, the substantive requirements of other environmental laws and expected methods for achieving project compliance with the laws should be rigorously explored and objectively evaluated in a draft EIS so the public has an opportunity to comment on the specific methods that will be used to achieve compliance with those other regulations referred to. The Draft EIS and ROD do not describe the methods of compliance and mitigation that will be used, resulting in a superficial review of all project impacts.	The document available for public review was a Draft EIS. The agencies have not prepared ROD(s) at this time. The comment does not identify specific deficiencies to which the agencies could respond. The EIS and applicants' materials (Amended HCP and POD) include descriptions of how the proposed actions will comply with applicable law, regulation, and policy.
14065-12	The EIS was prepared by the applicant using applicants resources. This typically is not allowed and not preferred, only under certain criteria, where the Secretary determines the criteria is met, then independently does a complete review of the information and studies, so as to prevent any applicant from including studies funded by the applicant, for the very purpose of creating data that supports their own findings. The EIS and Amended HCP are extensive documents, hundreds of pages. If the secretary does not have sufficient resources to independently review and validate the contents of the studies, the Secretary and agency issuing the studies have not fulfilled their obligations under the relevant provisions of NEPA and the ESA.	The EIS was prepared with the support of a third-party contractor. As required by Council on Environmental Quality regulations, a third-party contractor is paid by the applicant(s) and their work is overseen and directed by the Federal agencies. The responsible Federal agencies have furnished guidance, participated in the preparation, and independently evaluated the statement prior to its publication, and take responsibility for its scope and contents. The contractors involved have executed a disclosure statement specifying that they have no financial or other interest in the outcome of the project.

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A.25-23	Establishment of Zone 6 would not ensure that the species' future will be assisted because the county cannot assure, just as they have not been able to assure with the existing Red Cliffs, that they can manage Zone 6 to the benefit of the MDT. Certainly a NC ROW through Red Cliffs should not be added to the problem. Should USFWS determine that adding Zone 6 in their opinion would be of value, that is theirs to decide, but it should not hinge on the approval of a NC ROW.	The USFWS is reviewing the Amended HCP submitted by Washington County as directed by Section 10(a)(2)(A) of the ESA and its implementing regulations at 50 CFR 17.22 and 17.32, and the 2016 HCP Handbook (USFWS and NMFS 2016). If the HCP submitted by the applicant meets issuance criteria and is statutorily complete, the USFWS shall issue the permit.
A.25-28	The BO associated with the approval of the NC ROW should have been made available along with this DEIS for public review. It is not fair to the public to not have all of this information available for review.	The BLM and USFWS have revised Section 4.2 of the EIS to describe the current status of the Section 7 consultation for the BLM and USFWS. The analysis contained in the EIS and the BLM and USFWS' ongoing Section 7 consultation processes was developed using the applicable law, regulation, and policies based on the actions before each agency. When complete, the BLM and USFWS would make appropriate Biological Assessments and Biological Opinions available to the public.
A.25-35	We do not feel that adequate analysis has been done to make consideration of approving a NC ROW and Draft Amended HCP/ITP related to that ripe at this time. The DEIS information above states: USFWS is considering using a modeling approach or other tools to evaluate whether various measures—such as habitat restoration, enhancing or providing for additional passage of Mojave desert tortoise through the Northern Corridor or other existing roadways, and/or other actions that would provide additional conservation or reduce impacts on Mojave desert tortoise— should be included to minimize and mitigate impacts to the Mojave desert tortoise. We feel that this should be done before any NC ROW in Red Cliffs is approved. USFWS should not allow approval of a road through Red Cliffs without considering all measures necessary to “minimize and mitigate impacts to the Mojave desert tortoise.” USFWS has always had the opinion that a road through Red Cliffs would harm the MDT, and that should not change without science to back it up. Also, consideration of additional actions that are beyond those that may occur onsite must be made.	The text in the EIS referenced in the comment has been revised to clarify the tools used by the BLM and USFWS in the review of the actions considered by each agency in the EIS. The USFWS is considering actions that would provide additional conservation or reduce impacts on Mojave desert tortoise, thereby minimizing impacts to the Mojave desert tortoise through the Section 7 consultation process. Refer also to response to A.25-35.

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A.51-3	The trigger to revise the HCP and reissue the ITP is the 2016 expiration date, not UDOT's desire to develop the Northern Corridor. In the absence of UDOT's proposal, the HCP could have been revised and the ITP reissued in response to the expiration date, and 66,301 acres of occupied and potential tortoise habitats could have been identified as available for development. Linking the reissuance of the ITP to the Northern Corridor is contrived to create a fatally flawed relationship between two unrelated actions, where ostensibly one action cannot occur but for the other, which is neither explained nor clearly supported in the DEIS' analyses.	Refer to responses to DP-02 and DP-04.
A.51-9	Estimated tortoise densities have declined substantially in the Reserve from 1999 (Zone 3 = 33.4 tortoises per km <sup>2</sup> ; Zones 2, 3, and 5 = 29.1 tortoises per km <sup>2</sup> ) to 2019 (Zone 3 = 12.3 per km <sup>2</sup> ; Zones 2, 3, and 5 = 17.2 per km <sup>2</sup> ) (this and other references appear in the tables). If the long-term declining trend of tortoise densities continues, the density will be below the amount needed for viability of 3.9 adults per km <sup>2</sup> . Populations of Mojave desert tortoises with adult densities below this number are in danger of extinction. The amended HCP must address these declines rather than serve as a vehicle to promote the Northern Corridor.	Refer to response to DP-04. The viability of Mojave desert tortoise populations in the Amended HCP's Permit Area and Reserve are being considered by USFWS in their consideration of whether or not to issue an ITP to Washington County. Mojave desert tortoise are a long-lived species. Accurate population trends need to be understood in terms of generation length, recruitment, fecundity, and other life-history attributes. Population changes and trends over time are currently being evaluated to better understand causation for changes to populations. Mojave desert tortoise densities have been noted to decline. This decline is hypothesized as largely caused by fire impacts in certain years. Fires in the context of the Reserve can be considered to be episodic events. Although not naturally present in the Mojave Desert vegetation community, there is evidence that the invasion of non-native cheat grass in some parts of the Reserve has shortened the fire cycle and potentially increased the intensity. Data continue to be collected and analyzed to understand population dynamics and will require additional years of data and analysis to draw causal conclusions. More data over time and further analysis are needed to understand the long-term population trend. Extreme and extensive fires can and have resulted in loss of individual Mojave desert tortoise and that is reflected in reports on mortality from fires as well as in annually collected data. Mojave desert tortoise densities in the Reserve remain relatively high compared to

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		<p>densities elsewhere in the range of Mojave desert tortoise, and Zone 3, where most fire impacts have occurred, continues to maintain a strong population. The statement by UDWR (UDWR 2018) that the population remains stable reflects that outside of the episodic impact of loss of individuals from any specific fire, the overall population in terms of its reproduction, generation length, recruitment, and other factors considered in population trends, are for the most part as yet unchanged or stable. This should not be construed as diminishing the impact of fires or the importance of responding to fire and those episodic losses. Declines attributed to fires are understood by the HCP Partners working to conserve desert tortoise and are partly being addressed through proposed restoration as part of the Amended HCP. The HCP under the 1996 ITP incorporated changes in response to fire and other protocols as well as initiating a program for Mojave desert vegetation community restoration and continues to do this. This effort will require time and commitments moving forward. These changes are being incorporated into current adaptive management considerations for science and management and would continue to be part of the Amended HCP and the Reserve under a new ITP. These commitments to restoration by the County and HCP Partners are described in the Amended HCP and elsewhere in the proposed Northern Corridor project description and conservation measures. Furthermore, the HCP Partners have been successful at managing the Red Cliffs Desert Reserve for the benefit of desert tortoise for more than 20 years, including land acquisition, land management, and animal disposition, during which time the County has remained compliant with the 1996 ITP according to the 1995 HCP.</p>

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A.51-11	<p>Recurring, ubiquitous wildfires, persisting raven predation on tortoises, proliferation of weed species, documented poaching of tortoises, the injury and death of 146 tortoises crushed on existing roads inside the Reserve, the stockpiling of plan fees documented at more than seven million dollars when needed conservation activities have remained unfunded, and now active planning for the Northern Corridor are evidence that the 1995 HCP is not functioning as intended. We contend that a 41% decline in tortoises in the Reserve since 1995 is evidence that the HCP is not functioning as intended, and in fact, needs to be bolstered without accommodating the Northern Corridor.</p>	<p>Refer to responses to DP-04 and A.51-9. The outcomes of the 1995 HCP and observed Mojave desert tortoise population trends and threats are being considered by USFWS in their consideration of whether or not to issue an ITP to Washington County.</p>
A.51-2	<p>The DEIS (see Attachment A for a list of acronyms used in our letter) has failed to substantiate or demonstrate a clear nexus between Washington County pursuing the HCP/ITP and UDOT's proposal for the Northern Corridor. The ITP has functioned for 24 years, between 1996 and 2020, and only provisionally since 2016. Since the USFWS would issue the 10a permit, not the BLM, the documents have failed to convince us that the BLM's No Action Alternative (a NEPA requirement) necessarily precludes USFWS from issuing the ITP (a FESA requirement).</p>	<p>As described in Section 2.6 of the EIS, the USFWS's decision of whether to issue an ITP is determined by whether permit issuance criteria are met. If permit issuance criteria are met, USFWS could select the action alternative independent of any BLM decision. The USFWS is reviewing the Amended HCP submitted by Washington County as directed by Section 10(a)(2)(A) of the ESA and its implementing regulations at 50 CFR 17.22 and 17.32, and the 2016 HCP Handbook (USFWS and NMFS 2016). If the HCP submitted by the applicant meets issuance criteria and is statutorily complete, the USFWS shall issue the permit.</p>
H.65-215	<p>The penalties of not approving the Northern Corridor ROW (Washington County would not implement the amended HCP and would cease implementing the 1995 HCP; no future funding for Mojave tortoise conservation including facilitating land acquisitions, monitoring of tortoise relocations, fence maintenance, law enforcement, outreach, recreation manager or other tortoise conservation actions) show that there is a lack of commitment to the Zone 6 area. It is only being used as a bargaining tool. The penalties that come with not approving the NCH show that there is a lack of commitment to the Zone 6 area. Sadly, it is only being used as a bargaining tool.</p>	<p>Refer to response to A.51-2.</p>

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A.51-25	<p>1 Comment: The Council does not understand, recognize, or support the need to link the development of the Northern Corridor to the reissuance of the 10a permit. In our estimation, these are separate actions; the 10a permit could very well be reissued without constructing the new freeway, and by linking these two separate actions together, BLM, USFWS, and other involved agencies are promoting a fatally-flawed, Catch-22 scenario that constrains the alternatives analysis and predetermines development of the freeway through the Red Cliffs Desert Reserve. The Council asserts that the No Action Alternative could simultaneously result in denial of UDOT's application AND result in reissuance of the 10a permit; that though interrelated, these are not mutually exclusive actions as stated in the DEIS (page 2-11 of Vol 2 of the DEIS), and that they should be reconsidered in the Final EIS as two separate actions. In this scenario, the UDOT request would be denied but the 10a permit could be reissued; shackling the two separate projects together seems like a scheme rather than a necessity.</p>	<p>Refer to responses to A.51-2, DP-02, and DP-04.</p>

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A.51-38	<p>12 2-11 2.4.1</p> <p>Text: “Under this [No Action] alternative, the USFWS would not reissue an ITP to Washington County authorizing the take of Mojave desert tortoise subject to the conservation measures in the Amended HCP, and the ITP issued based on the 1995 HCP would expire.”</p> <p>Comment: The DEIS fails to support this statement. The Council asserts that the revised HCP and reissued 10a permit can both be pursued under the No Action Alternative, which is a federal requirement of the BLM not a federal requirement under Section 10(a)(1)(B) of FESA. Although there is obvious BLM involvement in the Reserve, revising the HCP and reissuing the 10a permit are actions that can be pursued by Washington County in the absence of the UDOT freeway alternative. Linking these separate actions together unnecessarily federalizes the 10a permit process, which is a nonfederal approach to authorized take concomitant with conservation. Whereas establishing the Zone 6 satellite reserve is a compromise that shackles the reissuance of the ITP to BLM management, the No Action alternative does not prohibit the reissuance of the ITP, as the DEIS asserts.</p>	<p>Refer to response to A.51-25.</p>
A.51-33	<p>7</p> <p>Cover page</p> <p>Text: “Because the issuance of a right-of-way would not be in conformance with the existing Red Cliffs NCA RMP, the BLM is also considering potential amendments to the Red Cliffs NCA RMP necessary to approve the right-of-way.”</p> <p>Comment: The Council asks that the Final EIS supplement the information in the DEIS by listing previous decisions in those portions of Utah occupied by tortoises where BLM RMPs have been modified to avoid noncompliance. The purpose of this request is to analyze what seems to be an ill-advised precedent; i.e., if a controversial project such as the Northern Corridor is not in compliance with an RMP, how often has BLM modified its RMPs to facilitate compliance? Specifically, but for the Northern Corridor, would there be the need to revise the two RMPs?</p>	<p>Refer to response to NCA-01. As described in Section 1.3 of the EIS, the purpose of and need for BLM’s consideration of an amendment to the Red Cliffs NCA RMP is related to the BLM’s consideration of UDOT ROW application for the Northern Corridor.</p> <p>BLM’s RMPs in Utah include open, avoidance, and exclusion ROW area designations within Mojave desert tortoise habitat. Previous decisions related to ROWs occupied by Mojave desert tortoise are not relevant to the BLM’s decision to be made in this EIS.</p>

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A.51-34	<p><b>8</b> <b>ES-1</b> Text: “The Utah Department of Transportation (UDOT) applied to the Bureau of Land Management (BLM) for a right-of-way (ROW) grant on September 18, 2018, to construct a multi-lane, divided highway (referred to as the Northern Corridor) across the Red Cliffs National Conservation Area (NCA).” Comment: Where does the DEIS outline the previous failed attempts to construct the Northern Corridor? Which entities have previously recommended or promoted its construction? Having failed in all previous attempts, this latest attempt involving UDOT seems like one last, new attempt to construct a freeway that has been rejected in every previous attempt. In the appropriate amended section of the Final EIS, we ask that the previous attempts be documented including responses of the BLM and USFWS, in particular, which have (until now) always opposed a Northern Corridor through the Reserve. We note that we specifically asked at the top of page 13 in our scoping comments (Desert Tortoise Council 2020) that the history of failed attempts to construct the Northern Corridor through the Reserve be documented in the DEIS. Failure to do so renders this DEIS deficient.</p>	<p>Refer to responses to DP-02 and DP-04. Previous evaluations of the Washington County HCP and Northern Corridor were made based on the circumstances before the agencies at the time. The BLM and USFWS are evaluating the current applications based on the circumstances described in responses to DP-02 and DP-04.</p>
A.51-36	<p><b>10</b> <b>ES-2</b> <b>ES.1</b> Text: “The ROW application is designed to address the growing [human] population and transportation needs in Washington County.” Comment: The Council offers the following statement as being equally important to renewing the RMP, reissuing the HCP, and denying all action alternatives that bisect the Reserve: “The ROW application is being denied to address, in part, the declining populations of desert tortoises within the Reserve, recent habitat impacts that have undermined the quality of habitat, and persisting inability of the Reserve to provide conservation that is commiserate with the anticipated take level.”</p>	<p>Comment noted.</p>

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A.51-44	<p>19 2-22 2.5 Table 2.5-1</p> <p>Text: “Major goals [of the existing RMP] include the preservation and protection of the desert tortoise and its habitat so as to achieve full recovery of the tortoise as well as other listed or sensitive species found within the Upper Virgin River Recovery Unit (UVRU).”</p> <p>Comment: It does not appear that either Alternative B or C of the RMP modify this “major goal” identified in the existing RMP. Table 2.5-1 identifies many changes that would affect management within the new Zone 6 satellite reserve but fails to indicate how this “major goal” would be upheld within the existing Reserve; or, how it will be undermined by the development of the Northern Corridor within the Reserve. Please address this deficiency in the Final EIS.</p>	<p>The goal referenced in this comment also states that “The BLM will work collaboratively with local, State, and Federal partners to accomplish the goals and the objectives of the Washington County HCP and Red Cliffs Desert Reserve.”</p> <p>While the 1999 SGFO RMP is no longer applicable to the Red Cliffs NCA with the approval of the Red Cliffs NCA RMP, the BLM is achieving this goal through its ongoing support and participation as a participant and partner in the Washington County HCP, support for land acquisitions and land management within the Reserve, support for land management practices and habitat projects that improve Mojave desert tortoise habitats, and consultation with USFWS regarding actions that the BLM is considering in potential Mojave desert tortoise habitat.</p>
A.51-45	<p>20 2-24 2.5 Table 2.5-1</p> <p>Text: “Do not authorize SRPs for competitive motorized events in proposed Reserve Zone 6.”</p> <p>Comment: The Council supports this prescription in Alternative B and does not find that competitive motorized events are consistent with recovery-level tortoise conservation. Nor do we believe that continuing to allow competitive nonmotorized events in Zone 6 to be consistent with tortoise conservation and recovery unless the BLM avoids or alleviates the impacts of spectators, which is not addressed in the DEIS. Whereas the BLM currently minimizes participation to “up to 300 participants,” there is no indication as to how many non-participant visitors are allowed, which may far exceed the number of participants and result in impacts that are certainly not restricted to roadways on which the events occur. The BLM must identify the number of allowable spectators and measures that will minimize impacts by these spectators.</p>	<p>The issuance of SRPs are implementation-level actions. The BLM reviews each SRP application and develops appropriate measures to avoid, minimize, or mitigate impacts of the proposed activities at the time the SRP application is received. The text in the potential RMP amendment does not preclude BLM from denying an application that would have unacceptable impacts on any resource on BLM-administered lands. Refer also to response to A.51-66.</p>

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H.65-7	<p>Of the choices provided, the coalition supports Alternative B for SGFO RMP Amendment, if implemented independently of a Northern Corridor Highway (NCH) through the Red Cliffs National Conservation Area. However, as discussed elsewhere in these comments, the use in Zone 6 has been intensive, and any management prescriptions must ensure that adequate habitat is provided for MDT. BLM must analyze whether, given the current trend of declining MDT populations, proposed Zone 6 might need to be larger or configured differently to provide the optimal conservation and chances of recovery for MDT. This recommendation advances USFWS 2011 Recovery Plan Objective 3 and Recovery Plan Actions 2.6 and 2.11.</p>	<p>Alternative preference noted. As described in Section 1.3.3 of the EIS, the BLM's need to consider an amendment to the SGFO RMP in the current action is associated with the BLM's support for the proposed Washington County HCP and the associated HCP Implementation Agreement. Analyzing a larger or differently configured Zone 6 or considering the Zone 6 SGFO RMP amendments without the Northern Corridor would not meet the BLM's purpose and need for action.</p>
A.51-70	<p>46 3-57 3-144 3.19 2.5-15</p> <p>Text: "All habitats within the Reserve below 4,500 feet in elevation are considered currently occupied Mojave desert tortoise habitat, and all habitats between 4,500 feet and 5,000 feet are considered potential future occupied habitats."</p> <p>Comment: Though difficult to tell from Map 2.5-15, which does not show contours or elevations, it appears that Boomer Hill may be the highest elevation in the Red Bluffs ACEC, which is at 3,800 feet elevation. Why, then, are only 2,345 acres of the 6,168-acre Red Bluffs ACEC (38%) being considered for Zone 6 management when the entire ACEC is well within the elevational range the DIES identifies as occupied by desert tortoises? Furthermore, what is the undisclosed reasoning for including the SITLA lands in the Zone 6 satellite reserve without including the western 3,823 acres of the ACEC, which are within the correct elevational range for tortoises and likely less impacted than the SITLA lands?</p>	<p>The lands being considered for inclusion in proposed Reserve Zone 6 were identified in Washington County's Amended HCP.</p> <p>As required by law, the USFWS is reviewing the Amended HCP submitted by Washington County to evaluate whether it includes all elements as required by ESA Section 10(a)(2)(A) and satisfies the issuance criteria for incidental take authorization that are outlined in Section 10(a)(2)(B). If the HCP submitted by the applicant meets issuance criteria and is statutorily complete, the USFWS shall issue the permit.</p> <p>Refer also to response to H.65-7.</p>

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H.65-137	13. The DEIS must explore additional options for Zone 6 in the SGFO amendment to provide a range of reasonable alternatives for Zone 6. NEPA requires agencies to analyze a range of reasonable alternatives. The BLM must consider a range of alternatives for a potential Zone 6. The alternatives should provide a variety of configurations and sizes including at least one alternative that optimizes the conservation and recovery of the MDT.	Refer to response to A.51-70.
A.51-89	64 H-2 H.2.1 Text: “There is no current ‘scientific proof of resource degradation’ specifically due to livestock grazing within Zone 6.” Comment: With regards to the above statement, may we interpret this to mean that the BLM has performed range health assessments that demonstrate no grazing impacts? Or, that these data do not exist as range health data have not been collected? As documented in a dozen or more references in Appendix B of the Council’s scoping comments (Desert Tortoise Council 2020), we know that cattle grazing affects habitats and tortoises, so we assume this statement is based on absence of data. Please clarify.	The BLM has added additional information to Section 3.21 of the EIS. As described in Section 3.21, no use of the Box Canyon Allotment has occurred since 1988. Likewise, no grazing has occurred on the Curly Hollow Allotment since at least 2002. Therefore, the BLM does not have evidence that livestock grazing has degraded resources in proposed Reserve Zone 6.

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A.51-90	<p>65 App H Comment: We contend that Appendix H is deficient in its consideration of inconsistencies with numerous regulatory decisions and documents, as follows. (1) On a gross level, the Northern Corridor is inconsistent with and in violation of the intent of the 1995 HCP and implementation of the 1996 ITP. The function of the 1996 ITP over the past 24 years has been predicated on the protection of the Red Cliffs Desert Reserve. To date, the ITP has authorized development of 22,822 acres of habitat and displacement of more than 500 tortoises in exchange for protection of the Red Cliffs Desert Reserve. Only Alternatives 1 and 6 are consistent with these existing agreements. Even so, rather than identify these inconsistencies with the HCP, Appendix H unaccountably claims there are no inconsistencies. We note that more than half of the goals and objectives for the function of the Reserve (see Section 2.1 in the Amended HCP) are undermined by introducing the freeway into the Reserve, which is referred to as the “central conservation measure” on page 2 and elsewhere in the Amended HCP. (2) Appendix H fails to acknowledge or elucidate how development of the Northern Corridor is in violation of the OPLMA (page 3-141 of Volume 2) and undermines prescriptions given in BLM Manual 6260 as they relate to NCAs (pages 3-141 and 3-142 in Volume 2). We believe that Appendix H fails to address inconsistencies of all action alternatives with the (3) Federal Land Management Policy Act (FLMPA) and the Federal Endangered Species Act (FESA), particularly as it relates to inconsistencies with both the (4) 1994 Recovery Plan (USFWS 1994) and 2011 revised desert tortoise Recovery Plan (USFWS 2011), and (5) adverse modification of tortoise Critical Habitat [(8 FR 7214), (16 USC §1536(a)(2)), (50 CFR §402.02)]. Appendix H in the Final EIS must be amended to identify and discuss these inconsistencies that are not currently addressed.</p>	<p>Appendix H focuses on Inconsistencies Between the Northern Corridor Project and the Land Use Plans, Policies, and Controls of Washington County and the City of St. George. The consistency of the project with Federal plans and policies is evaluated throughout the EIS. Consistency with the Mojave desert tortoise recovery plan and final rule designating critical habitat for the species is being considered as described throughout the EIS (e.g., refer to Section 3.5) as well as by the USFWS during Section 7 consultation and the USFWS' development of findings regarding the County's Amended HCP and request for an ITP. Refer also to responses to NCA-01, DP-02, and DP-04.</p>

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H.65-127	<p>As stated above, unauthorized travel by OHVs and bikes is a significant problem in Zone 6. Over one-third of the routes in Zone 6 are unlawful. DEIS at 3-129. Social trails damage MDT habitat including nest sites, burrows and vegetation. The DEIS provides no compelling evidence that the BLM is capable of controlling unlawful social trailing and the impacts it causes to MDT and if past is prologue, the BLM will not be capable generally of controlling unauthorized activities effectively.</p>	<p>Comment noted. The BLM is not making route-specific decisions in the EIS. However, the BLM is evaluating the implementation of criteria for future implementation-level route designation. While the BLM acknowledges the current presence of user-created routes in proposed Reserve Zone 6, this issue will be addressed through the development of the Comprehensive Travel and Transportation Management Plan for the BLM St. George Field Office. Additional educational and law enforcement resources that would be provided by Washington County should proposed Reserve Zone 6 be created would help promote public compliance with route designations.</p>
H.65-136	<p>The DEIS at 2-19, 2-20 and 3-64 states that Zone 6 has been identified as mitigation for the NCH. However, nowhere does the DEIS explain why Zone 6 was chosen or what determined the boundaries of Zone 6. Map 3.5-4a (DEIS Volume 3 at B-51) shows other areas in the vicinity with occupied or potential habitat yet there is no explanation as to why these other areas were not considered for enhanced protection. The proposed Zone 6 is small, experiences heavy recreational use, is open to grazing, and, while already fragmented from other MDT habitat patches, will become more isolated with increased proximal urbanization (facilitated by the future Western Corridor).</p> <p>The DEIS must explain its reasoning for the proposed Zone 6 configuration and location. It should list and rank remaining MDT habitats in the plan area, identify the optimal boundary for a potential satellite reserve, and explain the rationale. In doing so, the DEIS should consider current activities and land condition and apply principles of conservation biology for reserve design. These include maximizing size, core/edge ratio, intactness, and connectivity to other protected habitats (e.g., see Forman and Godron 1986; August et al. 2002; Groves et al. 2002; Fayrig 1997).</p>	<p>Refer to response to A.51-70.</p> <p>The factors listed in the comment are being evaluated by the USFWS in their determination of whether the Amended HCP submitted by Washington County meets ITP issuance criteria.</p> <p>Additionally, the comment misrepresents the statements made in the EIS. While the potential issuance of a ROW for the Northern Corridor and the changed circumstance included in the Washington County HCP are related, it would be improper to portray Zone 6 as mitigation for the Northern Corridor. The question before USFWS is whether the HCP submitted by the applicant meets ITP issuance criteria.</p>

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H.65-138	<p>FLPMA requires that the Secretary in managing the public lands shall take any action necessary to prevent unnecessary or undue degradation of the lands. 43 U.S.C. § 1732(b). BLM regulations in describing ways to prevent unnecessary or undue degradation specifically include "Attaining the stated level of protection or reclamation required by specific laws in areas such as the California Desert Conservation Area, Wild and Scenic Rivers, BLM-administered portions of the National Wilderness System, and BLM-administered National Monuments and National Conservation Areas." 43 CFR §3809.415. The construction of the NCH is clearly detrimental to the National Conservation Lands System, the Red Cliffs National Conservation Area and its purposes, the Red Cliffs Desert Reserve, the UVRU, and the MDT. In bifurcating a core MDT area within Red Cliffs NCA and Reserve that is considered integral to the integrity and viability of the UVRU and thus to the MDT range-wide, the NCH will clearly result in undue and unnecessary degradation on our public lands. Thus, the agencies would violate FLPMA if they were to authorize the ROW and enable the NCH.</p>	<p>The statements regarding the analyses of the potential impacts on Mojave desert tortoise misrepresent the conclusions stated in Section 3.5. If a ROW for the Northern Corridor is issued, the BLM will require the application of design features and mitigation measures and would include stipulations, terms and conditions, and Notice to Proceed items to ensure the avoidance of unnecessary and undue degradation of the public lands. Refer also to responses to NCA-01, DP-02, and DP-04.</p>
H.65-139	<p>BLM Manual establishes that BLM policy is to further the conservation and/or recovery of federally listed species. BLM Manual 6840.06. Numerous sections of the Manual provide direction on how to do this - e.g., Section 2 directs BLM to incorporate Recovery Plan objectives and actions into BLM plans and projects. The NCH impedes the conservation and the recovery of the MDT and thus is in violation of the Manual.</p>	<p>The comment confuses the BLM's broad responsibilities to support the conservation of ESA-listed species. These responsibilities are described in detail in BLM Manual 6840, and include Federal, State, and local agency cooperation and consultation with USFWS regarding the potential impacts of the BLM's actions on ESA-listed species. The BLM's broad responsibilities for conserving ESA-listed species are carried out through but not limited to the allocations of resources during the development of RMPs, incorporation of conservation actions and best management practices into actions the agency authorizes or carries out, and proactive management of habitat to support ESA-listed species. The BLM St. George Field Office and Red Cliffs NCA are engaged in many such actions to support long-term Mojave desert tortoise conservation and recovery.</p>

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H.65-211	<p>Zone 6 The county's inabilities include:</p> <ul style="list-style-type: none"> <li>a) Funding the acquisition of 3X the acreage of land within the corridor ROW</li> <li>b) More stringent management and enforcement of recreational activities <ul style="list-style-type: none"> <li>– Staff added</li> <li>– Fencing on the Eastern border and Navajo Road</li> <li>– Additional Law Enforcement funds</li> <li>– Areas for rock climbing and potential restrictions will be identified</li> <li>– Reduction of total mileage of recreational access routes by more than half</li> <li>– Closing social trails</li> <li>– Camping either more limited or eliminated</li> <li>– Increased fire management</li> </ul> </li> <li>c) Grazing retirement</li> <li>d) Community education and outreach</li> </ul>	<p>Comment noted. The actions included in the comment are included within the County's proposed Amended HCP. The agencies are evaluating the County's abilities to carry out the Amended HCP based on many factors, including the County's performance in carrying out commitments contained in the 1995 HCP.</p>
H.65-212	<p>It was originally proposed that the multi-use recreation would be able to exist without change, but now Washington County is proposing restrictions and law enforcement. There will be opposition to such restrictions, making it an extremely difficult job to keep up with enforcement. The DEIS fails to adequately explain how law enforcement will be handled on 3,225 acres of SITLA lands, meaning that damaging recreational uses could continue occurring in half of Zone 6.</p>	<p>As outlined in the Amended HCP submitted by Washington County, law enforcement on SITLA lands within proposed Reserve Zone 6 would be a responsibility of Washington County.</p>
H.65-214	<p>It was originally proposed that all this multiuse would be able to exist without change but now Washington County is proposing restrictions and law enforcement. This seems right if this was to be an addition which truly was to protect the Mojave Desert Tortoise, but it will most likely be met with opposition to those rules. It will be a fulltime job to try to keep up with rule enforcement.</p>	<p>Refer to responses to H.65-211 and H.65-212.</p>

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H.65-245	<p>BLM's own analysis demonstrates that Alternative 3 would imperil the survival of desert tortoises in the NCA and Reserve, so BLM cannot legally grant the ROW under the ESA. And this analysis also demonstrates that FWS cannot legally render a no jeopardy BO for Alternative 3, nor grant the county an ITP that is based on a HCP improperly conditioned upon Alternative 3 's approval.</p> <p>If BLM decides to grant a ROW to UDOT for Alternative 3, or any Alternative inside the NCA, BLM would violate BLM's mandatory obligation to conserve, protect, and enhance the ecological, scenic, wildlife, recreational, cultural, historical, natural, educational, and scientific resources of the National Conservation Area and to protect the Mojave desert tortoise as required under the OPLMA of 2009.</p>	<p>Refer to response to NCA-01. The statements regarding the BLM and USFWS' analyses of the potential impacts on Mojave desert tortoise misrepresent the conclusions stated in Section 3.5 of the EIS.</p>
H.65-270	<p>There appears to be a pre-decisional bias exhibited by the Washington County purchases in September 2019, three months before NEPA scoping starts:</p> <ul style="list-style-type: none"> <li>• \$1.35M purchase by Washington County from Robert Brennan for 29.53-acres inside the Red Cliffs Desert Reserve. This parcel falls within the proposed alignment for the Northern Corridor Highway</li> <li>• \$1M purchase by Washington County from Robert Brennan of 22.73 acres inside the Red Cliffs Desert Reserve adjacent to the proposed alignment for the Northern Corridor Highway</li> </ul>	<p>Comment noted.</p> <p>Washington County has been supporting the acquisition of non-Federal in-holdings within the Red Cliffs Desert Reserve since the Reserve was established by the 1995 HCP and has engaged in several transactions with willing landowners.</p> <p>The evaluation of specific acquisitions of non-Federal lands within the Red Cliffs Desert Reserve is beyond the scope of the EIS.</p>

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H.65-282	<p>Unfortunately, BLM typically prioritizes market services like hard rock mining or oil and gas over non-market values because their benefits are typically monetary and easier to estimate.</p> <p>However, Congress crafted FLPMA to require the BLM to consider non-market values in all land use planning decisions. As a result, BLM is required to, among other things, consider "the long-term needs of future generations" for things like recreation and "natural scenic, scientific and historical values" when developing management plans. 43 U.S.C. § 1702(c). Specifically, the BLM must ensure:</p> <p>[The] harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output.</p>	<p>Comment noted. The BLM and USFWS' analysis contained in the EIS considers both market and non-market values and conforms with both agencies' regulations and policies.</p>
H.65-324	<p>"In particular, under OPLMA Subtitle O, Section 1977, the BLM is required to develop a comprehensive travel management plan for the land managed by the BLM in Washington County and, in doing so, to "identify one or more alternatives for a northern transportation route" in the county." Issue: 6. Again, OPLMA talks about a route in the county, not necessarily in the NCA. Any route in the NCA should be denied, especially since there are superior alternatives outside the NCA.</p>	<p>Refer to response to NCA-01.</p>
H.65-322	<p>"Red Cliffs National Conservation Area Resource Management Plan (2016): Completed by the BLM, the document analyzes all potential ROW within the NCA at a land management planning level and chooses an alternative management strategy that best achieves the purpose and requirements of the guiding legislation and regulations found in FLPMA and OPLMA. The Red Cliffs NCA RMP includes the Northern Corridor as a new ROW under Alternative D. Alternative D planned for a ROW to be granted within the NCA and higher intensity of access and resource use across the NCA. Alternative D was not chosen as the Preferred Alternative as it did not satisfy the planning and land management criteria set forth in guiding legislation and public scoping." Issue: 4. Nothing has changed since this ruling, upheld by the Interior Department Appeal. The highway ROW still should not be granted.</p>	<p>Refer to responses to DP-02, DP-04, and NCA-01.</p>

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H.65-334	<p>5. Transportation and Resource Considerations                      5.1 Transportation Analysis                      5.1.1 Transportation Results                      Table 4. Transportation Analysis: 2050 Evening Peak Hour Intersection LOS Results                      Table 5. Transportation Analysis: 2050 Evening Peak Hour Travel Time Results Issue:                      17. Just stating the obvious conclusion from tables 4 and 5: alternatives outside the NCA perform as well or better than those inside the NCA. The purpose of the NCA does not have to be violated in order to accommodate projected traffic.</p>	<p>Comment noted. The performance of each alternative as presented in the traffic analysis is one of many factors the BLM is considering in the evaluation of the ROW application submitted by UDOT.</p>
H.65-484	<p>11- Cumulative Impacts- Adding to Human Growth/Development: The DEIS must address impacts related to development of BLM-NCA and Reserve lands that add cumulatively to the human growth and development in the region, including: a. Past projects. The DEIS should disclose the number of taken tortoises associated with the expansion of Red Hills Parkway from 2 to 4 lanes, and for all projects that have been approved inside the Reserve/NCA since 1995. b. Past projects. The HCP has facilitated rapid growth and development in Washington County. The number of take acres developed since the implementation of the HCP needs to be disclosed. c. Recent projects. Recent development in Sienna Hills caused multiple tortoises to be removed in in 2018. The DEIS must disclose the take of tortoises in other recent developments. d. Current projects. Special attention must be given to construction of the Washington Parkway Extension (WPE) which would link to the NCH if the NCH ROW is granted. Take for this WPE project must be monitored and documented. e. Future projects. These include, but are not limited to: continued development on a number of acres yet to be determined during 2020 HCP renewal; the proposed Lake Powell Pipeline; paving of the Babylon Road through Zone 4 where over 485 tortoises have been translocated since 1995; and construction of the Western Corridor and extensions of Navajo Dr. and Green Valley Dr. that would impact or fragment Zone 6. f. Future projects including addition of utilities to the NCH ROW. Projects like the proposed Dominion Energy Gas Line that would have co-located a natural gas pipeline in the NCH ROW are concerning. g. Future impacts from maintaining the NCH ROW.</p>	<p>As described in Section 3.28 of the EIS, the impacts of the past and present actions contribute to the current condition and are captured through the description of the affected environment for that resource. Section 3.28 of the EIS includes a list of reasonably foreseeable future projects, which are analyzed in the cumulative impacts analysis.                      The detailed information requested in the comment regarding the impacts of past actions is not required to be disclosed in the EIS, because it is captured in the current condition of resources as described above.                      Refer also to responses to DATA-02, DP-02, and DP-07.                      The analyses contained in Chapter 3 of the EIS include an assessment of the potential impacts of maintaining the proposed Northern Corridor, if a ROW were issued. All maintenance activities would occur within the ROW granted to UDOT. Similarly, the analysis of the potential Red Cliffs NCA RMP amendments includes the potential for impacts resulting from future utility development, where appropriate.</p>

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	<p>Addressed in the DEIS: No. The DEIS fails to adequately address the cumulative impacts of past projects in Red Cliffs because it only states that 200 acres of critical habitat inside the Reserve have been lost to covered activities in the duration of the 1995 HCP. It does not disclose the number of MDT that were taken or the indirect impacts these activities had on habitat.</p> <p>The DEIS does not disclose the number of MDT taken with the expansion of Red Hills Parkway or other projects approved within the Reserve since 1995.</p> <p>The DEIS failed to disclose the take associated with recent development and recently-completed projects including the Washington Parkway Extension.</p> <p>Importantly, the DEIS fails to address the pre-decisional bias that appears to have interfered with the selection of NCH alternatives caused by the WPE. This project should have been evaluated as a connected action to the NCH because its purpose is to link to the NCH as documented in the Dixie MPO's 2019-2050 Regional Transportation Plan maps<sup>92</sup> and as described in the Washington City Transportation Master Plan. <sup>93</sup> Given these admissions linking the WPE to the NCH, it seems obvious that these projects are "connected actions" and "cumulative actions" under 40 CFR Section 1508.25 (a)(1) and (2), and therefore should have been analyzed together through one comprehensive NEPA process. However, the WPE was approved under a Categorical Exclusion in late summer 2019, and construction was completed in summer 2020 before NEPA was completed for the NCH. This introduced pre-decisional bias into the selection of alternatives for the NCH and may have influenced BLM's preferred alternative for the NCH.</p> <p>Finally, the DEIS failed adequately consider future projects like the Lake Powell Pipeline. It did not address the Babylon Road, the full Western Corridor, or the extensions of Navajo and Green Valley Dr. in the proposed Zone 6. The DEIS did discuss the co-location of utilities within the NCH ROW, but did not adequately address the risk. It discussed increased risk of predation by ravens that perch on power lines but failed to discuss the impacts of blasting and trenching for underground utilities. The DEIS also failed to address future impacts of maintaining the NCH ROW.</p>	

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H.65-563	I-Provide baseline data on impacts existing ROWs have caused to the tortoise, other special status species, and the NCA's 9 resource values prior to calculating NCH ROW-specific impacts. Addressed in the DEIS: Not adequately addressed. The DEIS discloses that there are 38 existing ROWs on BLM lands in the RCNCA, but fails to disclose the impacts of these ROWs in terms of habitat fragmentation, adverse modification, predator subsidies, etc.	As described in Section 3.28 of the EIS, the impacts of the past and present actions contribute to the current condition and are captured through the description of the affected environment for that resource.
H.65-564	2- Inventory Baseline Conditions: In the DEIS, establish baseline conditions by conducting inventories for each special status species protected inside the Red Cliffs NCA and for each of the 9 resource values the Red Cliffs NCA was designated to protect. Addressed in the DEIS: No.	Section 3.5 of the EIS describes inventories of special status species and their habitats, Section 3.13 describes inventories of visual resources, and Section 3.14 describes surveys of cultural and historic resources conducted to support the development of the EIS. The BLM's policies do not require inventories of all species or resource values that may be impacted by a particular action to complete a NEPA analysis for that action.
H.65-569	2- Determine impacts from future utility developments that could be constructed in or near the NCH ROW, including applications to expand this ROW to accommodate such projects. Addressed in the DEIS: Not adequately addressed. Red Cliffs NCA RMP Amendment C would accommodate utilities in the ROW corridor, but the impact of such utilities is not adequately discussed.	The cumulative impacts analysis contained in Section 3.28 of the EIS contains all reasonably foreseeable future actions with the potential to contribute to the impacts of the actions analyzed in the EIS. The comment does not identify specific actions that were omitted from that list of reasonably foreseeable future actions. Chapter 3 of the EIS contains analysis of the potential for the BLM to amend the Red Cliffs NCA RMP to designate the alternative alignments as a transportation and utility corridor under Alternative C.
H.65-570	3- Finally, any known plans for future ROWs in the NCA/Reserve should be addressed. Estimate the foreseeable future demand for ROWs and where they would be located. Addressed in the DEIS: No.	The cumulative impacts analysis contained in Section 3.28 of the EIS contains all reasonably foreseeable future actions with the potential to contribute to the impacts of the actions analyzed in the EIS. The comment does not identify specific actions that were omitted from that list of reasonably foreseeable future actions.

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H.65-571	4- The DEIS should analyze pros and cons of co-locating utilities in the NCH ROW above and below ground. For example, above ground transmission lines disturb scenic resources and provide nest perches for ravens, a major tortoise predator. Below-ground utilities require blasting and excavation that could negatively impact the threatened Mojave desert tortoise. Addressed in the DEIS: Not adequately. The DEIS discusses how above-ground utilities may function as perch sites for MDT predators, but fails to discuss the impacts of below-ground utilities.	The analysis of Red Cliffs NCA RMP Amendment Alternative C contained in Chapter 3 evaluates the potential for both aboveground and below ground utilities, should the BLM select this alternative. Because the ROW corridor authorized under Red Cliffs NCA RMP Amendment Alternative C would be the same size as the potential ROW issued to UDOT for the Northern Corridor, the BLM has not assumed that additional surface disturbance not already contained within the analysis of the Northern Corridor would occur in the event that the BLM selects this alternative.
H.86-3	Chapter 1.3.3, p 1-4 The Statement should be clarified to include the language in bold. “Washington County has submitted an Amended HCP to the USFWS that would expand the Reserve by approximately 6,800 acres to include proposed Reserve Zone 6 (refer to Map 1.1-1). The expansion of the Reserve would only occur if the Northern Corridor Changed Circumstance is triggered. If this Changed Circumstance does not occur, then the expansion of the Reserve will not occur.”	This sentence has been revised in response to comments from other entities to clarify that Washington County has submitted an Amended HCP to the USFWS that, under certain changed circumstances, would expand the Reserve by approximately 6,800 acres to include proposed Reserve Zone 6.
A.53-2	If the Northern Corridor is disallowed, and if the Incidental Take Permit is not renewed, SITLA feels it has several alternatives, including but not limited to entering into its own HCP by using its land holdings in the Beaver Dam Wash area as mitigation for developing its land holdings currently inside the Reserve, or possibly duplicating provisions within the neighboring HCP (Clark County) where SITLA would pay a per acre fee to develop its landholdings within the Reserve. SITLA would of course necessarily waive its rights to explore minerals extraction and/or develop its landholdings inside the proposed Zone 6 should the ITP be renewed, the Northern Corridor approved, and Zone 6 being adopted as outlined above. Otherwise, SITLA will move forward with current and future opportunities to generate revenue from those landholdings as required by our mandate.	Comment noted. The agencies appreciate SITLA’s participation in the Amended HCP and EIS process. Nothing in the EIS implies that these options would not be available to SITLA.

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H.65-580	h. The DEIS should address how routing the NCH through 0.62 miles of UDWR land would undermine the management of these lands as part of the Utah's system of Wildlife Reserve/Management Areas. Addressed in DEIS: No	The EIS analysis analyzes the potential impacts on resources regardless of the underlying landownership. The Utah Division of Wildlife Resources (UDWR) manages the agency's lands within the Red Cliffs Desert Reserve as a part of the Reserve, which is analyzed in the EIS. The State of Utah is participating in the EIS process as a cooperating agency.
H.65-283	BLM's Instruction Memorandum (IM) 2013- 131 also directs the agency to, where feasible, "utilize estimates of nonmarket environmental values in NEPA analysis supporting planning and other decision-making." 66 IM 2013-131 also describes nonmarket values as those that "reflect the benefits individuals attribute to experiences of the environment, uses of natural resources, or the existence of particular ecological conditions that do not involve market transactions and therefore lack prices." Things like "the perceived benefit of hiking in wilderness" would be considered a non-market value. See IM 2013-131. In addition, when possible, BLM should calculate the quantitative non-market environmental values to better assist the agency in its analysis of action impacts. However, at the very least, BLM must develop a qualitative description of the most relevant non-market values in the NEPA analysis process. See IM 2013-131.	BLM's Washington Office IM 2013-131 expired on September 30, 2014. Regardless, in the IM the BLM clarified that "Given the variety of proposed actions and environmental contexts analyzed in RMPs and EISs, there are no criteria that should invariably trigger the analysis of nonmarket values." The BLM did consider nonmarket values in the development of the EIS, though because the referenced IM is expired, the BLM did not use the exact language from the IM in this consideration. For example, refer to the BLM's consideration of the potential impacts on recreation resources, visual resources, traffic congestion, and the Red Cliffs NCA's objects and values in the EIS. Also note that the BLM considered Washington County's status as an international tourist destination with as many as 5 million visitors per year in the socioeconomics section of the EIS.

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.51-43	<p>18 2-22 2.5 Table 2.5-1</p> <p>Text: “Management decisions pertaining to reintroduction, relocation, translocation, and population augmentation of Mojave desert tortoises and other special status species were not included in the SGFO RMP.”</p> <p>Comment: The Council interprets this statement reflecting current management to mean that the RMP does not foresee or allow translocation of displaced tortoises into the Zone 6 area. Yet, we understand that in 2019, 15 tortoises were moved off the new Lakes development (now known as DiVario development; pers. comm. Cameron Rognan, 9/2/2020) between St George and proposed Zone 6 lands, and placed onto those lands. If true, how was this unauthorized translocation accommodated? Please note that we asked DEIS authors to address this specific issue on page 15 of our scoping comments, and failure of the DEIS to address this request has rendered the document deficient, which must be addressed in the Final EIS.</p>	<p>The absence of specific decisions pertaining to reintroduction, relocation, translocation, and population augmentation of Mojave desert tortoises and other special status species from the 1999 SGFO RMP does not preclude these actions from proceeding when authorized by the BLM. The BLM is including these decisions in the proposed SGFO RMP amendments to provide clarity that these actions are appropriate to consider if proposed Zone 6 is established.</p> <p>The BLM RMP is only applicable to the BLM-administered lands within proposed Reserve Zone 6. The BLM does not have management authority over the SITLA lands within proposed Reserve Zone 6.</p>

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H.65-123	<p>Relative to direct mortality of MDT (i.e. being run over by vehicles), the Draft HCP says that "the County will install Foot Traffic and Tortoise Fencing along the eastern parts of Reserve Zone 6 boundary and along the Navajo Road corridor to prevent motorized access outside the road ROW" (pg. 132) but makes no mention of fencing other open routes. Hence, MDT will continue to be run over and killed by vehicles on roads and tracks (and vehicles traveling illegally off established routes). In addition, while fencing would help to prevent road mortality, it would increase habitat fragmentation effects. None of this is adequately disclosed or discussed in the DEIS.</p> <p>Further, while the DEIS states that agencies will provide extra law enforcement and education to reduce illegal vehicular and recreational use of Zone 6 (e.g., DEIS at 3-64), the DEIS offers no evidence that the interventions will be sufficient or even partially effective. In our experience, illegal vehicular use of BLM lands is a pervasive problem across Utah and the west. See Switalski 2018 and Compilation of News Articles Related to OHV Use. The final decision cannot rely on the assumption that these interventions will be sufficient without providing evidence of such.</p>	<p>The full fencing plan for Reserve Zone 6 proposed in the Amended HCP is presented in Section 9.1.1.1.4 of the Amended HCP. One of the purposes of installing this fencing is to prevent motorized access outside of approved areas. Non-motorized routes pose a much lower risk of tortoise mortality compared to motorized routes, as confirmed by the agencies' monitoring of similar routes within other portions of the Red Cliffs Desert Reserve and NCA.</p> <p>Section 3.5.1.1 of the EIS addresses the issue of fragmentation and other impacts to the Mojave desert tortoise associated with roads, fenced roads, and tortoise exclusion fencing.</p> <p>In determining the appropriate manner to consider the benefits of additional education and law enforcement, the agencies considered how similar efforts for enforcement and user education were implemented when the 1995 HCP was established. The agencies determined that the conclusions developed in the EIS are consistent with observed outcomes from similar law enforcement and education efforts in Washington County.</p>
H.86-2	<p>Also, throughout Chapter 2 and Chapter 3, the BLM refers to the "new" permit or the "issuance of an ITP." However, the State, along with Washington County, would like the BLM to refer to the ITP as a "reissuance" or a "renewal" of the ITP. The BLM could state that the " incidental take permit is subject to a renewal that has been previously evaluated under NEPA and ESA Section 7, deemed to be consistent with the statutory issuance criteria for an ITP, and authorized by the USFWS. The BLM and USFWS is analyzing the County's application for a renewal of the ITP and HCP in this NEPA process."</p>	<p>Refer to response to A.05-2.</p>

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H.86-7	<p>Chapter 2.4.1, p 2-12</p> <p>The BLM should clarify that lands not yet acquired for the Reserve Zone 3 and 6 and other areas would cease to be managed for the benefit of the Mojave Desert tortoise. The Draft EIS should clarify that it is likely that at least some unacquired Reserve lands would become developed without the coordination and financial support provided by the implementation of the Washington County HCP. The language in the Draft EIS suggesting that these unacquired Reserve lands are in a "current protected status" is incorrect and should be corrected. While development of unacquired Reserve lands is a possibility under baseline conditions, this outcome becomes substantially more likely under the No Action alternative. The Draft EIS should be revised to evaluate the effects of additional development within Reserve Zone 3 as a consequence of the No Action alternative</p>	Refer to response to A.05-29.
H.86-4	<p>Chapter 2.2.9, p 2-6</p> <p>The Draft EIS contains statements that USFWS and BLM are considering additional mitigation measures, should they prove necessary. The BLM and USFWS must provide additional explanation of the statutory and regulatory basis for seeking additional mitigation in connection with any of the contemplated federal actions should be provided.</p>	Refer to response to A.05-9.

**0.3.9 Editorial**

<b>Letter #- Comment # or Public Concern Statement #</b>	<b>Comment</b>	<b>Response</b>
A.05-62	Table 3.5-1, p 3-33 EIS Text: Scientific Name: Gopherus agasizii Comment: The scientific name of the MDT has been misspelled.	This typo has been corrected.
10827-19	I also request that, when a Final EIS is released, that it include a Track Changes version (locked into a pdf) so that I and others can quickly see what was added, revised, or deleted between this DEIS and that FEIS. This would make it much easier to determine how public comments were or were not addressed in the FEIS.	The Final EIS is formatted to indicate where changes were made to the Draft EIS.
A.21-5	UDOT requests that the Delineation Report be incorporated as an appendix to the Final EIS.	Several survey reports have been completed as part of this EIS. The Department of the Interior strongly suggests brevity in EIS documents and discourages the attachment of extraneous information. As such, the aquatic resources delineation report will not be attached in the Final EIS. This document will be publicly available upon request.
H.65-57	We anticipate that there will be significant but subtle changes in the DEIS as you create the final version. There will only be a short period of time for the coalition to find and review those changes. To help us find them, we request that a version of the Final EIS be made available that clearly identifies changes from the draft to the final (i.e. tracked changes) so that we can concentrate our review. Otherwise it will be extremely difficult to review the Final EIS.	The Final EIS is formatted to indicate where changes were made to the Draft EIS.
A.51-74	Comment: Please modify Map 3.22-1 in the Final EIS to show the extent of the Turkey Farm Road and Cottonwood Trail fires. Based on Map 3.22-1, it appears there have been no documented fires in the southern part of the Reserve that would be impacted by the four action alternatives.	Map 3.22-1 has been updated to reflect the extents of the Turkey Farm Road, Cottonwood Trail, and Lava Ridge fires.

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A.51-81	<p>Comment: A dozen maps, including the first seven (e.g., 1.1-1, 2.2-1, 2.3-1, 2.3-2, 2.3-3, 2.3-4, 2.3-5, etc.) depict the Red Cliffs Desert Reserve boundary with a dashed line that is indistinguishable from the Red Cliffs NCA, which is depicted as a solid line and superimposed over the Reserve boundary. In fact, it is not until Map 2.4-2 (which does not map the NCA boundary) that we can see the actual Reserve boundary line. Please reconsider the color layout on all affected maps that depict the Reserve so that it can be differentiated from the NCA.</p>	<p>The line styles for the Red Cliffs Desert Reserve and Red Cliffs NCA have been revised on maps depicting these areas to better differentiate the Reserve from the Red Cliffs NCA.</p>
A.51-82	<p>Comment: It is not clear why Zone 6 is not depicted on Map 2.4-3. The Council believes that one of the flaws inherent to designating Zone 6 as a satellite reserve is that it is noncontiguous to the actual, functional Reserve in Zone 3. We therefore ask that Map 2.4-3 be amended to show Zone 6 relative to the other five zones (i.e., Map 2.4-4 does not give the naive reader the overall view of the isolated, disjunct nature of the proposed satellite reserve).</p>	<p>Proposed Zone 6 is not depicted on Map 2.4-3, as that map specifically illustrates the allowed uses for existing zones in the Reserve. Proposed Zone 6 is shown relative to the Reserve in other maps, including Map 1.1-1 and various Chapter 3 maps.</p>
A.51-83	<p>Comment: We ask that the BLM amend Map 2.5-15 to show the location of the Western Corridor, so the concerned public can see how Zone 6 areas, as proposed, would be exposed to indirect impacts extending at least a kilometer into the satellite reserve from the west.</p>	<p>There is no pending application with the BLM or USFWS providing a specific proposed alignment. Changes to Map 2.5-15 were not made as suggested. Direct and indirect impacts are described in Chapter 3 of the EIS.</p>

**0.3.10 Endangered Species Act Section 6 Land Acquisition Grants**

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.05-82	<p>Chapter 3.6.2.1, p 3-75                      EIS Text: Potential transfer or replacement lands are subject to negotiation between USFWS and the State of Utah. These lands have not been identified and are therefore not included in this analysis.                      Comment: The County suggests that USFWS consider the lands that it would acquire under the Zone 6 Changed Circumstance to be the likely replacements for the affected ESA Section 6 lands.</p>	<p>Proposed Zone 6 would be established as an offset to impacts associated with the changed circumstance, as detailed in the Amended Habitat Conservation Plan. The ESA Section 6 lands in question were acquired through the HCP Land Acquisition Grants. Any replacement for lost conservation value as the result of impacts to these lands must be negotiated between the Utah Division of Wildlife Resources (UDWR) and USFWS and only after a decision is made. Therefore, USFWS cannot agree to any proposed offset of impacts to Section 6 lands excepting with UDWR and after a decision is made that will result in lost conservation value to Section 6 lands.</p>
A.05-83	<p>Chapter 3.6.2.1, p 3-75                      EIS Text: Impact indicators for Section 6 lands include encroachment or proximity impacts to these lands that result in the parcel or parcels no longer complementing the County's HCP and, therefore, do not meet the long-term conservation goals of the parcels, and result in a violation of executed grant agreement terms and conditions                      Comment: The Draft EIS implies that portions of Section 6 lands indirectly impacted by the Northern Corridor ROW would no longer complement the County's HCP or meet the long-term conservation goals of the parcels. This assumption does not appear to consider the fact that nearly all of the land within the boundary of the Reserve, regardless of its status as MDT habitat, quality, condition, or adjacency to developed lands or infrastructure is intended to be acquired for the long-term benefit of the MDT. It is not relevant to the purposes of the Section 6 acquisitions that a portion of the acreage either is or might be indirectly affected by other land uses; the remainder is still necessary to achieve the recovery-based biological goals and objectives of the HCP. Therefore, the Draft EIS should be revised to strike statements suggesting that indirect impacts "result in a violation of executed grant agreement terms and conditions."</p>	<p>The ESA Section 6 lands that may be affected were acquired through HCP Land Acquisition Grants. These grants are intended to support and complement the conservation program associated with the HCP and other state values in the grants. In that respect, the analysis must consider proximity impacts to ESA Section 6 parcels, such as fragmentation, to adequately assess the potential degradation of the parcel's conservation value and, therefore, the adherence to the terms and conditions of the agreement.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-10	<p>BLM and the Service acknowledge that UDOT's preferred NCH route (and other alternative routes, too) will impact lands acquired through Section 6 of the ESA. According to the DEIS, the Service cannot approve any action impacting these lands unless and until the Service has accepted from the State of Utah transferred or replacement lands or the Service has waived the executed grant agreements with the State of Utah and accepted payment for the entire acquisition costs of the impacted parcels. DEIS at 3-74. In both cases, the Service is first required to undertake full and comprehensive NEPA analysis prior to approving any action that will impact Section 6 lands. Because the Agencies have failed to identify any alternative lands to off-set and mitigate the impacts of UDOT's preferred ROW route on these Section 6 lands, and further failed to examine the impacts of waiving the Section 6 agreement between the Service and the State of Utah and accepting payment for the destruction of these Section 6 lands, the Agencies' DEIS is inadequate.</p>	<p>The nature and extent of compensation is dependent on the Northern Corridor alternative selected and further progression of project design. For this reason, a proposal for compensation has not been included in the EIS, but the requirement for compensation in accordance with 50 CFR 80.14 and 2 CFR 200.311 would be stipulated in the ROD if an alternative is selected that impacts Section 6 lands. Compensation would be in the form of the transfer of an undivided pro-rate share of real property, replacement with real property of equal value that meets the intended long-term conservation goals, and/or repayment of the grant funds at fair market value. Compensation would be completed using non-federal dollars and the conditions of compensation are subject to negotiation between the USFWS and UDWR. If compensation for impacts to Section 6 lands is required, the USFWS will review the UDWR's proposal for compensation and determine the appropriate environmental review process, including any NEPA documentation and public review opportunities, at that time.</p>

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H.65-11	<p>In addition to these NEPA issues, BLM is also precluded from issuing a Record of Decision granting a right-of-way for the NCH along the UDOT's proposed route, and the Service is prohibited from issuing a ESA Section 10 incidental take permit, unless and until the Service has accepted transferred or replacement lands or the Service has waived the executed grant agreements with the State of Utah and accepted payment for the entire acquisition costs of the impacted parcels. Issuance of a ROW to UDOT prior to accepting and approving transferred or replacement lands or payment in full will violate the Endangered Species Act.</p>	<p>Refer to response to H.65-10. The BLM has management authority on Federal lands within the NCA and may evaluate and approve discretionary uses or changes to the Approved RMP based on the agency's NEPA and land use planning procedures, should the agency find such action appropriate. As described in the EIS, the BLM decision maker will evaluate discretionary uses within an NCA through the NEPA process and will analyze whether the impacts of the proposed use in the NCA are consistent with the protection of the area's objects and values.</p> <p>The USFWS is reviewing the Amended HCP submitted by Washington County to determine whether the Amended HCP meets ITP issuance criteria (2016 HCP Handbook, p. 17-6). The USFWS considers Section 10(a)(2)(A) of the ESA and its implementing regulations at 50 CFR 17.22 and 17.32 and the 2016 HCP Handbook as our most current regulations, policy, and standards for HCP and associated amendments. If the HCP submitted by the applicant meets issuance criteria and is statutorily complete, the USFWS shall issue the permit.</p>
H.65-12	<p>To be clear, any effort to approve the NCH - through the T-Bone Mesa Alignment, UDOT Application Alignment, or the Southern Alignment - impacting Section 6 conservation lands will be unlawful. First, Utah Division of Wildlife Resources is legally required to adhere to the terms and conditions of the Cooperative Endangered Species Conservation Fund in managing the acquired lands. In 2004 and 2005, when the Service made the \$14,422,259 available to UDWR for acquisition of the portions of Section 6 lands at issue here, the Service required that the acquired "[h]abitat must be set aside in perpetuity for the purposes of conservation."</p>	<p>The analysis recognizes that direct and indirect impacts to Section 6 lands would degrade the conservation value of the identified parcels such that it would be a violation of executed grant agreements. Per these agreements, in the event that the terms and conditions for long-term conservation set forth in the grant are not fully complied with, then compensation through transfer, replacement, or repayment to the United States is required.</p>

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H.65-13	<p>See also DEIS at 3-75 (noting the parcels affected by the NCH acquired with Section 6 funds without more fully examining the ecological impacts of the NCH on wildlife habitat within these Section 6 lands and that degrading them will be unlawful). Indeed, the Service required UDWR's proposal "must state a commitment to funding for, and implementation of, management of the habitat in perpetuity, consistent with the conservation needs of the species." Id. Importantly, the DEIS does not provide any references or citations to these UDWR proposals, and BLM and the Service fail to include these agreements in the appendices or otherwise allow public review of these documents. The DEIS similarly fails to include even the most rudimentary information on these parcels, including any enforceable agreements or commitments regarding subsequent management and use of these acquired lands. In the DEIS, BLM and the Service do not cite to, incorporate or provide any information on the executed grant agreements for these acquisitions, see DEIS 3-74; the Management Agreements between UDWR and the Service, see 16 U.S.C. § 1535(b); the Cooperative Agreements between the UDWR and the Service, see 16 U.S.C § 1535(c), 50 C.F.R. § 81.3, or the Project Agreement, 50 C.F.R. § 81.1 (a)(2).</p>	<p>Detailed analysis of existing conditions and impacts to wildlife and associated habitat are included in Section 3.4, General Wildlife, and Section 3.5, Special Status Wildlife, of the EIS. As noted in Section 3.6.2, all Section 6 lands analyzed provide habitat for Mojave desert tortoise and, to varying degrees, other wildlife that aid in promoting biodiversity and provide valuable habitat within Zone 3 (the core of the Reserve). The grant objective, for which potentially impacted Section 6 lands are managed, and the remedy if lands are no longer managed to meet this objective are included in Section 3.6 of the EIS. These were the elements of the grant agreements that USFWS found relevant to the analysis and decision-making and, therefore, included in the EIS. As such, the grant agreements in their entirety will not be attached in the Final EIS. These documents will be publicly available upon request. Refer also to response to H.65-12.</p>
H.65-14	<p>Yet, even though the DEIS proposes to permit a 4-lane highway through lands acquired for wildlife conservation, the BLM and the Service failed to identify any offsetting lands meeting this requirement, and the agencies provide no analysis or environmental review at all. Id. Instead, the agencies completely ignore this analysis ("lands have not been identified and are therefore not included in this analysis"), and claim only "[s]hould transfer or replacement lands(s) be warranted, the [Service] will ensure that the necessary agreements are in place before finalizing these lands acquisitions." Id.</p>	<p>Refer to response to H.65-10.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
14065-2	<p>Reviewing the minutes from the HCP meetings over the years, there has been a significant amount of section 6 funds which were used to "acquire" private in holdings and obtain reserve land within the original HCP. An audit should be conducted of all the section 6 funding and identify all funds used for conservation and land acquisition in the subject sections under review. It is not enough to cite the section purchased, the grant document is a contract and every single one of those contracts and the language must be made available for review with the EIS. The statement admits that the proposed highway and amendments would impact those lands purchased with section 6 funding.</p>	<p>Refer to response to H.65-13 regarding grant agreements. Lands within the Reserve that have received Section 6 funding are identified on Map 3.6-1.</p>
14065-7	<p>The draft amended HCP should not be approved where there exists absolutely no promise or plan to continue long term future preservation of areas identified, for example, it states that when the plan ends or the tortoise is removed from the endangered species list, there is no longer any obligation. Section 6 of the ESA and the funds provided under that section must be used to preserve and protect the environment to the maximum extent possible and refers to long term preservation. If section 6 funding is provided, the plan must have at least some permanent areas for protection and continued habitat, even when the plan ends or the tortoise numbers have increased. The goal is the "long term" preservation, not the short term 15 years of development with no NEPA and ESA, only to have no obligation to preserve any lands what so-ever when the plan expires or it's delisted. That is not considered "long term" preservation and is not consistent with the goals and intent of section 6.</p>	<p>The USFWS is reviewing the Amended HCP submitted by Washington County to determine whether the Amended HCP meets ITP issuance criteria (2016 HCP Handbook, p. 17-6). The USFWS considers Section 10(a)(2)(A) of the ESA and its implementing regulations at 50 CFR 17.22 and 17.32 and the 2016 HCP Handbook as our most current regulations, policy, and standards for HCP and associated amendments. If the HCP submitted by the applicant meets issuance criteria and is statutorily complete, the USFWS shall issue the permit.</p> <p>The ESA Section 6 lands that may be affected were acquired through HCP Land Acquisition Grants. This grant program is not intended to meet recovery-based biological goals and objectives of the HCP. Rather, these grants are intended to support and complement the conservation program associated with the HCP.</p>

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14065-11	<p>"Reviewing the minutes from the HCP meetings over the years, there has been a significant amount of section 6 funds which were used to ""acquire"" private in holdings and obtain reserve land within the original HCP. This is discussed in 3.6 of the EIS. An audit should be conducted of all the section 6 funding and identify all funds used for conservation and land acquisition in the subject sections under review. It is not enough to cite the section purchased, the grant document is a contract and every single one of those contracts and the language must be made available for review with the EIS. The statement admits that the proposed highway and amendments would impact those lands purchased with section 6 funding. The purpose of acquiring reserve land with section 6 funds is for future ""permanent"" conservation. Not for temporary conservation until the market comes back and state trust lands have made plans to sell and develop all their inholdings. The proposal states that the purpose of the conservation land is no longer because they aren't including that land in their new HCP proposal. That's ridiculous, that section 6 funds used to permanently establish areas of reserve and conservation can be transferred and sold and developed later on. "</p>	<p>Refer to responses to H.65-13 and 14065-2.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.25-45	<p>The agencies must adequately analyze the way lands purchased with Section 6 grants are being used to ensure it is legal to route a highway through these lands. The money was used for a specific purpose and that purpose is now changing. This is not reassuring to us:</p> <p>"Potential transfer or replacement lands are subject to negotiation between USFWS and the State of Utah. These lands have not been identified and are therefore not included in this analysis. Should transfer or replacement land(s) be warranted, the USFWS will ensure that the necessary agreements are in place before finalizing these land acquisitions, and ensure that the land acquisition complies with all the USFWS regulations, procedures, and policies relating to the land acquisition."</p> <p>The State of Utah should not have to pay for this transfer or replacement. Have these costs been factored into the cost of Alternatives 2, 3, and 4 that would cross/impact Section 6 lands? If so, where in the DEIS is that shown? Also, since it appears that no determination has been made with the State of Utah about what lands would be used for transfer/replacement, this DEIS is incomplete.</p>	<p>Each of the Section 6 lands analyzed have a similar grant objective, as stated in Section 3.6 of the EIS, and the lands are managed to meet this objective. The State of Utah, in this case UDWR, was the grant recipient of the Section 6 grants that may be impacted. Therefore, if it is determined that the management of these lands no longer meet their intended purpose, and therefore do not comply with the terms and conditions of these agreements, UDWR would be the responsible entity for transfer, replacement, or repayment.</p> <p>With regard to the nature and timing of compensation, please refer to comment H.65-10. The estimated costs of Alternatives 2, 3, and 4 are preliminary ranges and do not include refined design detail cost considerations, such as cost of transfer, replacement or repayment for impacts to Section 6 lands. Any replacement for lost conservation value as a result of impacts to these lands must be negotiated between UDWR and USFWS and only after a decision is made. In addition, cost of transfer, replacement, or repayment would be dependent on current fair market value of the subject parcel(s).</p>
A.35-12	<p>The County intends that its commitment to fund the acquisition of approximately 450 acres of SITLA land in Zone 6 will also satisfy, in full or in large part, any obligation by the County or UDNR to replace the value of Reserve lands acquired with the assistance of ESA Section 6 grant funds. The County notes that its commitments to the Northern Corridor Changed Circumstance are not mitigation for incidental take, as the County has already completed all of its mitigation obligations for the authorized take that is the subject to renewal and by the actions of UDOT and BLM related to the Northern Corridor are not Covered Activities of the Amended HCP.</p>	<p>Refer to response to A-05.82. The EIS text does not imply that the County's commitments to the Northern Corridor changed circumstance are mitigation for incidental take of Mojave desert tortoise.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-15	<p>Separate and apart from the Agencies' failure to adequately engage the public, the Agencies have also adopted an unreasonable and arbitrary limit to its analysis examining the indirect impacts of the NCH on Section 6 lands in the DEIS. For example, the Agencies "assumed" that indirect impacts to MDT from the proposed NCH would be limited to 508 meters from the approved ROW. DEIS at 3-75. The agencies used this limit because its supposedly represents the "annual home range size of an adult MDT." Id. BLM provides no further discussion or analysis supporting this analysis area and notes only that this limit reflects the "short-term indirect effects of noise, vibration, and other construction-related disturbances."</p> <p>But BLM never explains why focusing on short-term impacts is appropriate here in examining indirect impacts, especially since NCH will impact far beyond 508 meters. In fact, the DEIS cites studies showing that the magnitude of the road impact zone extends up to 4,250 meters for 4-lane highways (like the NCH), and the zone of impact increased significantly with increasing traffic levels up to fully 4.6 kilometers from the road. DEIS at 3-35. Yet, the DEIS never acknowledges these studies or examines the full impact on Section 6 lands of the direct and indirect impact of UDOT's preferred route.</p>	<p>The area used to analyze impacts to ESA Section 6 lands relative to Mojave desert tortoise, as well as the assumptions for the analysis, was based on similar assumptions used for the biological analyses, specifically Section 3.5 of the EIS. Section 3.5.2.1 analysis assumptions includes the citation for 508 meters. The 508-meter buffer is based on the annual home range size of an adult male Mojave desert tortoise of 200 acres (Franks et al. 2011, USFWS 2011a).</p> <p>The analysis in the EIS includes both short-term and long-term impacts. The short-term impacts are indicative of the disturbance to tortoises translocated from the ROW or due to construction related activities that cause disturbance (e.g., noise, dust). Keeping translocated tortoises within a home range distance, where they are familiar with the landscape, would minimize the disturbance to them and reduces the impacts from being displaced. These acres also retain minor long-term impacts and intermittent localized moderate impacts due to the operations and maintenance of the Northern Corridor. Additional long-term impacts of the roadway are discussed in the fragmentation of habitat and the impacts to tortoise dispersal over time with the use of crossing structures to maintain connectivity.</p> <p>The magnitude of the zone of impact of a roadway (up to 4,250 meters for 4-lane highway and 4.6 kilometers from the road) is based off an <i>unfenced</i> road. Fencing will be a requirement for the Northern Corridor ROW and therefore reduces these impacts.</p>

**0.3.11 Environmental Justice**

<b>Letter #- Comment # or Public Concern Statement #</b>	<b>Comment</b>	<b>Response</b>
A.20-5	ES; ES-11; Table ES.5-1; Cell Alt 6; Environmental Justice. Comment: The One-way Couplet alternative would require major changes to the current transit transfer station, route changes and a shift in low-income housing options along 100 South and along Tabernacle – significantly impacting the walkability and transportation options for Environmental Justice populations.	The BLM is required to identify and address disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations. Modifications to the existing transit service along 100 South would occur as a result of Alternative 6. While these impacts may disrupt services during construction and result in rerouting existing transit service, transit service is likely to remain. This temporary negative impact is not disproportionate to Environmental Justice (EJ) communities but to riders as a whole. Refer to response to A.20-11.
A.20-11	3; 3-178; 3.27.2.2. Comment: Alternative 6, one-way couplets may have an effect on Environmental Justice populations due to the changes with transit, the movement of the transit transfer station, and the realignment of transit routes and stops. Walkability changes to pedestrian traffic crossing streets, and the removal of close bus stops would have a negative effect on Environmental Justice populations.	Refer to response to A.20-5. Section 3.27.2.2 has been revised to state: Alternative 6 would require temporary and permanent modifications to the existing transit routes along 100 South including modifications to the SunTran transfer station, impacting transit riders, particularly transit riders from nearby senior housing and Dixie State University students. While this temporary negative impact is likely to occur, it is not disproportionate to EJ populations but to transit riders as a whole.

**0.3.12 Fire and Fuels Management**

Letter #- Comment # or Public Concern Statement #	Comment	Response
FIRE-01	<p>CEQ regulations at 40 CFR 1502.9(c)(1)(ii) require an agency to supplement an EIS when there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts. The BLM and USFWS should prepare a supplemental Draft EIS because the impacts of the Turkey Farm Road and Cottonwood Trail wildfires in the Red Cliffs NCA and Reserve, including their impacts on Mojave Desert Tortoise and its habitat, represent significant new circumstances relevant to the BLM and USFWS' decisions to be made from the EIS.</p>	<p>The BLM and USFWS considered several factors to determine if the areas that burned in 2020—specifically, the Turkey Farm Road, Cottonwood Trail, and Lava Ridge fires that occurred after the Draft EIS was published—resulted in “significant new circumstances or information” that were not disclosed in the Draft EIS and warrant preparation of a supplemental EIS.</p> <p>Although the wildfires covered more area than fires occurring during most previous years, wildfire has become a common occurrence on this landscape. The increased frequency of wildfires and their impacts are known issues and they were previously identified and/or analyzed in multiple documents, including the Red Cliffs NCA RMP, USFWS' Draft Biological Report (USFWS 2020a), and Draft EIS. Approximately 70 percent of the area affected by the 2020 wildfires in Reserve Zone 3 is within the footprints of previous wildfires. Since those earlier burns, non-native vegetation has colonized the majority of the burned area and reduced its suitability as Mojave desert tortoise habitat. While fires covering the total acreage seen in 2020 is an infrequent occurrence in the NCA and Reserve, similar levels of fire activity have occurred in the past. The fires in 2005 burned approximately 14,356 acres within Reserve Zone 3 and within much of the same footprints as the Turkey Farm Road and Cottonwood Trail fires. The Draft EIS disclosed the extent of the fires as well as the related impacts that were measured afterwards, such as estimated mortality.</p> <p>Due to this well-documented habitat impacts from past fires, fire history, and the survey efforts that have followed, management of desert tortoise and its habitat has shifted to anticipate fires as part of the baseline condition in this area. This is acknowledged in the draft</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
		<p>Biological Report (USFWS 2020a), which states that “it is highly probable that Red Cliffs Desert Reserve, Zone 3 will have a large wildfire again.” Although the exact timing and size of fires cannot be predicted, this supporting documentation shows that the agencies were aware of the likelihood of this type of fire occurrence as they prepared the Draft EIS. In addition, the Washington County Amended HCP anticipates the occurrence of future fires within the Reserve and has incorporated a proposed response process that was available for public review with the Draft EIS. This response process is occurring, as evidenced by the adoption of the Red Cliffs Desert Reserve Habitat and Fire Management Guidelines and financial commitments for restoration by the HCP Partners in the Amended HCP.</p> <p>The occurrence and expectation for fires within the analysis area for the ROW and the ITP area was well documented in the Draft EIS and Washington County HCP, which were both released to the public for 90 days of review on June 12, 2020. Although the exact location and size of future fires cannot be predicted, the Draft EIS clearly stated the contributing factors and resulting impacts of the current burn-reburn fire regime that has developed in this area and the potential for future fires. While information relating to the new fires has been added to the Final EIS, the 2020 wildfires do not represent a significant new circumstance or information for the consideration of the ROW or ITP applications and no supplementation to the current analysis is necessary. In addition, neither the proposed Red Cliffs NCA RMP amendments nor the proposed SGFO RMP amendments involved effects from the wildfires beyond what has been documented in the Red Cliffs NCA RMP, draft Biological Report, and Final EIS. Therefore, it was determined there are no significant new circumstances relevant to these Federal actions and no supplementation to the current analysis is necessary.</p>

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		Accordingly, the BLM and USFWS have included a description of the wildfires in Section 1.6 of the EIS in the description of changes between the Draft and Final EIS, and have also modified the affected environment and/or environmental consequences sections of the vegetation communities including noxious weeds and invasive species (EIS Section 3.2), special status plants (EIS Section 3.3), wildlife (EIS Section 3.4), special status wildlife (EIS Section 3.5), ESA Section 6 land acquisition grants (EIS Section 3.6), visual resources (EIS Section 3.13), cultural resources (EIS Section 3.14), recreation and visitor services (EIS Section 3.15), and fire and fuels management (EIS Section 3.22) to address the changes posed by the Turkey Farm Road, Cottonwood Trail, and Lava Ridge wildfires.
<b>FIRE-02</b>	The construction of the Northern Corridor across the Red Cliffs NCA would increase the risk of human-caused fires from occurrences such as vehicle collisions, dragging tow chains, tire blow outs, tossed cigarette butts, fireworks that has not been analyzed in the EIS.	Potential for the Northern Corridor to introduce new ignition sources that increase the likelihood of fire occurrence and reduce fire-return intervals within the Red Cliffs NCA and Reserve is addressed in the Direct and Indirect Impacts from Alternatives 2, 3, and 4 in the Fire and Fuels Management section of the EIS (Section 3.22).
<b>FIRE-03</b>	The Northern Corridor, if constructed on one of the alternative routes through the Red Cliffs NCA and Reserve, would provide improved firefighting access and would serve as a fire break to help contain future wildfires in the NCA.	Potential for the Northern Corridor to act as a fire break and improve accessibility to wildfire suppression within the Red Cliffs NCA and Reserve is addressed in the Direct and Indirect Impacts from Alternatives 2, 3, and 4 in the Fire and Fuels Management section of the EIS (Section 3.22).
4971-1	One thing that would be very helpful, if possible, to post on eplanning is a map of the recently burned areas.	Map 3.22-1 in Appendix B of the EIS has been updated to include wildfire occurrences within the Red Cliffs NCA and the Reserve from 1976-2020, and includes the Turkey Farm Road and Cottonwood Trail wildfires.

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11400-2	The latest reason for building this highway is that it would provide a fire break in the event of a forest/brush fire in this area. As a former Forest Service fire fighter, I can tell you that this proposed road would definitely not serve as a fire break. Even a small amount of wind would easily blow embers across such a road.	The Southwest Utah Support Area Fire Management Plan identifies roadways as manmade fire breaks that support suppression activities and provide for firefighter and public safety. The Northern Corridor highway, if constructed across the Red Cliffs NCA, would act as a fire break as identified in the Southwest Utah Support Area Fire Management Plan and would aid in fire suppression and management within the Red Cliffs Desert Reserve and NCA. Refer also to response to FIRE-03.
A.18-1	The Turkey Farm Road Fire in July 2020 burned an estimated 11,993 acres within the Red Cliffs Desert Reserve. The Draft Amended Habitat Conservation Plan (HCP) identifies fire as an increasing threat to desert tortoises and their habitat, and that it was estimated that about 37.5% of adult desert tortoises died across the Reserve in the 2005 fire season (Sec. 9.1.4). The HCP states that within 90 days after a changed circumstance such as wildfire, the County and HCP partners will prepare an initial restoration plan for the affected Reserve lands. It would be improper for a decision to be made in favor of DEIS Alternatives 2, 3 or 4 until an adequate amount of monitoring from a restoration plan could assess fire effects to the desert tortoise population and the rate of habitat and population recovery.	As outlined in the comment, Section 9.1.4 of the HCP submitted by Washington County included a changed circumstance that would be triggered when a wildfire occurs on any non-acquired Reserve lands. The HCP submitted by Washington County would not go into effect until USFWS signs a ROD at the end of the NEPA process approving the HCP and issuing an ITP, should this be the decision that the USFWS finds appropriate. Because the HCP is not in effect at the time the wildfires occurred, the provisions regarding the development of a restoration plan for the affected non-acquired Reserve lands was not triggered. The 1995 Washington County HCP does not contain a similar measure. Refer also to response to FIRE-01.

Letter #- Comment # or Public Concern Statement #	Comment	Response
14432-1	<p>"We again request that the BLM and the FWS immediately pause their respective environmental review processes for the Northern Corridor Highway due to unknown impacts of the Turkey Farm Road and Cottonwood Trail wildfires on the Red Cliffs Desert Reserve/National Conservation Area, and the threatened Mojave desert tortoise populations and habitat. This pause is required by the National Environmental Policy Act, 42 U.S.C. 4321 et seq. (NEPA), the Endangered Species Act, 16. U.S.C. 1531 et seq. (ESA), the Federal Land Policy and Management Act, 43 U.S.C. 1701 et seq. (FLPMA), and the Omnibus Public Land Management Act of 2009, P.L. 111-11, 123 STAT. 991 (March 30, 2009). We request that BLM and FWS</p> <ul style="list-style-type: none"> <li>• Assess and examine the full ecological impacts of these fires and complete burned area assessments.</li> <li>• Adopt Emergency Stabilization/Burned Area Emergency Response (ES/BAER) Plans and a Burned Area Rehabilitation (BAR) Plans, and</li> <li>• Prepare and submit for public review and comment a supplemental draft environmental impact statement and habitat conservation plan."</li> </ul>	<p>Refer to response to FIRE-01. The BLM and other affected landowners are working to prepare appropriate plans and take actions to address the impacts of the Turkey Farm Road and Cottonwood Trail fires. Where appropriate, information about these efforts has been included in the EIS. However, the preparation of an Emergency Stabilization/Burned Area Emergency Response Plan(s) and a Burned Area Rehabilitation Plan(s) is beyond the scope of this EIS.</p>
H.65-249	<p><b>3.22.1.1 Vegetation Condition Class</b>                      "If these areas were re-evaluated today, they would likely be rated with a higher degree of departure from historic conditions (i.e., be rated a higher VCC). In addition, ongoing encroachment of annual grasses into the Red Cliffs NCA, the Reserve, and proposed Zone 6 is likely to promote higher degrees of vegetation departure in the future" (DEIS at 3-152). Table 3.22-1 displays YCCs for all lands within the Red Cliffs Desert Reserve"                      Issue:                      2. Most certainly vegetation in the area of the proposed Northern Corridor should be rated as very high, in contrast to Table 3.22-1 which indicates the whole NCA is relatively low.</p>	<p>The most recent data from LANDFIRE.gov were used in Table 3.22-1. LANDFIRE is a shared program between the U.S. Department of Agriculture Forest Service and U.S. Department of the Interior's wildland fire management bureaus under the direction of the Wildland Fire Leadership Council. LANDFIRE produces a comprehensive, consistent, scientifically based suite of spatial layers and databases for the entire United States and its territories.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-252	<p>3.22.2 Environmental Consequences 3.22.2.3 Direct and Indirect Impacts from Alternatives 2, 3, and 4 ""The construction of the highway would increase land accessibility to areas within the Red Cliffs NCA and the Reserve that are currently difficult to reach by vehicle." "This increased accessibility would improve response for wildfire suppression and provide easier access for fuel evaluation and management in areas adjacent to the Northern Corridor. The roadway itself may also act as a fire break, providing a barrier to the spreading of active wildfires and the spreading of nonnative plant species"" (DEIS at 3-154). Issue: 6. The DEIS assessment is incredibly one-sided. The fire risk caused the Alternatives 2, 3 or 4 would be significantly increased, and the benefit as a fire break would be zero. 80% of Utah's wildfires are human-caused, and most occur due to road access, either directly from vehicular operation or due to giving humans easy access to fire starting situations. This is an extremely biased and one-sided evaluation of the fire-benefit of a highway. 7. It is demonstrated on a frequent basis that highways are not effective fire barriers as wind-driven sparks easily hop a highway. 8. Any highway through the NCA would dangerously increase the risk of fire and extreme danger to tortoises and their habitat. It cannot be allowed. 9. From Bill Mader, PhD (former smokejumper and Washington County HCP administrator), ""The vast majority of people who talk about fire breaks, including using highways, have never been on a fire line and don't understand fire behavior. They should talk with the people in Paradise CA and other cities that were leveled by fire and had road ""fire breaks."" Some of these CA residents can't discuss it because they're in graveyards. The proposed Northern Corridor (NC) will not work as an effective fire break in today's era of mega fires, high temperatures and invasive plants. It is a good story line by those proposing the NC, but it's fiction-driven by an agenda to line the pockets of connected developers and cities and to destroy what is left of a magnificent place for wildlife and people. This level of biotic destruction has to be included along with other significant cumulative impacts. In effect, another piece of the reserve as we knew it, is gone, and it will not return.""</p>	<p>The Southwest Utah Support Area Fire Management Plan identifies roadways as manmade fire breaks that support suppression activities and provide for firefighter and public safety. The Northern Corridor, if constructed across the Red Cliffs NCA, would act as a fire break as identified in the Southwest Utah Support Area Fire Management Plan and would aid in fire suppression and management within the Red Cliffs Desert Reserve and NCA. Refer also to responses to FIRE-02 and FIRE-03.</p>

Appendix O Responses to Public Comments on the Northern Corridor – Highway Right-of-Way, Issuance of an Incidental Take Permit Final EIS and Draft RMP Amendments

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-253	<p>10. A GIS fire map should be prepared that depicts the final fire boundaries for the Turkey Farm Road Fire. The fire map should be compared with other existing GIS data layers, including the NCH alignments, past fire scars, and known occupied tortoise habitat. Where the Turkey Farm Road Fire occurred in a previous fire scar, the prospects for habitat restoration are bleak. The Northern Corridor Highway cannot be routed through a burned or re-burned area.</p>	<p>Map 3.22-1 in Appendix B of the EIS has been updated to include wildfire occurrences within the Red Cliffs NCA and the Reserve from 1976-2020 and includes the Turkey Farm Road and Cottonwood Trail wildfires. Sections 3.5 and 3.22 of the EIS contain an analysis of the Northern Corridor T-Bone Mesa, UDOT Application, and Southern alignments including analysis of previously burned areas and known occupied Mojave desert tortoise habitat.</p>
H.65-254	<p>"St. George Field Office RMP Amendments and Washington County HCP          ""The amendments to the SGFO RMP in proposed Zone 6 under Alternatives 2, 3, and 4 would result in similar management of fire and fuels resources as would occur under Alternatives 1, 5, and 6"" (DEIS at 3-155).          Issue:          11. This appears to be incorrect, due to the fact that the DEIS uses an inappropriately short time period, ignoring the planned road developments in and near Zone 6, which would greatly increase the fire danger."</p>	<p>The text referenced in the comment refers to the direct and indirect effects of the SGFO RMP amendments analyzed in Section 3.22 of the EIS. Impacts resulting from future road developments crossing BLM-administered lands would be analyzed and disclosed after an application is received.          Refer also to response to DATA-02.</p>
H.65-255	<p>""The amendments to the SGFO RMP under Alternatives 2, 3, and 4 would also further restrict authorized and casual uses of proposed Zone 6, including utility ROWs, mining and mineral activities, and recreation including camping, campfires, and competitive events. These activities can result in increased fire ignition sources, especially recreational camping and campfires. The restrictions on these activities under Alternatives 2, 3, and 4 would reduce ignition sources and promote a natural fire regime in proposed Zone 6"" (DEIS at 3-155).          Issue:          12. As in the comment above, the planned road developments greatly increase the fire danger."</p>	<p>Refer to response to H.65-254.</p>

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Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-256	<p>""Finally, under Alternatives 2, 3, and 4, additional resources would be available to land managers to manage wildfire in the Reserve, including proposed Zone 6. These additional resources and adaptive management funding are described in Section 1.4.2.5 and would provide opportunities to support fire management of SITLA lands in proposed Zone 6 and restore fire-damaged lands"" (DEIS at 3-155).</p> <p>Issue: 13. As evidenced by the 2020 fires in Zone 3, fire management is woefully insufficient."</p>	Comment acknowledged.
A.51-47	<p>"24 3-42 3.5.1.1 Comment: Through no fault of the authors, there was no opportunity to report the impacts of the Turkey Farm Road fire and Cottonwood Trail fire in July 2020. Please be sure that the effects of these fires are reported in the Final EIS, including revising Map 3.22-1."</p>	Map 3.22-1 in Appendix B of the EIS has been updated to include wildfire occurrences within the Red Cliffs NCA and the Reserve from 1976-2020 and includes the Turkey Farm Road and Cottonwood Trail wildfires. Refer also to response to FIRE-01.
A.51-76	We ask that the discussion of Vegetation Condition Classes (VCC) be reconsidered in light of these fires in the Final EIS, and that new indices be developed as necessary to describe conditions following the fires, which requires reconsideration of Table 3.22-2.	The most recent data from LANDFIRE.gov were used in Table 3.22-1 in the EIS. LANDFIRE is a shared program between the U.S. Department of Agriculture Forest Service and U.S. Department of the Interior's wildland fire management bureaus under the direction of the Wildland Fire Leadership Council. LANDFIRE produces a comprehensive, consistent, scientifically based suite of spatial layers and databases for the entire United States and territories. Where the most recent resource conditions reported by LANDFIRE may have been affected by wildfires, including the Cottonwood Trail and Turkey Farm Road wildfires, these effects are noted in Table 3.22-1 of the EIS.

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-487	14- Residual Impacts: The DEIS must provide data and address residual impacts related to predator subsidies, poaching, vandalism, catastrophic wildfire (including the failure of highways to act as fire breaks), climate change, and invasion of exotic annuals. (70). Addressed in the DEIS: Not adequately addressed. The DEIS addresses many of these residual impacts but fails to adequately discuss the impact of catastrophic wildfire, highways functioning as ignition sources, and highways failing to act as firebreaks.	An analysis of potential impacts on wildlife and vegetation communities can be found in Sections 3.2 and 3.4 of the EIS. Impacts of climate change on fire and fuels management can be found in Section 3.28.1.21 of the EIS. Refer also to response to FIRE-02.
A.51-75	Based on BLM's statements in Section 3.22.1 about threat of future fires, we believe that these two fires, alone, should be construed as Changed Circumstances; that, as a result of these two events, the southern portions of the Reserve are now more vulnerable to new fires and that development of the Northern Corridor will predictably increase the likelihood of new fires. We believe that this fact, alone, is sufficient reason for BLM to deny the Northern Corridor.	Refer to responses to FIRE-01 and A.18-1.

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-262	<p>It is likely that as climate change progresses and absent efforts to control invasive species, including brome grasses in particular, that fire will increase in size and frequency. Areas where fires have historically burned will likely burn again. Neither the DEIS or the HCP adequately address the linked issues of fire and invasive exotics, despite significant published science on the matter (Brooks and Pyke 2001; Brooks and Berry 2006; Bradley et al. 2018; Balch et al. 2013; Chambers et al. 2014) For example Brooks and Pyke (2001) recognize that "The management of fire and invasive plants must be closely integrated for each to be managed effectively".</p> <p>The DEIS (at 3-155) states: "Finally, under Alternatives 2, 3, and 4, additional resources would be available to land managers to manage wildfire in the Reserve, including proposed Zone 6. These additional resources and adaptive management funding are described in Section 1.4.2.5 and would provide opportunities to support fire management of SITLA lands in proposed Zone 6 and restore fire-damaged lands." Section 1.4.2.5 does not occur in the DEIS or the HCP. We were unable to locate any discussion of the additional resources in the documents beyond the statement above. Based on the problematic and aspirational issues identified in Appendix D of the HCP, the referenced additional resources are a key in the public and decision-makers ability to evaluate the effectiveness of the DEIS and HCP. Therefore, a revised or supplemental DEIS must include a robust discussion of those additional resources.</p>	<p>Section 3.22 of the EIS has been updated to include the sources identified by the commenter to better describe the relationship between wildfires and invasive plant species, especially invasive grass species. These sources have also been added to Appendix A, List of References, in the EIS. Further discussion of this relationship can also be found in Section 3.5.1.1. Also described in Section 3.22 is the new fire regime (uncharacteristically large wildfires during the summer months) within the Reserve and NCA as a cause-and-effect of the increased production of invasive annual brome grasses, citing the current RMP, which includes all sources used to make that determination. Section 3.28.22 describes the relationship between climate change and the spread of invasive species.</p> <p>The document reference cited in the comment contained a typographical error. This citation has been corrected to direct the reader to Section 2.4.2.5 of the EIS, which contains information about additional resources and adaptive management funding that would be provided by the Amended Washington County HCP. Full details of the Reserve Habitat and Fire Management measures proposed by Washington County are included in the Washington County Amended HCP.</p>

**0.3.13 General Wildlife**

<b>Letter #- Comment # or Public Concern Statement #</b>	<b>Comment</b>	<b>Response</b>
A.05-60	<p>General Comment regarding Habitat Fragmentation by ROW Alternatives                      EIS Text: NA                      Comment: The Draft EIS assumes that the negative impacts of "habitat fragmentation" increase with magnitude as the size of the Reserve patch south of the ROW alternatives increases. However, the relationship between patch size and negative impacts is not that simple. Habitat fragmentation is, in essence, a concept that captures interrelated impacts from edge effects, minimum patch size, and connectivity. Therefore, habitat fragmentation effects must be described in terms of all three metrics, the impacts of which are resource-specific. For instance, habitat fragmentation can create small, isolated, habitat patches that because of the small size and isolation are no longer usable as habitat for a particular species. This adverse impact lessens as the fragment patch size increases and the degree of connectivity across the barrier increases-both of which are relevant to the activities under evaluation. Edge effects are further influenced by the shape of the patch and the amount of edge it creates. Therefore, larger habitat fragments may actually be more beneficial to the resources under review than smaller fragments. The Draft EIS should more carefully evaluate the habitat fragmentation impacts and the relative magnitude of negative impact of each ROW alternative. The presumption that larger fragments are more negatively impactful may not be supported.</p>	Refer to response to A.05-1.

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.05-61	<p>Chapter 3.4.2.3, p 3-32                      EIS Text: Fencing the eastern border of proposed Zone 6 would also result in adverse impacts to wildlife. These include fragmentation of wildlife habitat because the fence would create a border that wildlife would not be able to cross and result in potential injury or mortality if animals collide with or become entangled in the fence.                      Comment: The eastern border of Zone 6 is at the urban interface, so this fence would not further fragment wildlife habitat. The analysis already assumes all the non-federal lands will be developed. This sentence claims that the urban interface fence will be adverse for wildlife, while its very purpose is to keep wildlife from the harm they are exposed to on roads and other dangers in an urbanized environment. While the fence may cause some detrimental impacts, overall fencing is intended to mitigate wildlife impacts and has been long considered a best management practice to avoid impacts to MDT. Both the positive and negative impacts should be clearer so as to avoid the false impression that a fence should not be constructed at the urban interface. The Draft EIS provides no supporting rationale for the statement that wildlife in this area would actually collide with or become entangled in the type of fencing contemplated by the Amended HCP. Without additional support, this statement seems highly speculative. The Draft EIS should more carefully consider how the specific types of fencing contemplated by the Amended HCP would actually impact the types of wildlife likely to occur across an urban-wildlife interface.</p>	<p>The EIS text was revised to indicate that the fence may result in some animals becoming entangled, but it would be a barrier between suitable wildlife habitat and adjacent urban development, which would reduce potential for urban-wildlife conflicts.</p>
5267-2	<p>We constantly have roadrunners in our yard and there is a grave threat to the roadrunners because of habitat loss and fragmentation from roads and urban sprawl which limits where these birds can comfortable live. We also have a covey of quail that nest and live in a large bush directly in the path of the proposed highway. Where are they to go also? Bulldoze their home?</p>	<p>Both roadrunners and quail are highly adaptable species that can easily adjust to environmental changes such as a new road or a new housing development. They can often be found thriving in urban environments, including city centers. There is abundant natural habitat in the areas surrounding the proposed roadway where individuals may disperse. While they are not covered under the ESA, roadrunners are protected under the Migratory Bird Treaty Act (MBTA). Active nests would be avoided, and multiple mitigation measures would be put in place to protect wildlife, including pre-construction nest surveys.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
9279-2	<p>The highway would interrupt the free passage of wildlife, including birds, mammals, and the threatened Mojave Desert tortoise. The highway would cut the natural connection of wildlife habitat in the ephemeral washes, which are the only surface water in the area, and which serve as the best bird and wildlife habitat. (Even if you build culverts or underpasses, that would compromise the natural passage of the animals.)</p>	<p>UDOT worked with the BLM and the USFWS to identify, and propose in their revised POD, appropriate passage structures to allow connectivity for wildlife on both sides of the Northern Corridor. A sufficient number of under-road passages, based on the alternative, would be located along the corridor to allow wildlife passage and flow of surface water. To the extent reasonably feasible and consistent with project design and engineering, UDOT would consider additional locations for desert tortoise passages where natural topography creates an opportunity for wildlife to cross under the roadway safely.</p>
A.19-2	<p>We found no checklist of birds in the NCA, but we note that 244 species have been recorded at the Lytle Ranch Preserve, 22 miles west of the NCA. A checklist for Zion National Park, 40 miles to the east, shows 290 species. MOS members have visited both the Lytle Preserve and Zion. To help visitors enjoy the birds of this area, we urge BLM to publish a checklist of the birds recorded in Red Cliffs NCA, comparable to that published for Zion National Park.</p>	<p>Comment noted.</p>
H.65-290	<p>Approval of the Washington County HCP and Amendments to the SGFO RMP designating Zone 6 as part of the Reserve would result in the beneficial effect of protecting general wildlife habitat, offsetting and reducing the overall effect of development, especially on private lands.</p> <p>Therefore, to varying degrees, all alternatives would result in incremental minor cumulative impacts to general wildlife within the analysis area.</p> <p>Issue</p> <p>8. The highlighted statement is not backed by a factual reference, and we contend it is incorrect due to the future planned projects that have been omitted from table 3.28-1.</p> <p>We contend the effects would be significant.</p>	<p>Planned roadways near proposed Reserve Zone 6, such as the Western Corridor, were mistakenly omitted from Table 3.28-2 in the EIS. The cumulative effects analysis in the final EIS has been revised to address these potential roads. These roadways, if constructed, would be outside of proposed Zone 6, and any impact to the Conservation Program or biological values of habitat in proposed Zone 6 and the Reserve would be evaluated in future analyses. While the Western Corridor is proposed adjacent to the western boundary of proposed Zone 6, the planning horizon is 2041-2050 and the funding and construction priorities may change. If constructed, this roadway would fragment wildlife habitat. Conservation measures would be determined during the environmental review process for the project, which would be subject to ESA Section 7 consultation.</p>

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13603-4	As a member of the Red Cliffs Audubon and avid birder in this area, I am also concerned about the impact this highway might have on the migratory birds that pass thru this uniquely biodiverse habitat. There are potential negative impacts to the burrowing owl which reside in these areas. I am also concerned about the impacts on threatened, endangered and BLM-sensitive bird species found in and near Red Cliffs, but that may or may not be present near the proposed highway: Southwestern flycatcher, Yellow-billed Cuckoo, Bald Eagle, Ferruginous Hawk, Lewiss woodpecker, and Mexican-spotted owl. This area is one of the areas of Washington County highlighted during the annual Red Cliffs Bird Fest. Any impact on the bird population area, will have a negative impact on how people view this area and its sense of responsibility to the birds and other wildlife around us.	The roadway would result in habitat loss for migratory birds. However, conservation measures would be implemented to prevent adverse impacts to nesting birds. Additionally, abundant habitat is available in the surrounding vicinity where displaced individuals may disperse. Furthermore, the establishment of proposed Zone 6 would protect habitat that could otherwise likely be developed in the future, and much more habitat than would be lost from development of the Northern Corridor. Species protected by the ESA that were considered for analysis are addressed in Appendix G of the EIS, including the justification for excluding species from further analysis. While suitable habitat is present near the roadway for Mojave desert tortoise, no suitable habitat is present for most ESA-listed species, such as southwestern willow flycatcher, yellow-billed cuckoo, or Mexican spotted owl.
H.65-472	1- Impacts to other fish and wildlife habitat: The DEIS must address direct, indirect, cumulative, and residual NCH impacts related to multispecies habitat connectivity and migration routes for all wildlife. (99). Addressed in the DEIS: No.	Conservation measures were under development at the time the Draft EIS was released. Those measures are now finalized and include a sufficient number of passages based on the alternative selected, which would be installed along the proposed Northern Corridor highway that will benefit wildlife connectivity and provide wildlife migration routes.

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H.65-491	<p>3. The potential for road mortality of animal species attempting to cross a new highway should be analyzed, as well as these road mortalities attracting scavengers such as ravens and coyotes. Such subsidy of predators can lead to increased predation on native species such as Mojave desert tortoise, other reptiles, mammals and nesting birds. The DEIS should analyze how predators that likely cause mortality in special status wildlife species can and would be controlled. (94)</p> <p>Addressed in the DEIS: Not adequately. The DEIS discusses fencing of the NCH to prevent road mortalities but fails to discuss how fencing is not a failsafe method. Regular maintenance is required and the DEIS does not discuss this, nor does it discuss predator control measures.</p> <p>4. The DEIS needs to include an inventory of existing wildlife corridors in the NCA and all proposed mitigation lands in order to evaluate the effect of the proposed highway on local wildlife movements. With ongoing climate change, these critical wildlife movement corridors are essential to be maintained and protected to the fullest extent possible in order to allow wildlife to migrate to suitable habitat as climate change proceeds. Some species may need to move seasonally, generally from higher to lower elevations and back again. Other species may need to move based on the temporary location of surface water sources to drink, or to breed for amphibians, or when fires destroy habitat and they must move to find forage and survive. (94). Addressed in the DEIS: No. The DEIS fails to discuss wildlife corridors.</p>	<p>3. The potential for road mortality from animals attempting to cross the new roadway, as well as roadkill attracting predators to this area, was discussed in Section 3.4.2.3 of the EIS. Additionally, design features and conservation measures are included in Appendix D of the EIS to prevent ravens and other predators from being attracted to the area during construction (e.g., removing trash, lids for trash containers, and no standing water). Mitigation measures that have been developed since the Draft EIS was published include a measure for predator control and a measure requiring UDOT, through coordination with Washington County or other entities, to maintain the exclusion fencing within the ROW.</p> <p>4. Wildlife corridors typically follow washes. Since the DEIS was published, additional work has been done to identify tortoise passageways. Design features have been added to the project that include a sufficient number of large crossing structures, spread out over the length of the new roadway, intended to allow tortoises to cross freely from one side of the roadway to the other. These passageways would be beneficial for movements of other wildlife species in the area, as well.</p>

**0.3.14 Geology, Mineral Resources, and Soils**

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A.28-3	Biological soil crust is a critical soil resource in desert ecosystems. The project footprint will be over 150 square acres. The DEIS does not analyze how the removal of this much biological soil crust will affect vegetation, soils, nitrogen fixation, and nutrient cycling.	Section 3.7.2.3 (Direct and Indirect Impacts from Alternatives 2, 3, and 4) of the EIS has been revised to describe direct and indirect impacts to biological soil crust associated with each alternative. It is anticipated that for Alternatives 2 through 4, grading activities would disturb and remove biological soil crusts that protect soil from erosion, improve water retention, provide a source of organic matter, and contribute nitrogen to soils. Increased erosion due to construction can also bury and damage crustal organisms. Restoration of biological soil crusts in arid environments can take up to 250 years once the surface area is no longer disturbed. Potential future impacts include the removal of topsoil because of excavation for underground utilities or structures for aboveground utilities under Red Cliffs NCA Amendment Alternative C, soil compaction because of the use of construction equipment, additional erosion as a result of soil disturbance, and future disturbance to biological soil crusts.
H.65-163	The DEIS does not describe the on-site cryptobiotic soil crusts. The proposed projects will disturb an unidentified amount of these soil crusts, causing them to lose their capacity to stabilize soils and trap soil moisture. The DEIS fails to provide a map of the soil crusts over the proposed project sites, and to present any avoidance or minimization measures. It is unclear how many acres of cryptobiotic soils will be affected by the proposed projects. A revised or supplemental DEIS must identify the extent of the cryptobiotic soils on site and analyze the potential impacts to these diminutive, but essential arid land ecosystem components.	Survey data for the average percent cover of biological survey crust for each alternative has been added to Table 3.7-1 (and the total acres of disturbed biological soil crust calculated). Additional discussion of direct and indirect impacts to biological soil crusts due to construction has been included in Section 3.7.2.4 in the EIS.
H.65-497	1- Resources - Surveys for any new cave and karst resources should be undertaken along the proposed corridor and a buffer zone, to ensure no unidentified resources are impacted. (76)	The following text was added to Section 3.7.1.2 of the EIS: “No cave or karst resources were observed during a vegetation survey conducted in the project area in March and April 2020 (BLM 2015a, Jacobs 2020g).”

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H.65-498	<p>1- Impacts to cave, karst and soil resources: The DEIS must address NCH impacts related to cave, karst, biological soil crust, soil types, soil health, and related salinity displacement. (77). Addressed in the DEIS: No.</p>	<p>For comment regarding cave and karst resources refer to H.65-797.</p> <p>For comment regarding biological soil crust, soil types and soil health, refer to H.65-163.</p> <p>Soil types and impacts to soil health are discussed in Sections 3.7.1.2 and 3.7.2.3, with the acres of disturbed soil by soil types presented in Table 3.7-1. Section 3.7.3.4 was revised and describes salinity displacement. Erosion of soil types with high salt concentrations such as the strongly saline St. George silt loam can increase salinity in surface runoff and receiving bodies of water such as the Virgin River.</p>
H.65-629	<p>2- Mining Requests for Inclusion in the DEIS: GEM Mine Impacts: The DEIS should analyze the direct, indirect and cumulative impacts of future work at the GEM mine on BLM land near Zone 6, five miles north of Sun River:</p> <ul style="list-style-type: none"> <li>• The cumulative impacts of mineral extraction on the threatened Mojave desert tortoise, including air and noise pollution, dust accumulation affecting vegetation growth, and increased traffic on roads like the Western Corridor and potentially the extensions of Navajo Drive and Green Valley Drive inside Zone 6 to accommodate the "hauling" of gypsum and other minerals.</li> <li>• As the market allows, hauling traffic could increase to 100,000 tons per year, or 15-19 hauls per day using roads that fragment or impact tortoise habitat in Zone 6. (142)</li> </ul> <p>Addressed in DEIS: No.</p>	<p>The GEM Mine and associated haul route have been added to Table 3.28-2 in the EIS on actions to consider in the cumulative effects analysis. The GEM Mine is distant enough from the proposed Northern Corridor alternatives that no cumulative effects from noise would occur. Atmospheric dust that settles on vegetation or special status plants (including that from the mine, Northern Corridor construction and operations, and other ground disturbing actions) is accounted for in Section 3.3 of the analysis. The cumulative effects on Mojave desert tortoise, including habitat fragmentation and ongoing loss of habitat, is acknowledged, along with the benefits of the Northern Corridor project in designating proposed Reserve Zone 6 to protect against the loss of habitat. The specific effects of the GEM Mine would be addressed in a separate NEPA analysis and Section 7 consultation and are beyond the scope of this project.</p>

**0.3.15 Washington County Habitat Conservation Plan**

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A.51-91	<p>HCP 66 i</p> <p>Exec SumText: “A Renewed/Amended ITP is needed to extend the County’s access to previously authorized, but unrealized, incidental take of the MDT for an extended term of 25 years. Amendments to the 1995 HCP are needed to incorporate developments in the best available science pertaining to the MDT, comply with current USFWS regulations pertaining to ITPs, incorporate current policy regarding amended HCPs (as applicable), and clarify the language to more accurately reflect the intent of the 1995 HCP.”</p> <p>Comment: The 2020 HCP needs to examine the effectiveness, implementation, and adequacy of implementing the Conservation Program of the 1995 HCP, and its appropriateness under current conditions. Information on declines in numbers and densities of tortoises and degradation/loss of tortoise habitat in the areas managed for tortoises (e.g., Fridell et al. 1998 and McLuckie et al. 2020) shows that management has not been effective in moving toward accomplishing the biological goal for the MDT. Implementation of conservation actions and mitigation is not working for the tortoise. Based on this information, the 2020 HCP needs to do more than continue actions previously identified in the 1995 HCP. The modified/additional conservation actions and mitigation should be linked to the stressors causing the greatest degree and intensity of threats to the UVRU population of tortoises. Consequently, the sections of the HCP that describe Conservation Program Budget and Funding Assurances need to be revised based on lessons learned from the management of the Reserve since 1996, threats previously not addressed in the HCP or downplayed regarding their importance (e.g., invasive plant species, fire), and the anticipated increase in the number and/or severity of impacts in the future from human population growth, climate change, and their associated stressors (e.g., invasive species, new pathogens, fire, extreme drought and other weather events, etc.).</p>	<p>Whether to prepare an HCP and seek an ITP are the decisions of the applicant, with input from the USFWS as requested. Likewise, the contents of an HCP are decided upon by the applicant. Table 2.5a of the HCP Handbook (USFWS and NMFS 2016) clarifies the roles and responsibilities of the various stakeholders in the HCP process, indicating that the applicant decides the content of the HCP with support, contributions, and review by the USFWS. The USFWS worked closely with the County to provide technical expertise and advice during the process of developing the Amended HCP. Ultimately, the role of the USFWS is to determine whether a proposed HCP meets specified statutory criteria for the issuance of an ITP. USFWS considers Section 10(a)(2)(A) of the ESA and its implementing regulations at 50 CFR 17.22 and 17.32; and the 2016 HCP Handbook (USFWS and NMFS 2016) as the most current regulations, policy, and standards for HCP and associated amendments. The USFWS has worked closely with the County in developing an Amended HCP with the intent that the document prepared by the County will meet issuance criteria. If the applicant’s HCP meets the issuance criteria and is statutorily complete, the USFWS shall issue an ITP. In the Amended HCP, the County has committed resources during</p>

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		<p>the new ITP term (e.g., funding and staffing) towards achieving its Community and Biological Goals and Objectives. The USFWS will review the Amended HCP to determine whether issuance criteria are met and document the agency's determinations in a Findings document at the end of the EIS process.</p> <p>In making a determination regarding whether the Amended HCP meets ITP issuance criteria, the USFWS will carefully consider all data, best available science, information, and analysis associated with the Amended HCP and this EIS. The USFWS will also carefully consider the implementation of the 1995 HCP, the status of the species, and the Amended HCP effects and conservation program.</p> <p>The County has met its obligations under the 1995 HCP and submitted a timely application for renewal of the original ITP. The USFWS is considering the County's Amended HCP, as revised since the publication of the Draft EIS and Draft Amended HCP, to ensure all of the criteria for issuance of the requested ITP are met.</p>

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H.65-77	<p>While the Washington County HCP is focused on a single species - the desert tortoise - the most recent guidance provided by the USFWS' 2016 Habitat Conservation Planning and Incidental Take Permit Processing Handbook (Handbook) clearly encourages inclusion of listed and sensitive plant species as covered species under HCPs. Section 3.7 of the Handbook entitled Other Compliance Requirements discusses listed plants and critical habitat and states:</p> <p>"A project proposal may affect other resources for which the Services are responsible. Although an applicant may not be on the "hook" for effects to listed plants, critical habitat, or migratory birds, the Services do have responsibilities for these resources under the ESA or other laws as described below."</p>	<p>The HCP Handbook (USFWS and NMFS 2016) encourages but does not require that multiple species are covered in an HCP. During early discussions regarding the Amended HCP, the USFWS encouraged Washington County to consider including additional Endangered Species Act (ESA) listed species in the Amended HCP. The species discussed by the BLM and USFWS and Washington County's rationale for not including those species is included as Appendix C of the Amended HCP.</p> <p>As part of the assessment in whether to issue an Incidental Take Permit, the USFWS is evaluating the potential effects of the Amended HCP to ESA-listed plant species in the EIS and appropriate ESA intra-service Section 7 consultations.</p>
H.65-79	<p>Handbook at 3-28 (emphasis added). Here, listed plants have the potential to be "adversely affected by the proposed covered activities". Although Appendix C of the HCP attempts to downplay the potential for adversely affecting the listed plants and their critical habitat (for those that have federally designated critical habitat - see discussion below) Section 3.7.2 of the Handbook explicitly addresses listed plant and their designated Critical Habitat stating:</p> <p>"In the Services' intra-Service consultation prepared for its incidental take permit decision, we must analyze and identify measures to conserve listed plant species as well as any designated critical habitat. Like any other Federal agency, the Services may not undertake an action that is likely to jeopardize the continued existence of listed plants or destroy or adversely modify critical habitat. Although an applicant is not responsible for the Services' compliance with ESA section 7, it is to their benefit to address impacts to listed plants or critical habitat in their HCP to help us meet our obligations under section 7."</p>	Refer to response to H.65-77.

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H.65-82	The various federal documents on the status of the plants identify that none of the listed plant species have adequate mechanisms to assure conservation of the species into the future. The HCP must be clearly identified, science-based justification as to why these listed plants are not able to be amended into the HCP. Otherwise they must be included in the amended to the HCP as "covered species".	Refer to response to H.65-77.
H.65-83	Recent publicly available data sets are not available for most of the BLM sensitive plants. The HCP must also consider and include the appropriate unlisted, BLM-sensitive plant species as covered species in the HCP amendment in order to provide comprehensive conservation now and prevent listing in the near future.	<p>The USFWS’ HCP Handbook (USFWS and NMFS 2016) provides guidance on including Non-ESA-Listed Species in an HCP. As outlined in the HCP Handbook, (USFWS and NMFS 2016) Covering non-ESA-listed species in an HCP is a decision that should be based on the likelihood of listing, risk of take, availability of existing information, additional monetary costs, and additional time required to include them in the HCP. Coverage of non-listed species should also be judged in terms of feasibility from the applicant’s point of view, overall benefits to the species, and whether there is sufficient species information available for the USFWS to determine if covered activities may affect the species.</p> <p>Washington County chose not to include the BLM-sensitive species in the Amended HCP. BLM Manual 6840 clarifies that species designated as Bureau sensitive must be native species found on BLM-administered lands for which the BLM has the capability to significantly affect the conservation status of the species through management. Because the Amended HCP would not be applicable to Federal lands and BLM-sensitive species by definition are “native species found on BLM-administered lands for which the BLM has the</p>

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		capability to significantly affect the conservation status of the species through management” including the species in the Amended HCP would not provide additional benefits to the species on Federal lands that warrant their inclusion.
A.44-2	The ESA regulations provide for formal objections to applications for Incidental Take Permits (ITP). Pursuant to 50 CFR Section 17.22 (e), this is my formal objection to the application of Washington County for a new, revised, renewed, or amended ITP under the inadequate draft Habitat Conservation Plan (HCP) that the county provided with its ITP application. This ITP application and draft HCP are included within the overall National Environmental Policy Act (NEPA) Draft Environmental Impact Statement (DEIS) analysis relating to the proposed Northern Corridor Highway (NCH). My objection also includes the draft Implementation Agreement (IA) that the County submitted with its ITP application and draft HCP.	The USFWS acknowledges the formal objection(s) on this ITP application and will follow the process as outlined in the ESA regulations at 50 CFR Section 17.22(e).
A.44-3	<p>My objection is based on each of the grounds summarized immediately below. The Washington County ITP application, draft HCP, and draft IA are inadequate because collectively they:</p> <ol style="list-style-type: none"> <li>1) Do not address, analyze, or include in their calculations the massive recent fires in the RCDR and BLM RCNCA and the county-admitted significant associated MDT mortality and habitat loss</li> <li>2) Do not have adequate NEPA analysis because the DEIS fails to address the “significant new circumstances or information” from the massive fires and associated MDT mortality and habitat loss and no Supplemental DEIS is planned at this time to provide the required NEPA analysis</li> <li>3) Falsely claim that past HCP implementation has been successful despite a 41 percent decline of MDT in the RCDR and a 24 percent decline of MDT in the Upper Virgin River Recovery Unit (UVRU)</li> <li>4) Do not demonstrate how they would specifically comply with the ESA Section 10(a)(2) requirements for ITP approval</li> <li>5) Do not minimize and mitigate the take of MDT to the maximum extent practicable because they improperly condition many necessary MDT conservation measures on approval of the NCH, and similarly condition or undermine some proposed MDT conservation measures with equivocal terms like “may” or “voluntarily commit”</li> <li>6) Do not commit to adequate funding because they have failed to spend a now surplus of about \$7,000,000 in the county HCP fund despite increasing MDT threats and ongoing MDT population declines, while the county has lavishly spent to promote</li> </ol>	<p>The USFWS acknowledges the formal objection(s) on this ITP application and will follow the process as outlined in the ESA regulations at 50 CFR Section 17.22(e).</p> <p>Refer also to responses to A.51-91, FIRE-01, DP-04, A.35-8, and A.05-2.</p>

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	<p>controversial projects (like the NCH and Lake Powell Pipeline) that would cause additional MDT mortality and habitat loss</p> <p>7) Do not demonstrate how they can stop or even slow the continuing MDT declines thereby failing to prevent the clearly foreseeable “appreciable reduction in the prospects for tortoise conservation and recovery” in the RCDR and UVRU</p> <p>8) Do not demonstrate how the foreseeable amount of MDT incidental take would be fully offset by the proposed conservation measures</p> <p>9) Do not analyze or assess the risks associated with relying on SITLA to support and implement MDT conservation measures when SITLA’s primary legal obligation is to maximize revenue for its beneficiaries, and a SITLA representative acknowledged that SITLA “could walk at any time” on its HCP commitments if lucrative development opportunities arise</p> <p>10) Do not acknowledge that it improperly relies on BLM MDT conservation measures that BLM can and arguably should implement independently, and thereby improperly seeks mitigation credit for actions beyond its jurisdiction or control</p> <p>11) Attempts to improperly use the proposed NCH and associated mitigation as a “changed circumstance”, and fails to explain why only the NCH qualifies when the county supports the Lake Powell Pipeline, Adventure Park, Western Corridor, and other proposed projects that would harm MDT and their habitats</p> <p>12) Unfairly only considers future MDT down listing as a foreseeable “changed circumstance” while omitting potential future MDT up listing from “threatened” to “endangered” given the dramatic range wide MDT population declines</p> <p>13) Improperly seeks to carry forward its unused authorized incidental take from the original HCP while simultaneously proposing to significantly harm RCDR Zone 3 tortoises that that original HCP determined were the “core” of the RCDR as the HCP’s primary conservation measure</p> <p>14) Improperly seeks to carry forward the NEPA analysis and Biological Opinion (BO) from the original HCP to justify its current application, despite the substantial new and relevant MDT related scientific information obtained over the intervening quarter-century, and the significant MDT population declines during that time period</p> <p>15) Improperly seeks to carry forward the original HCP’s No Surprises benefits despite the county’s unfortunately harmful NCH “changed circumstance” surprise that would fundamentally undermine the RCDR’s integrity under that original HCP.</p> <p>16) Improperly cause the substantial “adverse modification” of MDT designated “critical habitats” without adequate mitigation and when feasible NCH alternatives exist outside of the RCDR and MDT critical habitats (DEIS Alternatives 5 and 6).</p> <p>17) Improperly fails to address public concerns that the county has a clear pattern of favoring development projects that are harmful to MDT, and completely dominates</p>	

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	<p>HCP administration by stacking the Habitat Conservation Advisory Committee (HCAC) and Technical Committee (TC) with members who virtually always support the county’s pro-development positions</p> <p>18) Improperly conditions placement of long overdue Cottonwood Road (aka Turkey Farm Road) culverts needed for Zone 3 tortoise movements on approval of the NCH even though these culverts can and should be independently implemented</p> <p>19) Improperly uses a new surrogate habitat metric that may not be reliable or consistent with previous tortoise data, and that recognizes that (like with the “discovery” of Zone 6 tortoises) the lack of survey data for large areas of potential habitat on non-federal lands makes application of this metric highly speculative over those areas</p> <p>20) Improperly fails to consider implementing any seasonal or permanent closure on public use (administrative use would continue) of the popular Cottonwood Road (aka Turkey Farm Road) that bisects RCDR Zone 3 and where use of this road is linked to several devastating fires, including the recent one that burned about 12,000 acres of RCDR MDT habitat</p> <p>21) Improperly fails to commit to any consistent mowing of highway rights of way in MDT habitat despite the clear threat posed by dried cheatgrass and other plants in these rights of way, and the obvious benefit that such mowing would provide in terms of reducing the risk of future road-related fires spreading into MDT habitat (both massive recent fires were connected to road uses)</p> <p>22) Improperly would allow competitive events in Zone 6 even though these are not allowed in the other RCDR zones and they may cause cumulative adverse impacts that undermine the alleged NCH related mitigation benefits of establishing Zone 6</p> <p>23) Improperly ignores any potential genetic connections or cumulative effects on potential, un-surveyed MDT populations and habitats on nearby BLM Arizona Strip and Arizona State lands immediately south of the county and state lines (because MDT biology does not recognize state or other jurisdictional boundary lines on maps)</p> <p>24) Fails to adequately analyze the cumulative adverse impacts on MDT from many proposed or foreseeable projects, and relies on an inadequate DEIS that, among other things, likewise fails to adequately analyze such MDT related cumulative impacts</p>	

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A.44-4	<p>Section 6(B) of the draft IA provides a key example. It notes that each party agrees to fulfill its obligations under the IA and HCP, but the IA never expressly identifies these duties and obligations. The central purpose of the IA is to lay out these specific duties and obligations for each party to the IA. By simply citing the draft HCP, the draft IA defies this purpose. In addition, Section 6(D)(1)-(3) provides for some Party commitments but does not describe specifically what they are. Indeed, if an IA is needed, then its job is to give specific direction to each Party so there can be no doubt or ambiguity about what they are expected to do and when they must do it. The draft IA fundamentally fails to do that.</p>	<p>Per the USFWS HCP Handbook (USFWS and NMFS 2016), Implementation Agreements (IAs) are joint USFWS/applicant documents that clarify the provisions of an HCP and specify how the HCP will be carried out. The Implementation Agreement has been revised, in coordination with the USFWS and other partners, since the publishing of the Draft EIS. The revised Implementation Agreement is available on BLM's ePlanning website. The USFWS will evaluate the Implementation Agreement as part of the Amended HCP to determine if the documents meet issuance criteria. If the applicant's HCP and associated Implementation Agreement meets the issuance criteria and is statutorily complete, the USFWS shall issue an ITP.</p>

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A.44-5	<p>The County's "reason" for this ITP renewal is inappropriate. The County should not be able to carry forward and use the previously authorized take from the 1996 ITP. This take level is based on outdated science and does not reflect the current facts. Given the significant and continuing decline in RCDR, NCA, and UVRU tortoise populations in the intervening quarter-century, a new take level must be determined consistent with the current science, factual situation, and laws. The “reason” for this ITP should be to ensure efficient, effective, and timely implementation of an approved HCP. Doing so would advance bona fide tortoise conservation efforts while allowing development to continue on non-Federal lands with tortoise habitat.</p>	<p>The incidental take that was permitted previously and not used will not be carried forward. If the USFWS decides to issue a permit for this application, the scope and extent of the authorized taking will be clearly identified in a new permit. The previously issued permit will no longer be valid.</p> <p>The USFWS recognizes that the County achieved its original commitments and used a portion of its original take authorization. Any conservation benefits gained under the original term will be considered in USFWS’s analysis of the Amended HCP.</p> <p>As written, the HCP is requesting a permit that is unchanged in conservation program except under certain changed circumstances. The take being requested represents generally the same level of take requested in the 1995 HCP (adjusted for updated survey information) and provided in the 1996 ITP. In addition, the County did not use the full level of take provided under the 1996 ITP during its 20-year term.</p> <p>Refer also to responses to A.05-2 and A.51-91.</p>
A.44-6	<p>As previously indicated, it is not appropriate to “carry forward” the previous HCP and ITP provisions in light of the significant changed circumstances that have occurred over the past quarter century.</p>	<p>Refer to response to A.44-5.</p>
A.44-7	<p>The dominant purpose of an IA should be to ensure that the HCP is properly and adequately implemented to advance the conservation and recovery of the ESA listed species.</p>	<p>The USFWS recognizes that the purpose of an Implementation Agreement is partly to ensure the implementation of the HCP.</p> <p>Refer also to response to A.44-4.</p>

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A.44-8	Note that when any conflict occurs, the IA controls rather than the HCP. This is backward since the HCP is the basis for FWS issuance of the ITP. This is also problematic because this draft IA improperly relies on the HCP in terms of the specific duties of the Parties. A vague and incomplete IA should not supersede the HCP.	As stated in Section 6 of the Implementation Agreement, the terms of the Implementation Agreement and the terms of the Amended HCP shall be reasonably interpreted to be supplementary to and consistent with each other. In the event of any direct conflicts between the terms of this Implementation Agreement and the Amended HCP, the terms of the Amended HCP shall control. Refer also to response to A.44-4.
A.44-9	Note that the previous ITP is superseded once the New ITP takes effect. Elsewhere the County wants to “carry forward” or “renew” past HCP and ITP provisions, but apparently not in this draft IA provision. Despite the county’s inconsistencies, I concur that a new IA should supersede a previous one.	The new ITP and Implementation Agreement will supersede and replace the 1996 ITP and Implementation Agreement in its entirety. Refer also to response to A.44-4.
A.44-10	This provision [7. B. Effect of a Certificate Holder Default] is poorly written and confusing. It seems to incorrectly go from the New ITP (2020) to the Original ITP (1996), when this draft IA says that it entirely supersedes the Original ITP. If superseded, there should be no legal effect of nor references to the Original ITP.	The new ITP and Implementation Agreement will supersede and replace the 1996 ITP and Implementation Agreement in its entirety. Refer also to response to A.44-4.
A.44-11	The "attempted to be substantially modified" text is improperly vague. It does not identify which Party determines when this condition may be triggered, how they make that determination, and how “attempted” and “substantially modified” are defined. For example, if the dwindling tortoise populations crash, and FWS properly proposes to strengthen the HCP and/or ITP as a last-ditch effort, that proposal might be construed to constitute an “attempt” to “substantially modify” and therefore cause automatic nullification of the IA, thereby violating the IA as a term and condition of the issued ITP. This provision [8. Miscellaneous Provisions A. Nullification of Agreement] is so wide open that it may give any Party the ability to walk away from its HCP, ITP and IA duties if it dislikes something proposed by FWS or perhaps even third-parties such as environmental groups.	Refer to response to A.44-4.
A.44-12	If the IA is to be implemented in good faith, I believe that the Federal and state Parties should be obligated to use their "best efforts" to try to obtain the necessary funds. Politicians tend to fund "squeaky wheels". If these Parties are silent or apathetic about making funding requests, they are likely to receive inadequate funding. They should be obligated to ask for what they need.	Refer to response to A.44-4.

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A.44-13	<p>Provision: Notwithstanding anything contained in the IA to the contrary, the Parties hereto expressly agree and acknowledge that any remedy for a material breach of this IA by another Party is strictly limited to suspension of termination of this IA or, in the case of a breach which also qualifies as a breach by the County of the New ITP, the Service shall have such remedies against the County with respect to such New ITP as are available to the Service under applicable law and regulation.</p> <p>Response: This provision is improper and too limited. Except for losing ITP coverage for a breach, all of the Parties (save the county) would apparently be shielded from any FWS or DOJ enforcement action for illegal MDT take. A breach would presumably occur by a Party (including the approved municipalities and developers that receive certificates from the county) when MDT take occurred outside of the HCP/ITP "covered activities." In essence, if breaches are triggered under this provision, some illegal MDT take has likely already happened. Breaches are outside of the ITP's protection, and therefore we seriously question the need or justification for this provision. No IA provision should be allowed to weaken or undermine the explicit HCP and ITP provisions, nor potentially hinder any otherwise necessary and appropriate enforcement actions for illegal MDT take.</p>	Refer to response to A.44-4.
A.44-14	<p>This [Provision I. Force Majeure] looks like standard text. However, some of the terms are vague and should be clearly defined. For example, "epidemics" because of the current COVID 19 pandemic. This pandemic has properly caused the need for important safety precautions, but it has not prevented most government and business functions from continuing or resuming. "Sudden actions of the elements" is also impermissibly vague.</p>	Refer to response to A.44-4.
A.44-15	<p>This provision [M. No Admission] is illogical and should be deleted. This draft IA is about implementing a new ITP and HCP that are necessary to allow development on non-Federal lands to proceed in MDT habitat, where take is likely to occur. In addition, the County has had an ITP for nearly a quarter-century that likewise enabled such take. The Parties may not want to "admit" that any MDT take "has occurred or will occur" but such take has and likely will continue to occur. This provision defies reality.</p>	Refer to response to A.44-4.
A.44-16	<p>This provision [N. Compliance with Regulations] seems outside the proper scope of an IA because the HCP/ITP only cover MDT incidental take on non-Federal lands. Perhaps BLM and FWS representatives requested this provision as a reminder to the other Parties. If so, that would be acceptable.</p>	Refer to response to A.44-4.

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A.47-2	<p>The HCP provides for conservation management by Washington County, though much of the Zone 6 will be managed by the County pending full acquisition of it by BLM. BLM remains responsible for managing its lands within the existing Reserve, and for carrying out its role such as land acquisitions and exchanges. This leaves the Reserve staff subject to close coordination and cooperation with BLM, though subject to the BLM priorities in the area as well as federal appropriations. The HCP should explicitly spell out the BLM-County partnership which is essential for successful management. It must spell out a closer relationship and collaborative management with BLM, such that the Reserve staff could undertake and perform management tasks to facilitate and improve conservation management and reach the goals of the HCP.</p>	<p>The Amended HCP continues the successful partnership among the USFWS, County, BLM, UDNR, SITLA, municipalities, and other stakeholders, including the public, to implement meaningful conservation of the tortoise and other natural resources within the capabilities and limitations of each partner. The Amended HCP describes the ongoing coordination and cooperation to achieve the Biological Goals and Objectives of the plan. The USFWS acknowledged the success of the 1995 HCP in the 2016 revision of the HCP Handbook (USFWS and NMFS 2016), particularly with respect to the establishment of the Reserve and the effective partnerships fostered among the partners.</p> <p>Refer also to response to A.51-91.</p>
A.51-92	<p>HCP 67 ii Exec Sum</p> <p>Comment: The ITP having authorized the development of 22,822 acres since 1996 now envisions the further authorized loss of 66,301 acres throughout Washington County. The conservation balance thus far has been achieved by protecting the Red Cliffs Desert Reserve, intact (as lauded on page 2 of the Amended HCP). Now, the County plans for three times more impact than has already been realized, the development of a freeway through its primary Reserve, and the establishment of a 6,760 acre satellite reserve, about half of which is on SITLA lands that are outside the jurisdictional control of the County and some of which are likely impaired given their proximity to adjacent urban development in western St George. Project development and habitat loss are being guaranteed on the promise that remaining, unfragmented portions of the soon-to-be impaired Reserve will be protected going forward. Tortoise populations have steadily declined within the Reserve since 1996, and likely throughout the County where take is authorized. As stated elsewhere, the Council believes that the entire Red Bluffs ACEC should be designated as a Reserve</p>	<p>The USFWS’s HCP Handbook explicitly states, “the Services cannot issue permits based on alternative versions of the HCP that the applicant did not propose” (USFWS and NMFS 2016 at 16-4). Accordingly, because the County (the applicant) did not propose an alternate version of the HCP, or specifically, the conservation program, it would be inappropriate for the USFWS to unilaterally propose and analyze the impacts of an alternative version of the HCP/ITP.</p> <p>The USFWS has determined the use of surrogate habitat metric is consistent with Federal regulations. The County applied the updated surrogate habitat metric to the approximate conditions at the time of the 1995 HCP to provide a</p>

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	<p>as a means to alleviate the imbalance that is already documented, and that this be done while denying the Northern Corridor.</p> <p>The Applicant is requesting take of more than 66,000 acres of occupied and potential tortoise habitat. To mitigate for this loss, the Applicant needs to identify other areas of tortoise habitat that, when acquired and enhanced, would contribute to the long-term management of the tortoise, in the Reserve and UVRU. Partial mitigation to offset the impacts of taking 66,000+ acres would be for the Applicant to implement effective conservation actions within critical habitat and in the Reserve to improve its ability to grow and sustain a viable tortoise population for future generations. Such conservation actions would include, but are not limited to, substantial improvements to habitat quality, especially the quality of nutritious forage (e.g., removal of non-native invasive plant species, establishment of native annual plant species), habitat restoration for burned areas in the Reserve, implementation of effective fire prevention and fire suppression plans that focus on the needs of the tortoise/tortoise habitat, implementation of effective local community and visitor education and law enforcement plans, implementation of tortoise exclusion fencing and human access exclusion fencing as identified from required compliance and effectiveness monitoring, reducing direct and indirect mortality from humans (e.g., crushing by vehicles, vandalism, collection, loss of tortoises from the effects of roads), closing unnecessary roads and restoring habitat, reducing predation from ravens, feral and roaming dogs, etc. As written, the 2020 HCP fails to provide for these actions and should be modified to do so.</p>	<p>comparison of incidental take used relative to authorized take during the original ITP term.</p> <p>The activities covered under an HCP are at the discretion of the applicant. Similarly, covered activities must be non-Federal and carried out by the applicant or a party under the direct control of the applicant. In this case, the Northern Corridor is not a project of the County or of a party under its control. Rather, the Northern Corridor is an action of UDOT and also requires multiple Federal actions, including the approval of a right-of-way by the BLM. Consultation under Section 7 of the ESA, therefore, must occur with respect to the Northern Corridor.</p> <p>In Washington County’s Amended HCP, the Northern Corridor and associated commitments proposed as part of that project are considered a changed circumstance with the potential to degrade the Reserve for its intended purpose of aiding the conservation of the Mojave desert tortoise. Pursuant to the changed circumstance incorporated in the Amended HCP, the County has made a binding commitment to take actions, to the maximum extent practicable, that would minimize and mitigate the impacts of take. While the Northern Corridor is not itself covered under the Amended HCP, the County has provided actions to augment the HCP conservation program in the event the Northern Corridor is approved. Pursuant to the BLM’s ESA section 7 consultation with the USFWS</p>

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		<p>concerning the BLM’s potential issuance of a ROW for the Northern Corridor, UDOT has also committed to conservation to avoid and minimize the adverse effects as part of the project. Decisions regarding approval of the Amended HCP and issuance of a new ITP are separate actions from decisions about the Northern Corridor. If the Northern Corridor is not approved, the USFWS must still determine whether the Amended HCP, without the changed circumstance, meets the criteria for ITP issuance. In that circumstance, the USFWS would evaluate the conservation program of the Amended HCP to determine if the conservation program, to the maximum extent practicable, minimizes and mitigates the impacts of take from covered activities.</p> <p>The BLM’s purpose and need for the amendments to the Red Cliffs NCA RMP or the SGFO RMP analyzed in this EIS are related to BLM’s review of UDOT’s ROW application and commitments as a partner in the implementation of the Washington County HCP. Refer also to response to A.51-91.</p>
A.51-93	<p>HCP 68 ii Exec Sum Text: “However, this Amended HCP does not expressly prohibit uses of the Reserve that are not Covered Activities.” Comment: This statement is referring to the Northern Corridor. The 1995 HCP makes it clear that new roads are not acceptable as it closed existing roads in the Reserve. P. 21 of the 1995 HCP says, “The proposed reserve is consistent with that recommended in the DTRP [Desert Tortoise Recovery Plan], and its boundaries have</p>	<p>Washington County’s Amended HCP is an amendment to the 1995 HCP, and as such, can include revised or new projects and commitments. The Amended HCP includes the Northern Corridor as a changed circumstance, not a covered activity. The effects of the Northern Corridor to Mojave desert tortoise and its habitat, including habitat fragmentation, would</p>

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	<p>been drawn with generally accepted reserve design criteria (see Chapter 7 for an in depth analysis of the reserve boundaries against these criteria).” Page 123 of the 1995 HCP says, “(7) Blocks of habitat that are roadless or otherwise inaccessible to humans are better than roaded and accessible habitat blocks. Unfortunately, there are few roadless areas of any size within desert tortoise habitat in the UVRU. To the maximum extent practicable, interior roads will be closed within the reserve boundaries. Paved highways such as Interstate 15, Highway 18, Snow Canyon Road, and Skyline Drive will remain open to vehicular traffic. Desert tortoise mortality along Highway 18, Interstate 15, and Skyline Drive will be minimized through fencing. The largest block of habitat which will remain roadless is within Zone 3 of the reserve which is between the Cottonwood Road, Interstate 15, the Dixie National Forest, and Red Cliffs, an area of approximately 28,147 acres. The next largest block is also within Zone 3, and it is between Highway 18 and the Cottonwood Road north of Skyline Drive, an area of approximately 10,155 acres.”</p> <p>Page 21 of the 1995 HCP further supports no new roads with the following information - “Zone 3 will be managed by the Dixie Resource Area of the BLM for the preservation and enhancement of the Mojave desert tortoise.” “Grazing permits will be acquired and retired on a willing buyer/willing seller basis.” “Hiking, equestrian, and camping should be restricted to designated areas.” “BLM should ...apply for mineral withdrawal for Federal minerals.” “Vehicles should be restricted to designated roads.” “Continuation of present activities associated with the Moroni Feeds Turkey Farm should be permitted but new actions, which the reserve manager reasonably believes may harm the desert tortoise, should not be allowed.” “No organized or competitive sporting or recreational events should be allowed.” “From Skyline Drive, no general public access will be permitted into the reserve, except on designated trails.”</p> <p>If these activities are prohibited based on 1995 standards because of their impacts to the tortoise/tortoise habitat, why would a new freeway with major traffic be considered an acceptable activity in a wildlife reserve under current 2020 standards?</p>	<p>be evaluated through ESA Section 7 consultation between the BLM and USFWS. The Amended HCP describes commitments to conservation measures that reduce impacts of the Northern Corridor to Mojave desert tortoise and their habitat. The Amended HCP also commits County resources during the new ITP term towards achieving the Community and Biological Goals and Objectives. The USFWS will review the Amended HCP to determine whether issuance criteria are met. If the HCP submitted by the applicant meets issuance criteria and is statutorily complete, the USFWS shall issue the permit. Refer also to response to A.51-91.</p>

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A.51-94	<p>HCP 69 ii Exec Sum Text: “Therefore, the implementation of this Amended HCP remains consistent with the analyses in the 1995 Environmental Impact Statement and 1996 Biological Opinion.” Comment: The Council contends that the declines in tortoise populations throughout the listed range of the Mojave Population of the Agassiz’s Desert Tortoise since 1995 (see Attachment D) constitute both an Unforeseen Circumstance and Changed Circumstance that are not being adequately addressed in the amended HCP; that the 1995 EIS does not adequately address the relationship between authorized impacts and a concomitant level of conservation because of these declines and failure of the HCAC to curtail fire, poaching, predation, and other deleterious impacts within the Reserve; and that “...substantial new analysis of the impacts of the reauthorized take...” IS warranted, contrary to the assertion given in this section.</p>	<p>The USFWS will consider effects of the Northern Corridor and other stressors to Mojave desert tortoise, including fire, poaching, and predation through the NEPA and ESA Section 7 consultation process. Note that the BLM and USFWS did not carry forward the analysis from the 1995 HCP EIS and Biological Opinion in the current EIS. The USFWS is considering the Amended HCP, with certain revisions since its draft publication, including the changed circumstance of the Northern Corridor, to ensure all of the criteria for issuance of the requested ITP are met. The USFWS will consider whether the impacts of the requested take for the new ITP term, including the changed circumstance of the Northern Corridor, meet issuance criteria. Refer also to response to A.51-91.</p>

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A.51-95	<p>HCP70 ii Exec Sum Text: “Up to 200 acres of this take could be applied to Covered Activities inside the Reserve, subject to compliance with other conservation measures specified in this Amended HCP.” Comment: We have a few issues with the above statement. First, it is inconsistent with what the 2020 HCP says on page i, which is “A Renewed/Amended ITP is needed to extend the County’s access to previously authorized, but unrealized, incidental take of the MDT for an extended term of 25 years. Amendments to the 1995 HCP are needed to incorporate developments in the best available science pertaining to the MDT, comply with current USFWS regulations pertaining to ITPs, incorporate current policy regarding amended HCPs (as applicable), and clarify the language to more accurately reflect the intent of the 1995 HCP. Excluding 200 acres to build use and maintain a highway is not an amendment that incorporates developments in the best available science pertaining to the MDT, comply with current USFWS regulations pertaining to ITPs, incorporate current policy regarding amended HCPs (as applicable), and clarify the language to more accurately reflect the intent of the 1995 HCP.” Language throughout the HCP must be consistent and be clear, unlike the example given above. Second, the Northern Corridor will impact more than 200 acres when direct and indirect impacts of the construction, use, and maintenance of the freeway are calculated. The impacts of the road effect zone are well documented for wildlife species with the behavioral characteristics of the desert tortoise. When added to the impacts of habitat and population fragmentation and eventual loss of tortoises south of the Northern Corridor because of small isolated population size and stochastic events, the area impacted by the activities of the Northern Corridor grows larger. We provided this information in our scoping comments, which do not appear to be addressed in the documents. Third, this new exclusion appears to be inconsistent with the legislation authorizing the creation of the Red Cliffs NCA. [see Public Law 111-11, Section 1974(e)(1)(a)]. Please explain how removing the 200 acres from conservation complies with this legislation.</p>	<p>The Amended HCP clarifies the 200-acre allowance for direct habitat loss inside the Reserve only applies to habitat loss associated with Covered Activities. Per Section 2 of the Amended HCP, the Northern Corridor is not a Covered Activity of the Amended HCP. The Final EIS analyzes impacts associated with the Northern Corridor. Refer also to response to NCA-01.</p>

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A.51-96	<p>HCP 71 iii Exec Sum</p> <p>Text: “This Amended HCP adopts, with clarifications, the same set of Covered Activities as the 1995 HCP.” Comment: Given the claim by this 2020 Amended HCP that the 1995 HCP did not expressly prohibit new roads, it seems prudent that the 2020 HCP should list Covered Activities allowed in the Reserve, and clearly state that “all other activities that do not contribute to the survival and recovery of the tortoise are prohibited in the Reserve.” Please revise the HCP to make this language clear.</p>	<p>Covered activities in an HCP are determined by the applicant. Similarly, covered activities must be non-Federal and carried out by the applicant or a party under the direct control of the applicant. Section 2.2 of the Amended HCP includes a specific list of covered activities that can occur in the Reserve.</p>
A.51-97	<p>HCP 72 iii Exec Sum</p> <p>Text: “Therefore, the implementation of this Amended HCP remains consistent with the analyses in the 1995 Environmental Impact Statement and 1996 Biological Opinion.” “[S]ubstantial new analysis of the impacts of the reauthorized take is not warranted—the USFWS has already deemed the authorized take to be consistent with the issuance criteria for an ITP.”</p> <p>Comment: The latter part of this statement is not true if applied to the current request for an amended ITP. It is not relevant for an ITP issued 24 years ago. The status of the tortoise, as for any species, changes over time. Because an entity determined in the past that specific actions could be implemented that would not jeopardize the continued existence of a listed species, adversely modify or destroy critical habitat, and would contribute to the conservation of listed species does not mean those specific actions would produce the same determination. Unfortunately, the status of the tortoise in this recovery unit, status of the tortoise rangewide, and the quality of available habitat including critical habitat are not the same as in 1995 and 1996 as they are now. Consequently, the analysis in the DEIS and BO should reflect these changes. The red, highlighted statement above should be removed from the HCP as it is not accurate.</p>	<p>Refer to responses to A.51-91 and A.05-2.</p>

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A.51-98	<p>HCP 73 v Exec Sum</p> <p>Text: “The Amended HCP uses a Habitat Conservation Advisory Committee (HCAC) and a Technical Committee (TC) appointed by the Washington County Commission ...oversee and provide guidance on the implementation of the Washington County HCP. These committees provide adaptive management recommendations to the County, through the HCP Administrator, for addressing new information and uncertainty regarding the effectiveness of the conservation program.”</p> <p>Comment: The analyses and discussions given in the DEIS and Amended HCP should be based in science. This section did not say what happens to the recommendations or the process for implementing them. Please add this information. Otherwise from the information provided, it appears there is a lot of discussion but not much implementation of action to manage for the tortoise. assurances in the HCP that they will immediately modify the conservation actions when the effectiveness monitoring indicates an action is not producing the desired results. In its Five-Point Policy (USFWS and NMFS 1998), USFWS requires the HCP include science-based effectiveness monitoring and adaptive management to determine if all aspects of the conservation program are functioning. We did not see the monitoring/adaptive management for fencing, law enforcement, community education and outreach, recreation management, tortoise translocation, and fire habitat management in the 2020 HCP. In addition, this monitoring/adaptive management would be required for the compensation land acquired to offset the 66,301 acres of occupied and potential desert tortoise habitat the Applicant is requesting to take. The Applicant should provide assurances in the HCP that they will immediately modify the conservation actions when the effectiveness monitoring indicates an action is not producing the desired results. The Applicant should provide assurances in the HCP that they will take immediate corrective action if the results from compliance monitoring indicate compliance is not occurring. We stress immediate action because the Permittee has a history of not taking action to deal with tortoise predation (see St. George News October 25, 2019 “Efforts to control desert tortoise predation by ravens moving too slowly for some HCP committee members”).</p> <p>This Policy also requires compliance monitoring for all aspects of the Covered Activities. The HCP should include the methods and requirements for entities that will be implementing Covered Activities, how their actions will be documented, and how the locations and extent of habitat impacted will be mapped for tracking take of habitat. In addition, we have concerns about how the impacts of the taking of tortoise habitat will be determined as they frequently extend beyond the footprint of the Covered Activity.</p>	<p>The Amended HCP describes the track record of County and partner conservation accomplishments, including research, monitoring, and adaptive management, providing assurance of continued success. This track record shows the success of the HCAC and TC processes that are carried forward from the 1995 HCP to the Amended HCP. Section 6.3.3 of the Amended HCP further describes the monitoring and adaptive management commitments.</p> <p>The USFWS will conduct an intra-service ESA section 7 consultation process and review the HCP to determine whether issuance criteria are met. If the HCP submitted by the applicant meets issuance criteria and is statutorily complete, the USFWS shall issue the permit.</p> <p>Refer also to response to A.51-93.</p>

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A.51-99	<p>HCP 74 v Exec Sum</p> <p>Text: “The community goals and objectives address the County’s underlying purpose and need for continuing the implementation of the conservation program for a Renewed/Amended ITP Term.”</p> <p>Comment: This statement is incorrect. The County would continue to implement the conservation program even without an amended ITP Term. The conservation program does not disappear when the permit expires. As stated in a previous comment, the development is permanent, so the conservation program must also be permanent. A 25-year conservation program provides little to no benefit to a long-lived species. This time encompasses just one generation for the tortoise. The tenets of conservation biology and population ecology show that multiple generations must benefit so the trend is positive. We refer the decisionmaker to USFWS (2011) that says, “Recovery Objective 3 (Habitat). Ensure that habitat within each recovery unit is protected and managed to support long-term viability of desert tortoise populations.” If “[t]he biological goals and objectives of this Amended HCP are consistent with the recommendations of the 2011 MDT Recovery Plan for the Upper Virgin River population of MDT, then implementation of conservation actions needs to continue until the rates of population change (<math>\lambda</math>) for desert tortoises are increasing (i.e., <math>\lambda &gt; 1</math>) over at least 25 years” and the “[d]istribution of desert tortoises throughout each tortoise conservation area is increasing over at least 25 years.” (USFWS 2011).</p>	<p>The USFWS will evaluate the conservation program and whether it meets HCP issuance criteria prior to issuance of an ITP.</p> <p>The USFWS’ purpose and need for action is described in Section 1.3 of the EIS.</p> <p>USFWS will take into consideration the longevity of the Amended HCP conservation program and tenets of conservation and population biology in the agency’s review of the HCP and whether it meets issuance criteria. Refer also to responses to A.51-245 and A.51-101.</p>
A.51-100	<p>HCP 75 v Exec Sum</p> <p>Text: “The Reserve has been established and the majority of Reserve land acquisitions have been completed.... Regardless of acquisition status, the collaborative effort of the County and the HCP Partners has provided for the establishment, management and monitoring of the Reserve since approval of the 1995 HCP”</p> <p>Comment: Given the intent of the regulatory agencies to reverse previous opposition to the Northern Corridor within the Reserve, we object to the above statement as being intentionally misleading and not reflective of current plans under the umbrella of “Changed Circumstances.” Whereas these statements may be true prior to the 2020 reissuance of the ITP, in light of current plans, they will no longer apply after reissuance.</p>	<p>Refer to response to A.51-94.</p>

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A.51-101	<p>HCP 76 v and 66-95 Exec Sum Text: "...the County and the HCP Partners have made substantial progress toward fully implementing the goals and objectives of the 1995 HCP." According to the 2020 HCP (p.66), "The overarching intent of the Washington County HCP is to create a conservation program, compatible with the County's community goals and objectives, for conserving the Upper Virgin River population of MDT in its native habitat in perpetuity [emphasis added]. The 1995 HCP identified several biological goals and objectives for the conservation program, restated with some modifications here as follows: "To the maximum extent practicable, conserve the Upper Virgin River population of MDT within the Plan Area by</p> <ul style="list-style-type: none"> <li>• meeting substantively the recovery recommendations for establishing the Upper Virgin River DWMA (i.e., the Reserve) contemplated in the 1994 and 2011 MDT Recovery Plans;</li> <li>• placing most lands within the Reserve under BLM or UDNR ownership, subject to willing partnerships with non-federal landowners;</li> <li>• managing the acquired lands within the Reserve in a manner consistent with the conservation missions of the BLM and UDNR, with enforcement of associated land use restrictions;</li> <li>• removing land uses from the Reserve that are not Covered Activities and that impact the MDT, such as land development, grazing, off-road use, mining, and others;</li> <li>• incentivizing the siting of Covered Activities in areas that are not MDT habitat or that are poor-quality MDT habitat through land use planning, impact fees, and environmental education;</li> <li>• translocating healthy MDT individuals from areas affected by Covered Activities to the Reserve, thereby minimizing the impacts of the Covered Activities on the MDT and expanding the protected MDT population; and</li> <li>• monitoring MDT population trends and MDT threats in the Permit Area to support adaptive management actions."</li> </ul> <p>Comment: For the second bullet above, this objective is unclear. We interpret it as the Applicants wanting to divest themselves of the expense and responsibility of managing the Reserve. BLM ownership is not acceptable as they have a very poor record of management in other places in the southwest deserts. For the third bullet above, "managing the acquired lands within the Reserve in a manner consistent with the conservation missions of the BLM and UDNR" we</p>	<p>The ESA and associated regulations for Section 10 HCPs and ITP issuance states, "the USFWS shall issue an ITP where the applicant and its submitted HCP meet the criteria for issuance and the HCP is statutorily complete." The USFWS's HCP Handbook explicitly states, "the Services cannot issue permits based on alternative versions of the HCP that the applicant did not propose" (USFWS and NMFS 2016 at 16-4). Accordingly, because the County (the applicant) did not propose an alternate version of the HCP, or specifically, the conservation program, it would be inappropriate for the USFWS to unilaterally propose and analyze the impacts of an alternative version of the HCP/ITP. For the comment relating to the second bullet, much of the Reserve is now an NCA managed by BLM, in part, to conserve threatened and endangered species, including the Mojave desert tortoise. Under the ESA, BLM is required to implement conservation programs to recover imperiled species and their habitats and ensure BLM-authorized activities are carried out without contributing to further harm of the species or its habitat. For the comment relating to the third bullet, the Amended HCP includes a biological goal and objective to meet substantively the recovery recommendations for establishing the Upper Virgin River DWMA (i.e., the Reserve) contemplated in the 1994 and</p>

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	<p>disagree with this objective. It should be reworded to say the acquired lands in the Reserve will be managed in a manner consistent with the 1994 and 2011 Mojave Desert Tortoise Recovery Plans and to conserve other listed and rare species in the Reserve including plant species and their habitats. BLM’s management mandate is multiple use, not conservation. The mission of UDNR does not include plants (<a href="https://wildlife.utah.gov/strategic-plan.html">https://wildlife.utah.gov/strategic-plan.html</a>). In addition, it is limited to managing wildlife and does not specifically include managing habitat.</p> <p>For the fifth bullet, we disagree that incentivizing the location of Covered Activities in areas that are not MDT habitat or that are poor-quality MDT habitat should be limited to only land use planning, impact fees, and environmental education. This sentence should be reworded to allow for other means of providing incentives.</p> <p>For the sixth bullet, “translocating healthy MDT individuals from areas affected by Covered Activities to the Reserve,” this statement should be modified to say, “translocating healthy MDT individuals from areas affected by Covered Activities to agency-approved locations.”</p> <p>In this section, it appears the Applicants are measuring the success of the HCP on how many actions have been implemented (e.g., acres acquired) rather than whether these actions have resulted in improvements to the status of the MDT [e.g., improvements in demographic data (numbers, density, reduced sources of mortality) and in habitat quantity, quality, and connectivity]. The data on tortoise and tortoise habitats tell whether the actions are successful. If they are not, adaptive management was to be implemented to modify these actions. Given the demographic data that UDWR has collected on the tortoise in the Red Cliffs Reserve from 1999 to 2019, the data indicate the tortoise population has declined. We contend the HCP has not been accomplishing its goal with respect to the tortoise. We contend the HCP presents information that shows the HCAC has been following a checklist to complete actions rather than incorporating an analysis of the monitoring data and thereby using adaptive management to modify this list and implement actions that do contribute to conservation of the tortoise regarding demography and habitat. We argue that the 2020 HCP must be modified to address the declines in tortoise numbers and densities, recurring fires in the Reserve, and other impacts that were learned from monitoring and scientific research in the Plan Area. This would mean adding biological objectives, conservation actions, monitoring, adaptive management, and funding to cover these additional actions.</p>	<p>2011 Mojave desert tortoise Recovery Plans.</p> <p>Refer also to response to A.51-93.</p> <p>For the comments relating to the 5th and 6th bullets, refer to responses to A.51-93 and A.51-98. The Amended HCP includes monitoring and adaptive management programs and a process (i.e., HCAC and TC committee) that allows for the inclusion of new conservation measures, including different types of incentives.</p> <p>Mojave desert tortoise are long-lived species. Accurate population trends need to be understood in terms of generation length, recruitment, fecundity, and other life-history attributes. Population changes and trends over time are currently being evaluated to better understand causation for changes to populations. Mojave desert tortoise densities have been noted to decline. This decline is hypothesized as largely caused by fire impacts in certain years. Fires in the context of the Reserve can be considered to be episodic events. Although not naturally present in the Mojave Desert vegetation community, there is evidence that the invasion of non-native cheat grass in some parts of the Reserve has shortened the fire cycle and potentially increased the intensity. Data continue to be collected and analyzed to understand population dynamics and will require additional years of data and analysis to draw causal conclusions. More data over time and further analysis are needed to</p>

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		<p>understand the long-term population trend. Extreme and extensive fires can and have resulted in loss of individual Mojave desert tortoise and that is reflected in reports on mortality from fires as well as in annually collected data. Mojave desert tortoise densities in the Reserve remain relatively high compared to densities elsewhere in the range of Mojave desert tortoise, and Zone 3, where most fire impacts have occurred, continues to maintain a strong population. The statement by UDWR (UDWR 2018) that the population remains stable reflects that outside of the episodic impact of loss of individuals from any specific fire, the overall population in terms of its reproduction, generation length, recruitment, and other factors considered in population trends, are for the most part as yet unchanged or stable. This should not be construed as diminishing the impact of fires or the importance of responding to fire and those episodic losses. Declines attributed to fires are understood by partners working to conserve desert tortoise and are partly being addressed through proposed restoration as part of the Amended HCP. The HCP under the 1996 ITP incorporated changes in response to fire and other protocols as well as initiating a program for Mojave Desert vegetation community restoration and continues to do this. This effort will require time and commitments moving forward. These changes are being incorporated into</p>

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		<p>current adaptive management considerations for science and management and would continue to be part of the Amended HCP and the Reserve under a new ITP. These commitments to restoration by the County and HCP Partners are described in the Amended HCP and elsewhere in the proposed Northern Corridor project description and conservation measures. Furthermore, the HCP Partners have been successful at managing the Red Cliffs Desert Reserve for the benefit of desert tortoise for more than 20 years, including land acquisition, land management, and animal disposition, during which time the County has remained compliant with the 1996 ITP according to the 1995 HCP. The USFWS agrees the adaptive management program is intended to address changes in information and/or to incorporate new science, and USFWS and the County, as well as other HCP Partners, are committed to that process. Changes in population trends over time are difficult to document, and causal relationships can be complex. The HCP Partners are committed to the long-term management of the Reserve for the benefit of Mojave desert tortoise in perpetuity. To accomplish this, land management agencies have agreed, as HCP Partners, to be responsible for long-term management of lands acquired by them. This cooperative arrangement is the most enduring option and has been supported for more than 20 years.</p>

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A.51-102	<p>HCP 77 vi Exec Sum Text: “The establishment of the Reserve is the primary conservation measure of the 1995 HCP that offsets the impacts of incidental take caused by the Covered Activities” (emphasis added). Comment: As stated in numerous places and reiterated here, if the Reserve is the primary conservation measure, then the construction of the freeway through the Reserve compromises the entire conservation balance envisioned by the HCP. HCP Partners appear (now) to be advocating the freeway, which undermines the veracity of this statement.</p>	<p>The USFWS would consider the effects of the Northern Corridor to the Reserve through the ESA Section 7 consultation. The USFWS would also consider if the proposed conservation program in the HCP is sufficient, to the maximum extent practicable, to minimize and mitigate the impacts of take per ESA Section 10(a)(2)(B). If the HCP submitted by the applicant meets issuance criteria and is statutorily complete, the USFWS shall issue the permit. Refer also to response to A.51-93.</p>
A.51-103	<p>HCP 78 vi Exec Sum Text: “This Amended HCP clarifies the intent of the 1995 HCP that the respective landowners or land management agencies have the responsibility for ensuring that the long-term management and use of Reserve lands is consistent with the goals and objectives and allowed uses of this Amended HCP.” Comment: This sentence is unclear. We are unsure whether it is directing land owners/manager to ensure that their land management plans are consistent with the goal and objectives of the HCP or that they are responsible for implementing and funding these goals and objectives. It should be the former. We request that this sentence be rewritten to say that the plans must be consistent with the HCP.</p>	<p>Refer to response to A.51-93.</p>

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A.51-104	<p>HCP 79 vi Exec Sum Text: “[T]he long-term management of the Reserve is supported by the Red Cliffs National Conservation Area (RCNCA) designation, the BLM RCNCA Record of Decision and Resource Management Plan, and UDNR’s MDT Management Plan for Snow Canyon State Park.” Comment: While this statement may be true now, these are management plans that can change at any time. They have no legal clout to require continued management of the Reserve. The BLM’s proposal to grant a ROW to construct the Northern Corridor is one example of no guaranteed protection for the Reserve despite its designation as an NCA. Consequently, the HCP should include a legal designation on the lands in the Reserve, a conservation easement in perpetuity should be placed on these lands. This is one of many lessons learned from implementing the HCP since 1996 that should be modified in the Amended HCP</p>	Refer to responses to A.51-245 and A.51-101.

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A.51-105	<p>HCP 80 vii 86-88 Exec Sum 6.3.2.1</p> <p>Text: “HCP Partners will, to the extent practicable, perform maintenance on Reserve fences within 60 days of notification of a maintenance issue.”</p> <p>Comment: Since the tortoise was listed in 1989, a 60-day notification has never been acceptable; repairs implemented as soon as possible should be the goal. Fence repair/replacement is likely an ongoing issue. The HCP partners should have equipment and supplies stored for fence repair/replacement and staff that can be assigned within a day to fix damage to desert tortoise exclusion fencing. This is one example of inadequate funding for implementation of the 2020 HCP.</p> <p>In addition, the Reserve Fencing section provides information on four types of fencing/barriers, total number of miles of fencing installed under the 1995 HCP, and a map of the land ownership of fencing. It does not provide a map delineating where each of the four types of fencing have been installed. Please add this information to an appropriate map in the HCP.</p> <p>The endowment fund for fence maintenance is an excellent idea and should be implemented.</p> <p>Given the recent accounts of tortoises killed by vehicle collisions in the Reserve, it would be helpful to provide data collected since 1996 on where vehicle collisions have occurred in the Reserve and what actions the HCAC took (adaptive management) to minimize these collisions. These data would indicate whether the current locations of fences are adequate or if additional fencing with shade structures need to be included as a conservation action with associated funding. The 2020 HCP should provide adequate funding for maintenance of all four types of fencing.</p>	Refer to response to A.51-93.

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A.51-106	<p>HCP 81 vii 86-87 Exec Sum</p> <p>Text: “Installation of new fencing within the Reserve or along the boundary of the Reserve is not currently contemplated by Washington County or the HCP Partners. If, through adaptive management, the installation of new fencing is deemed a priority for achieving the biological goals and objectives of this Amended HCP, the landowner or management entity will be responsible for providing for the materials and labor for the installation and long-term maintenance of the fencing.”</p> <p>Comment: First, new fencing to exclude tortoises should also include the construction of tortoise shade structures (see Balduini 2018). Second, we do not understand the delegating of responsibility to the landowner. If this is a minimization or mitigation measure under the Applicants’ incidental take of the MDT, it should be the responsibility of the Applicants. To pay for it and ensure it is implemented. If not, it appears that the purpose of the HCP is to tell others what to do and hope they do it. Please clarify this statement.</p>	Refer to response to A.51-93.
A.51-107	<p>HCP 82 vii 88-89 Exec Sum 6.3.2.2</p> <p>Text: “The BLM and UDWR will continue to be responsible for providing law enforcement within lands acquired for the Reserve. Law enforcement activities within the Reserve will focus on access and use regulations that implement the Red Cliffs Desert Reserve Public Use Plan, applicable BLM Resource Management Plans (RMPs), and all laws and regulations (local, state, and federal) that pertain to the protection and conservation of threatened, endangered, candidate, and Utah sensitive species and their habitats.”</p> <p>Comment: As previously mentioned, these management plans can be changed so they allow for activities that are not compatible with the HCP/ITP. In addition, there is a patchwork of land ownership within the Reserve that makes effective law enforcement difficult. Consequently, there should be one set of rules for the Reserve, regardless of land ownership, that promote its conservation of the tortoise and its habitat.</p>	<p>Management entities in the Reserve will sign an Implementation Agreement that provides additional assurances that the commitments set forth in the Amended HCP will continue. Additionally, the effectiveness of law enforcement is considered as one of the conservation measures in Section 6.3 of the Amended HCP.</p> <p>Refer also to response to A.51-93.</p>

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A.51-108	<p>HCP 83 vii 88-89 Exec Sum 6.3.2.2</p> <p>Text: “The County will continue to allocate existing resources from the Washington County Sheriff’s Office to provide law enforcement on unacquired lands within the Reserve boundary owned by SITLA or the Municipal Partners. The County estimates that an appropriate level of effort for this activity is approximately 20% of a full-time law enforcement position (i.e., approximately 416 hours per year).”</p> <p>Comment: In the 1995 HCP, two fulltime law enforcement officers were to be provided. Now existing staff from BLM, UDWR, and Sheriff’s Department provide LE with no information how much time they spend patrolling. We presume they receive no budgetary assistance from the HCP. If so, this is unacceptable. LE in BLM is woefully inadequate in a rural setting. The needs for LE adjacent to a growing city are even greater. This is another lesson learned from the past 24 years. The 1995 HCP presumed that two LE positions were sufficient. We assert that calculating time on the job is grossly inadequate. There are 8,760 hours in a year. A Full Time Equivalent working for 52 weeks at 8 hours a week works 2080 hours a year. Subtract vacation time (average of 160 hours), sick time/injuries/doctor appointments (160 hours), mandatory training (100 hours), holidays (80 hours) leaves 1,580 hours or 197 days or 39 of 52 weeks of the year. Two people working is 3,160 hours in a year. If these two positions were dedicated full time to Law Enforcement of the Reserve, after vacation, sick leave, holidays, and training, their combined time would be 36 percent of the time in a year to enforce/educate the public on appropriate activities in the Reserve. This calculation assumes no backup or overlapping of time on duty and assumes that two people can adequately enforce the area.</p> <p>We consider this another lesson learned from the implementation of the 1995 HCP that should be applied to the 2020 HCP and requires additional effort and therefore spending. The number and severity of unauthorized activities in the Reserve with respect to the take of tortoises and the math calculations above indicate that law enforcement needs to be increased substantially. In addition, the area they must cover and the human activities in the Reserve during the past 24 years with their resulting adverse impacts to tortoises and habitat resulting in declining numbers since the ITP was issued supports the need for a substantial increase in law enforcement presence on the Reserve.</p>	Refer to response to A.51-107.

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A.51-109	<p>HCP 84 viii 89-91 Exec Sum 6.3.2.3</p> <p>Text: “Planning and funding to construct a new Red Cliffs Visitor Center facility in Washington County, as contemplated in the 1995 HCP. This new facility may also serve as a holding facility for MDT awaiting translocation or adoption or may support a head-start program.”</p> <p>Comment: From this wording (i.e., “planning and funding to construct”) we presume that the Visitor Center Facility would not be built in the next 25 years. Please explain why the planning and funding of this facility would take so long. We contend planning should take a few years, and time/methods to acquire the funds is up to the HCAC and Washington County Commission. Funds could be acquired in as little as a few years; or better yet, some of the seven million dollars sitting in the bank should be used for immediate planning and construction. If it will not be implemented during the permit term, it should not be included in the HCP.</p>	<p>There is an existing Red Cliffs Desert Reserve Visitor Center, which will be used until the new facility is completed. Refer also to response to A.51-93.</p>

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A.51-110	<p>HCP 85 viii 89-91 Exec Sum</p> <p>Text: “The BLM and UDWR will also continue their respective programs for education and outreach regarding the MDT, other rare and sensitive resources, and the Mojave Desert ecosystem.” Comment: On the BLM’s Red Cliffs National Conservation Area webpage (<a href="https://www.blm.gov/programs/national-conservation-lands/utah/red-cliffs-nca">https://www.blm.gov/programs/national-conservation-lands/utah/red-cliffs-nca</a>), we found the following information on the tortoise: “Red Cliffs Desert Reserve, a multi-jurisdictional land base that has been collaboratively managed by BLM, the State of Utah, Washington County, and local municipalities since 1996 to protect populations and habitat of the threatened Mojave Desert tortoise.” We did find a link to the NCA’s congressional designation (P.L. 111-11), news stories (two on camping, one on land acquisition), links to the RMP, the Annual Manager Report for Fiscal Year 2016, a 1-page fact sheet that mentions the tortoise once, and link to the Doyle land acquisition on the eplanning website, dated August 30, 2016. We conclude that BLM has not updated it webpage since 2016; that, or nothing noteworthy regarding management of the NCA or land acquisition has occurred since 2016. In addition, there is a printable map, interactive map, brochure, and webpage on camping information. The brochure is titled “Red Cliffs Recreation Area” and (<a href="https://www.blm.gov/sites/blm.gov/files/documents/files/Red%20Cliffs%20Recreation%20Area_Brochure.pdf">https://www.blm.gov/sites/blm.gov/files/documents/files/Red%20Cliffs%20Recreation%20Area_Brochure.pdf</a>); there is no mention of the tortoise. It stresses recreation opportunities and camping/access fees in the NCA. Our point is the BLM does not appear to have a program, at least online, for education and outreach regarding the MDT at the Red Cliffs NCA. Consequently, we recommend that BLM add this requirement to its list of tasks in the Implementation Agreement with USFWS, UDWR, and HCAC review if the current wording of the HCP is to be correct. Because the Applicants cannot control what BLM or UDWR does, they should develop, fund, and implement a community education and outreach plan and not rely on federal or state agencies to do it for them. It should be reviewed by professionals who know who to communicate with and effectively inform the public of the conservation of the tortoise and how conserving it and its habitat provides an economic and environmental benefit to their community and indirectly contributes to improving their quality of life.</p>	<p>In addition to BLM and UDWR education and outreach commitments, Section 6.3 of the Amended HCP manages a Visitor Center, web presence (<a href="http://www.redcliffsreserve.com">www.redcliffsreserve.com</a>), and education programs.</p> <p>Refer also to response to A.51-93.</p> <p>Additionally, the BLM has provided education and outreach programs, coordinated through the HCAC, and support for ongoing land acquisition efforts since the implementation of the 1995 HCP. Some of the actions associated with this outreach are described in more detail in Section 3.6 <i>Endangered Species Act Section 6 Land Acquisition Grants</i> and Section 3.16 <i>Land and Water Conservation Fund Act Lands</i> of the Final EIS.</p>

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A.51-111	<p>HCP 86 ix 91-92 Exec Sum 6.3.2.4</p> <p>Text: “UDWR coordinates with the BLM and the County to release healthy MDT into the Reserve” and “The County’s, UDWR’s, and the BLM’s responsibility for the fate of translocated MDTs ceases once the MDTs are released into the Reserve or to another entity approved by the USFWS.”</p> <p>Comment: This language is confusing. The HCP should clearly state that translocated tortoises will only be released on lands secured for the management of the tortoise in perpetuity. This requires permanent conservations easement or other legal entitlements. We suggest that the HCP clarify what is meant by “the fate of the translocated tortoise.” The fate of the habitat into which it is translocated should never be in question as it will be if the Northern Corridor is facilitated by this planning process.</p>	<p>Mojave desert tortoise translocations are under the jurisdiction of UDWR. Through implementation of the 1995 HCP, translocations have focused on Zone 4, which is managed in perpetuity for the benefit of Mojave desert tortoise.</p> <p>Refer also to response to A.51-93.</p>
A.51-112	<p>HCP 87 ix 94 Exec Sum 6.3.2.7</p> <p>Text: “The County will also engage in the adaptive management process contemplated in the Public Use Plan.”</p> <p>Comment: We are not sure what this means. It appears to be saying that the Public Use Plan which “provides the primary guidance for managing public recreation on lands in the Reserve” does not have an adaptive management requirement. If so, it does not meet the requirements of an HCP. This language should be changed to require implementation of adaptive management in the development, implementation, and/or monitoring of any plan that affects the ecological resources of the Reserve. If this language was in the 1995 HCP, it did not meet the requirements for permit issuance. Please change this language to require adaptive management.</p>	<p>The Amended HCP includes monitoring and adaptive management programs and a process (i.e., HCAC and TC committee) that allows for the inclusion of new conservation measures or modification of existing measures.</p> <p>Refer also to response to A.51 93.</p>

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A.51-113	<p>HCP 88 x 94 Exec Sum 6.3.2.7</p> <p>Text: “The County launched a Trail Stewards Program to recruit, train, and support qualified volunteers in monitoring trail conditions, conducting minor trail maintenance, providing visitor information, and reporting instances of vandalism and noncompliance with Reserve regulations. The County intends to continue this program for the Renewed/Amended ITP Term.”</p> <p>Comment: In addition, if the Applicants are unable to operate this program with volunteers, there should be provisions in the HCP to fund this program. In addition, the wording sounds like this program is part of the law enforcement program (e.g., “reporting vandalism and noncompliance with Reserve regulations.”) We presume these reports are submitted to law enforcement and the HCAC to be corrected ASAP (e.g., adaptive management).</p>	<p>Vandalism and noncompliance can be reported by volunteers to law enforcement officials. The effectiveness of law enforcement is considered as one of the conservation measures in Section 6.3 of the Amended HCP. Refer also to response to A.51-93.</p>
A.51-114	<p>HCP 89 x 95 Exec Sum 6.3.2.8</p> <p>Text: “The County will establish an adaptive management fund to help support planning, monitoring, and responses for fire management within the Reserve boundary.”</p> <p>Comment: This is another example of unclear language. Please change this to say the County will fund actions to restore habitat in any area in the Reserve destroyed/damaged by fire regardless of the fire source. If the County and its partners had been managing the Reserve for tortoise, which also means managing the habitat, at the top of the list would have been management of nonnative plant species to substantially reduce their presence in the Reserve. Nonnative plant species fuel and carry fire in the Mojave Desert. Prior to their presence, large areas of fire or reoccurring fires were unknown in the Mojave Desert. Appendix D-2 of the HCP says, “In 2018, wildfire continues to be one of the greatest threats to tortoise habitat.” We agree. This threat should be managed for in the HCP’s biological goals, objectives, and conservation actions.</p>	<p>Section 6.3 of the Amended HCP describes fire management commitments. Refer also to response to A.51-93.</p>

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A.51-115	<p>HCP 90 x 95 Exec Sum 6.3.2.8</p> <p>Text: “Reserve Habitat and Fire Management Plan [was] adopted by the HCAC in October 2019 to help set priorities for Reserve management during the Annual Work Plan process and to provide guidance to the County, the HCP Partners, and fire crews for addressing wildfire-related threats within the Reserve.”</p> <p>Comment: We support this action. However, Appendix D of the 2020 HCP says, “destructive wildfires...burned ~25% of the RCDR in 2005.” We do not understand why the HCAC took 23 years from issuance of the 1996 ITP and 14 years from the disastrous 2005 wildfires to develop this plan. This is another example of the HCAC not implementing adaptive management when a substantive threat was known, as there were fires earlier in the ITP term that had adverse impacts on the tortoise and tortoise habitat in the Reserve. For example, Appendix D of the HCP says, “In 2018, wildfire continues to be one of the greatest threats to tortoise habitat.” So, the threat has been known but the response has been lacking.</p>	<p>The Final EIS provides information on the most recent fires and conservation commitments by State and Federal agencies to restore habitats in the Reserve.</p> <p>Refer also to response to A.51-93.</p>
A.51-116	<p>HCP 91 x 96-98 Exec Sum 6.3.3</p> <p>Text: “This committee process established by the 1995 HCP and coordinated by the County for the original ITP Term has proven highly successful at identifying and solving issues regarding the HCP’s conservation program.”</p> <p>Comment: We assert that the committee process has not been successful as the number and density of tortoises and acres of high quality habitat have declined since the ITP was issued in 1996 (please see Attachment B following these tables). We conclude that the adaptive management process is not working. It needs to integrate science (e.g., monitoring data about tortoise demographics and tortoise habitat quality, configuration, and quantity) to determine if the conservation actions are achieving the biological goals and objectives.</p>	<p>For issues related to partner cooperation, refer to response to A.47-2. For issues related to adaptive management, refer to response to A.51-98.</p>

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A.51-117	<p>HCP 92 x Exec Sum Text: “This committee process established by the 1995 HCP and coordinated by the County for the original ITP Term has proven highly successful at identifying and solving issues regarding the HCP’s conservation program” (emphasis added). Comment: We feel that this statement is disingenuous in light of the active intent of the “committee process” to accommodate the Northern Corridor. It is also our understanding that ubiquitous wildfires (page 3-152 in Volume 2), persisting raven predation on tortoises (page 3-40 in Volume 2), proliferation of weed species (Map 3.2-2a in Appendix B), documented poaching of tortoises (referred to on page 3-36 in Volume 2 but incidences not documented in the DEIS), the injury and death of 146 tortoises crushed on existing roads inside the Reserve (page 3-36 in Volume 2), and now active planning for the Northern Corridor are evidence that conservation is considerably less than “highly successful.” All of these impacts (many of which are not stochastic as stated on page x) have resulted in persisting tortoise declines, which is evidence that the HCP is not functioning as intended, and indeed, needs to be amended WITHOUT accommodating the Northern Corridor.</p>	<p>Refer to responses to A.51-93 and A.51-92.</p>

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A.51-118	<p>HCP 93 x Exec Sum</p> <p>Comment: The following statement in the Executive Summary on page x, “...the population of MDT within the Reserve appears to be relatively stable and robust” is totally unsupported by the data. Page 3-48 of Volume 2 of the DEIS states: “Within the Reserve, UDWR surveys between 1999 (3,404 Mojave desert tortoises) and 2020 (2,011 Mojave desert tortoises) show an overall decline of 41 percent (UDWR 2020).” Attachment B following these tables clearly shows consistent, persisting declines in tortoise numbers throughout the Plan Area. Page 3-55 of Volume 2 indicates that in just two years density estimates have fallen from 17.2 tortoises/km2 in 2017 down to 12.3 tortoises/km2 in 2019. Here, the Amended HCP indicates that as of 2017, tortoise densities were at 19.6 tortoises/km2, and that they had been as high as 29.6 tortoises/km2 prior to 2005 fires. In light of these and other data, how can the HCP claim “stable and robust” populations relative to 1995 estimates? We find the one-sidedness of the Executive Summary to the Amended HCP that presents the “success” of previous implementation to be misleading and presumptuous, and in the case of tortoise densities and trends, simply wrong. We find the HCP to be biased towards lauding successes without focusing on persisting problems that are happening even in the absence of the planned-for Northern Corridor.</p>	Refer to response to A.51-93.

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A.51-119	<p>HCP 94 x Exec Sum NA NA</p> <p>Text: “Therefore, monitoring indicates that the conservation program of the Washington County HCP is effective, and ongoing funding by the County is no longer necessary to assess the basic efficacy of the conservation program” (emphasis added).</p> <p>Comment: Given previous observations, we are concerned with the accuracy of the above statement and the apparent intent to discontinue the County’s fiscal responsibilities to monitor ongoing efficacy of the HCP. We then read in the bullets that the County may, at its discretion, volunteer to provide monitoring here and there but it will be the responsibility of BLM and UNDR to provide funding and implement monitoring. As the entity seeking take authorization and responsible for implementing requisite HCP commitments, it appears that the permittee (Washington County) is claiming success of the HCP, so far, and relinquishing its responsibilities going forward. Is this consistent with the Implementing Regulations of Section 10 of FESA?</p>	<p>As described in Table 1 of the Amended HCP, the BLM and UDNR (through Snow Canyon State Park) have primary responsibility for the long-term management of lands within the Reserve because those lands are owned and managed by BLM and UDNR for Mojave desert tortoise. Refer to response to A.51-93.</p>
A.51-120	<p>HCP 95 xxvii Glossary</p> <p>Text: “[HCAC] Oversees the administration of the Washington County HCP and advises the Washington County Commission on the interpretation of the HCP document.”</p> <p>Comment: This interpretation of the HCP should be a minor component of the HCAC’s duties if the HCP is written in clear language. We find this lack of clarity to be a major flaw in the revised 2020 HCP; specifically, its lack of clarity in describing biological objectives, conservation actions, monitoring, adaptive management, and funding render it deficient in numerous ways.</p>	<p>Refer to responses to A.47-2 and A.51-93.</p>

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A.51-121	<p>HCP 96 2 1.2</p> <p>Text: “The central conservation measure of the 1995 HCP was the creation of the 61,022-acre Reserve. The Reserve design was consistent with the criteria for the Upper Virgin River Desert Wildlife Management Area (DWMA) envisioned by the 1994 MDT Recovery Plan (USFWS 1994a:62–63; see discussion in Chapter 7.1.2 of the 1995 HCP).”</p> <p>Comment: Although it was prudent that this was a consideration in 1995, it is now imprudent that development of the Northern Corridor now compromises reserve design, which is no longer consistent with the 1994 Recovery Plan (USFWS 1994), which states: “Blocks of habitat that are roadless or otherwise inaccessible to humans are better than blocks containing roads and habitat blocks easily accessible to humans.” Not only are BLM, USFWS, the County, and their consultants now facilitating development of the Northern Corridor, they are taking the opportunity to construct adjacent trails thereby increasing the accessibility of the primary Reserve to humans.</p>	<p>Between the Draft and Final EIS, UDOT submitted a revised POD that clarified that the hike and bike path proposed adjacent to the Northern Corridor would not connect to existing reserve trails, and therefore would not alter the accessibility of these areas of the Reserve to humans.</p> <p>Refer also to responses to A.47-2, A.51-92, and A.51-93.</p>
A.51-122	<p>HCP 97 4 1.2</p> <p>Text: “The County and the HCP Partners adopted a conservation program designed to promote conservation and recovery [emphasis added] of the MDT (ITP No. TE036719:2) and meet substantially the recovery goals for the MDT in the UVRU (1995 HCP:9, 120).”</p> <p>Comment: We contend that the County and HCP Partners have not achieved substantial progress toward promoting the conservation and recovery of the MDT in the UVRU or rangewide. This position is supported by the most recent data on tortoise demography and comparing it with data from before the ITP was issued. Please see McLuckie et al. 2018, which is summarized in Attachment B following these tables; Attachment D to these comments - Status of the Mojave Desert Tortoise (<i>Gopherus agassizii</i>) from USFWS 2015; and Allison and McLuckie 2018. Our conclusion is also supported by the acreage of tortoise habitat damaged/destroyed by fire in the Reserve during the permit term of the 1996 ITP.</p>	<p>The Final EIS provides information on the most recent fires and conservation commitments by State and Federal agencies to restore habitats in the Reserve.</p> <p>Refer also to responses to A.51-93 and A.51-94.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.51-123	<p>HCP 98 5 1.3</p> <p>Text: “Namely, the Original ITP was identified as a renewable permit, the County applied for a renewal in advance of the original expiration date, the USFWS acknowledged receipt of the renewal application, and the County (as the permittee, in conjunction with those entities performing Covered Activities under its direct control) did not complete the Covered Activities before the expiration of the Original ITP, and the mitigation commitments prescribed under the 1995 HCP have kept pace with (actually exceeded) the takings.”</p> <p>Comment: However, the HCP Handbook says, “Revisions depend on how much of the originally Covered Activity has been completed, whether the mitigation has kept pace with impacts, or possibly if the status of covered species has changed. The effects of climate change, or other factors, may lead us to recommend new species or habitat surveys to identify potential HCP amendments.” We contend that the mitigation has not kept pace with the impacts as tortoise numbers and densities have declined, the status of the species has changed in the recovery unit and rangewide, and climate change has adversely affected habitat quality and quantity for the tortoise in the Plan area. In addition, the HCP fails to mention the numerous limitations that are listed in the USGS habitat model regarding its accuracy, including not considering habitat quality, land uses that degrade habitats and statements by scientists that in some of the identified habitat areas, tortoises did not occur (USFWS 2011).</p>	<p>The habitat model applied in the Amended HCP is the best available peer-reviewed science regarding the locations where conditions suitable for use by the tortoise are most likely to occur. The model was developed and published by scientists at the U.S. Geological Survey and intended to support conservation planning. The USFWS finds this peer-reviewed model to be the most appropriate for use in the Amended HCP and our analysis of the Amended HCP.</p> <p>Refer also to responses to A.05-2, A.51-91, and A.51-94.</p>

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A.51-124	<p>HCP 99 5 1.3</p> <p>Text: “Revisions depend on how much of the originally covered activity has been completed, whether the mitigation has kept pace with impacts, or possibly if the status of covered species has changed” (emphasis added).</p> <p>Comment: With regards to the above statement for reasons to renew and amend HCPs, since 2004, the declining populations of tortoises throughout the listed range excepting the Northeastern Mojave Recovery Unit (Allison and McLuckie 2018) directly relates to the emphasized wording above. Table 6 on page 33 of the Amended HCP shows a 24.3% reduction in tortoise numbers in the Upper Virgin River Recovery Unity. In California, declines in all recovery units within the state led to a 2019 petition by the Council, Defenders of Wildlife, and Desert Tortoise Preserve Committee to upgrade the State listing of <i>Gopherus agassizii</i> from threatened to endangered. Yet, counterintuitively, Utah field offices of the agencies are promoting development of the Northern Corridor through a local tortoise population that is already imperiled in the absence of the freeway while simultaneously providing for the elimination of tortoises from areas outside the Reserve in take areas throughout the County.</p>	<p>The USFWS will consider the status of the species through the NEPA process, intra-service Section 7 consultation, and Section 7 consultations with BLM on issuance of the ITP.</p> <p>Refer also to responses to A.51-93 and A.05-2.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.51-125	<p>HCP 100 5 1.3s</p> <p>Text: “The Amended HCP includes revisions appropriate to address changes to the status of the listed species in the Plan Area and current regulatory requirements for ITPs” (emphasis added).</p> <p>Comment: Given the documented decline of 41% of tortoises within the Reserve (page 3-48 of Volume 2), how is the above statement accurate? Should not such a significant reduction be remedied by enhanced protections in the Amended HCP, and prohibit the construction of a freeway through the Reserve?</p>	<p>Since the Draft EIS was published, the County, the BLM, and UDOT have added measures to the Amended HCP and EIS to address these concerns. Population changes and trends over time are currently being evaluated to better understand causation. Mojave desert tortoise densities have been noted to decline. This decline is hypothesized as largely caused by fire impacts in certain years. Data are still being analyzed and it will require additional years of data and further analysis to draw causal conclusions. Regardless, Mojave desert tortoise densities remain relatively high compared to densities elsewhere in the range of Mojave desert tortoise, and Zone 3 continues to be considered a strong population. Declines attributed to fires are part of the issue being addressed through proposed restoration as part of the Amended HCP.</p> <p>Refer also to response to A.51-93.</p>
A.51-126	<p>HCP 101 6 1.3</p> <p>Comment: How can the Reserve be the “...central conservation measure of the 1995 HCP” (page 2) and the Amended HCP, which will accommodate the Northern Corridor under the guise of a Changed Circumstance, still claim the “...basic framework of the 1995 HCP has been preserved?” (page 6). Herein, we assert that the basic intended function of the Reserve is lost by constructing a freeway through its most dense tortoise concentrations. We also ask that the agencies address the perception that there is a conflict of interest in having Washington County serve both as a proponent of the Northern Corridor and managing partner in amending the HCP.</p>	<p>The USFWS will consider the effects of the Northern Corridor to the Reserve and evaluate if the highway would result in jeopardy to the Mojave desert tortoise through intra-service Section 7 consultation and Section 7 consultations with BLM.</p> <p>Refer also to response to A.05-2.</p> <p>The USFWS will determine if the proposed conservation program is sufficient to meet ITP issuance criteria. For issues related to Northern Corridor as a Covered Activity, refer to response to A.51-96.</p>

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A.51-127	<p>HCP 102 9 1.5</p> <p>Comment: The fourth paragraph on page 9 refers to Section 10 of the Endangered Species Act but mixes the Act’s requirements with the Code of Federal regulations requirement. Whereas, Section 10 allows the Secretary of the Interior to issue an incidental take permit and to receive other such assurances, the CFRs require the USFWS to follow certain procedures to issue an ITP and these are mentioned in paragraph 5 of the HCP. Please correct this misinformation in the Amended HCP.</p>	<p>The citations to statute and regulation referenced in the comment are correct.</p>
A.51-128	<p>HCP 103</p> <p>Comment: The HCP uses “Implementing Agreement” and “Implementation Agreement.” The use of more than one term for the same document is confusing. We request that the terms used in the HCP be consistent throughout the document.</p>	<p>This inconsistency has been corrected in the Amended HCP.</p>
A.51-129	<p>HCP 104 10 1.5</p> <p>Text: “The HCP Handbook also provides guidance regarding amendments and renewals for HCPs and ITPs (HCP Handbook:17-5).”</p> <p>Comment: Please change this to say HCP Handbook 17-4. Section 17.5 is “When Additional NEPA, Section 7, or NHPA Compliance Is Needed.”</p>	<p>The citation is referencing a page number in the HCP Handbook, not the section number.</p>
A.51-130	<p>HCP 105 12 2.1 2</p> <p>Comment: To provide clarity and avoid confusion, this table should state that these Covered Activities are located “outside the Reserve boundary.” This is in the narrative but not the table and is needed for clarity and consistency.</p>	<p>Section 2.1 of the Amended HCP describes the covered activities that may occur outside the Reserve. Refer also to response to A.51-93.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.51-131	<p>HCP 106 12 2.1</p> <p>Text: “For example, the Covered Activities may include future otherwise lawful land uses that occur on lands under federal ownership at the outset of the Renewed/Amended ITP Term but that have become non-federal by the time the otherwise lawful land use occurs, such as may occur through land exchanges associated with Reserve land acquisitions or other BLM land sales or dispositions.”</p> <p>Comment: This wording is confusing and is not an example. Does this mean if a permittee has grazing authorization on BLM land now and the land is transferred to the Reserve under non-federal ownership, the permittee continues to have the right to graze this land? If this is correct, this is unacceptable, and the grazing should not be allowed. Please clarify this language and provide an example. Any land placed in the Reserve should have a permanent conservation easement placed on it, as a minimum, so the land is managed for its intended purpose in the Reserve. If the loss of habitat is in perpetuity, the acquisition and management of habitat must be in perpetuity.</p>	<p>Section 2 and Section 5.1.3 of the Amended HCP clarify that grazing is not a covered activity inside the Reserve. This section expressly applies only to lands outside the Reserve. The County and USFWS developed this language to clarify that the HCP would apply to lands outside the Reserve that become non-Federal through the types of land transactions envisioned (e.g., land exchanges) to support the acquisition of the non-Federal lands within the Reserve.</p> <p>Refer also to response to A.51-93.</p>
A.51-132	<p>HCP 107 12 1.2 1</p> <p>Comment: According to the HCP Handbook (USFWS and NMFS 2016) “The permit area must be clearly delineated with a map and written description in the HCP and the permit. The written description may include township, range, and section information; plat map and parcel numbers; global positioning system (GPS) coordinates; legal descriptions; or whatever is necessary to ensure that there is no uncertainty as to where Covered Activities may occur, and take is authorized.” We were unable to find a legal description of the permit area or a map/figure that clearly delineates the permit area. While Figure 1 shows the County boundary for the Plan Area, the permit area is smaller. The western boundary of the permit area cannot be determined from the figure provided. Please add a map of the permit area that clearly shows which lands near the western border are in the permit area and which lands are outside.</p>	<p>Section 4.1 of the Amended HCP describes the permit area.</p> <p>Refer also to response to A.51-93.</p>

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A.51-133	<p>HCP 108 12-13 2.2 2</p> <p>Comment: There is no table listing Covered Activities inside the Reserve. Please add this table so it corresponds to the Table 2 of Covered Activities outside the Reserve, clearly label the title of the table as “Covered Activities inside the Reserve,” and include a list of non-covered activities inside the Reserve. This is needed for clarity and allows the comparison of activities inside and outside to Reserve to better determine the completeness and clarity of the tables.</p>	<p>Section 2.2 of the Amended HCP describes covered activities inside the Reserve. Refer also to response to A.51-93.</p>
A.51-134	<p>HCP 109 13-14 2.2</p> <p>Comment: All Covered Activities that are likely to occur inside the Reserve that will benefit the tortoise but may result in take should be included in this section. This information must be complete for the USFWS to analyze these impacts and to provide incidental take coverage. This would include types of activities for habitat management (e.g., reduction of invasive plant species – hand pulling, backpack herbicide spraying, etc.), fire prevention, and fire suppression methods, habitat restoration methods, trail maintenance methods, etc. and equipment that would be used. Failure to do so would result in amending the HCP and prolonging the authorization process for these activities to be implemented to help with conserving the MDT. Please ensure all Covered Activities inside the Reserve are described.</p>	<p>Section 2.2 of the Amended HCP describes covered activities inside the Reserve. Section 6.3 of the Amended HCP describes fire management approaches. Refer also to response to A.51-93.</p>
A.51-135	<p>HCP 110 13 2.2</p> <p>Text: “The County has direct control over these activities when performed directly by the County, through agreements with the HCP Partners and Municipal Partners, and through the issuance of permits or other legal mechanisms, as applicable.”</p> <p>Comment: Please add that when they are partially or completely funded by the County, the County has direct control over these activities.</p>	<p>Refer to response to A.51-93.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.51-136	<p>HCP 111 13 2.2</p> <p>Text: “Infrastructure facilities, as contemplated herein, include the temporary and permanent ROWs or workspaces and the physical structures associated with such facilities.”</p> <p>Comment: This paragraph should clarify if this applies to existing ROWs or anticipates that additional ROWs will be needed and granted. It should clarify that a road is authorized only for the use of the utility and not for public use.</p>	<p>Section 2.2 of the Amended HCP describes that Covered Activities inside the Reserve can include infrastructure facilities in new ROWs.</p> <p>Refer also to response to A.51-93.</p>
A.51-137	<p>HCP 112 14 2.2</p> <p>Text: “Zone-specific allowed uses: This Amended HCP clarifies that the following zone-specific allowed uses are Covered Activities when performed in accordance with the conservation measures specified in Chapter 6. Reserve Zones 4 and 5 do not have zone-specific allowed uses.</p> <ul style="list-style-type: none"> <li>o Reserve Zone 1: Low-density residential development limited to a maximum overall density of one unit per acre with minimized surface disturbance during development, retention of native vegetation, and restrictions on exotic plant materials.</li> <li>o Reserve Zone 2: Existing state and local government uses are Covered Activities, including, but not limited to, existing public recreational access and use of related facilities and various infrastructure facilities (e.g., detention basins, wells, utility access roads).</li> <li>o Reserve Zone 3: Existing state and local government uses are Covered Activities, including, but not limited to, the continued operation, use, and maintenance of facilities associated with the City of St. George law enforcement training range, the debris basin behind City Creek dam, Pioneer Park, and other various infrastructure facilities (e.g., detention basins, wells, utility access roads).”</li> </ul> <p>Comment: This paragraph is not clear. Does “maximum overall density of one unit per acre with minimized surface disturbance during development” mean a person can build a 10,000 square foot home, several outbuildings, and a paved driveway and patio occupying similar square footage? While we presume this is an extreme example, if it is permissible, then this would not be acceptable. The zoning requirements should be included in the HCP as they could be changed in the next 25 years. We recommend that the entire paved and/or graded surface should be less than 10 percent of a 1-acre parcel.</p> <p>We found no information on the types of businesses that may be conducted from a person’s residence in Zone 1. This information should be included in the HCP to</p>	<p>With respect to allowed development in Reserve Zone 1, this language was carried over by the County from the 1995 HCP.</p> <p>Refer also to response to A.51-93.</p>

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	determine if the activities associated with the business are acceptable for the biological goals and objectives of Zone 1.	
A.51-138	<p>HCP 113 14 2.2</p> <p>Text: “Some activities specifically allowed within the Reserve under the 1995 HCP are no longer relevant to this Amended HCP and have been removed from the list of Covered Activities.”</p> <p>Comment: We found no list. We found a narrative. Lists allow comparison of activities/issues between sections of the HCP (e.g. Covered Activities outside the reserve and Covered Activities within the Reserve) and facilitate determining their completeness and clarity.</p>	<p>Section 2.2 of the Amended HCP describes covered activities inside the Reserve.</p> <p>Refer also to response to A.51-93.</p>
A.51-139	<p>HCP 114 14 2.2</p> <p>Text: “For example, the 1995 HCP covered the continued operation of the Moroni Feeds Turkey Farm in Reserve Zone 3 (1995 HCP:32). However, the private lands associated with the former Moroni Feeds Turkey Farm in Reserve Zone 3 have been acquired for conservation purposes by UDWR, and the farming activity has been discontinued.”</p> <p>Comment: Because this is an amended HCP, it is crucial that all changes from the 1995 HCP to the 2020 HCP be clearly documented and described in the 2020 HCP in a table. Providing examples is helpful to explain a concept but not for providing clarity of information on all changes to Covered Activities inside the Reserve that no longer apply and why. Please add a table of Covered Activities inside the Reserve that no longer are applicable and why.</p>	<p>Section 2.2 of the Amended HCP describes covered activities inside the Reserve.</p> <p>Refer also to response to A.51-93.</p>

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A.51-140	<p>HCP 115 14 2.2</p> <p>Text: “Neither the 1995 HCP nor this Amended HCP expressly prohibit uses of the Reserve that are not Covered Activities.”</p> <p>Comment: Washington County is using the argument that because the 1995 HCP did not explicitly prohibit roads, new roads can be constructed and used in the Reserve and is excluding acreage from the Reserve boundary or a major new road in the Amended HCP. This is unacceptable. Providing information on activities that are allowed and not allowed are equally important and should be listed and described in the Amended HCP. Regarding the example provided, while there may be lands inside the Reserve boundary that have not become part of the Reserve (e.g., private inholding lands, etc.), this does not prevent the Amended HCP from listing uses that are prohibited in the Reserve that are not Covered Activities. Providing no information provides no clarity for current and future land management including the purpose and intent of that management. Thus, to provide clarity, prohibited uses in the Reserve should be added to the HCP.</p> <p>Consequently, for all Zones in the Reserve, the HCP should include a list and description of activities that are not allowed in each zone in the Reserve in addition to Covered Activities. Activities not allowed should include new roads and modifications to existing roads that increase the footprint, frequency or type of use, or other factors that would adversely affect the tortoise and/or tortoise habitat. If this action had occurred in the 1995 HCP, we might not be in the current situation regarding the road issue (Northern Corridor freeway) through the Reserve because the 1995 HCP did not expressly prohibit new roads. This should be an example of applying adaptive management to the Amended HCP.</p> <p>When amending an HCP, the process requires examining what did not work in the original HCP and changing it in the Amended HCP to correct this (i.e., adaptive management), avoid continuing these mistakes into the future, and provide clarity. Any use or action that would result in disturbance to the soil or vegetation in the Reserve, unless its intended purpose is to benefit the tortoise and its habitat, should be prohibited unless it is a Covered Activity.</p>	<p>Section 2 of the Amended HCP describes covered activities inside and outside the Reserve.</p> <p>Refer also to responses to A.51-93 and A.05-2.</p>

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A.51-141	<p>HCP 116 15 2.3</p> <p>Text: “Collaboration is an important principle of this Amended HCP and achieving the biological goals and objectives of this Amended HCP requires the cooperation of multiple HCP Partners across many layers of government.”</p> <p>Comment: We agree. While the success of the Conservation Program and management of the Reserve depends on successful collaboration and timely implementation of it by all federal, state, and local partners, the Federal and state partners are not required to implement conservation actions. Please see Sections 7.C. and 8.E. of the Implementation Agreement. The first section says, “Effect of Federal Default - Failure to comply with or perform the applicable commitment and requirements of this IA or the Amended HCP on the part of a Federal Party shall not result in the suspension or revocation of the New ITP as to any other Parties or any Certificate Holder that is in compliance with the requirements of this IA. Likewise, such a failure will not negatively affect the renewal, amendment, or any other type of extension sought by the applicant.” Thus, if the BLM does not implement its part of the Conservation Program for the Reserve, this failure would not affect the renewal of the permit. The second section says, “Availability of Funds - Implementation of this IA and the Amended HCP by the Parties is subject to the requirements of the federal Anti-Deficiency Act, the laws of the State of Utah, and the availability of appropriated funds from each Party respectively. The Anti-deficiency Act prohibits Federal agencies from incurring obligations or making expenditures (outlays) in excess amounts available in appropriations or funds (31 U.S.C. § 1341 (a)(l)). Agencies of the State of Utah are likewise enjoined in Utah Code § 63G-6a-1204 from entering into contracts or incurring obligations that commit funding beyond that appropriated. Therefore, Federal and state agency support of the conservation measures in the HCP is contingent on having sufficient funding over the term of the HCP.” We acknowledge a requirement to not overspend an appropriated budget. However, we also know that federal and state agencies are given much latitude in how they spend a portion of their budget. Thus, these laws are frequently used as a reason why actions did not happen, when it was a management decision rather than a lack of funds. Ultimately the IA appears to require nothing of the federal or state agencies unless specifically appropriated by their legislative bodies. Consequently, we are not sure what the purpose of the IA is other than to say this might happen.</p>	<p>The BLM, USFWS, and UDNR are key partners in the Washington County HCP and their commitments and actions contribute to the attainment of the recovery-based Biological Goals and Objectives of the HCP. The USFWS acknowledges the specific commitments by these partners in the Implementation Agreement and that HCP successes have occurred because of this history of partnership. Although funding assurances are considered in the evaluation of minimizing and mitigating impacts to the maximum extent practicable, specific funding commitments for each action are not required for an applicant to demonstrate compliance with its ITP or to meet ITP issuance criteria.</p> <p>In the Amended HCP, the County has committed resources during the new ITP term (e.g., funding and staffing) for achieving its Community and Biological Goals and Objectives. The USFWS will review the Amended HCP to determine whether issuance criteria are met.</p> <p>Refer also to responses to A.44-4 and A.51-93.</p>

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A.51-142	<p>HCP 117 22 3.2.1</p> <p>Text: “The MDT is a large, herbivorous reptile that can live up to 80 years.”</p> <p>Comment: Please note the following studies. Curtin and others (2009) used skeletochronology and reported that the oldest western Mojave desert tortoise males reached 56 years compared with 27 years for females. In comparison, the oldest Sonoran desert tortoise males reached 47 to 54 years and the oldest Sonoran desert tortoise females reached 42 to 43 years, the latter significantly older than Mojave females. Medica and others (2012), in a 47-year study reported that the average age of long-term surviving tortoises was 43 years (range = 39–47 years). The lifespans described for tortoises in these studies were shorter than those previously assumed (e.g., up to 83 years) and may alter assumptions for population modeling and viability analyses. We suggest you update this information in the Amended HCP.</p>	<p>The USFWS’ biological opinions and Findings document for the Amended HCP will include the most relevant, currently available biological information and best available science. Refer also to response to A.51-93.</p>

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A.51-143	<p>HCP 118 23 3.2.2</p> <p>Text: “The UVRU is the smallest Recovery Unit and is entirely contained within the County.”</p> <p>Comment: According to the 1994 Recovery Plan and Proposed Desert Wildlife Management Areas (DWMAs) (USFWS 1994), now called “Tortoise Conservation Areas,” the UVRU had an extremely high degree of threat. It had the highest density of tortoises estimated at up to 250 adults per square mile. However, it has only one DWMA [or Tortoise Conservation Area (TCA)]. The desert tortoise population is considerably smaller than that identified in the Recovery Plan as necessary to ensure an adequate probability of population persistence. However, a population of this size can persist if anthropogenic sources of desert tortoise mortality are strictly controlled. The current population has doubtlessly persisted primarily because rugged terrain and poor access discourages anthropogenic habitat destruction and direct sources of desert tortoise mortality. [Recovery Plan 1994 – “Preserving viable populations of desert tortoises within each of these units is essential to the long-term recovery, viability, and genetic diversity of the species.”]</p> <p>For the Upper Virgin River Recovery Unit, the Recovery Plan says, “Develop reserve-level management within DWMAs” (emphasis added). “Because the factors causing the decline of the desert tortoise are primarily human-related, many human activities within DWMAs will need to be strictly regulated or eliminated.” These includes “eliminating burro, horse, and domestic livestock grazing; limiting vehicular access, including prohibiting new vehicular access and reducing existing access; and prohibiting new surface disturbances...” This information on management of this Recovery Unit and TCA should be included in the Amended HCP.</p>	Refer to response to A.51-93.
A.51-144	<p>HCP 119 27 3.2.3.2.1 3</p> <p>Comment: We recommend that Figure 3, which depicts low, medium, high densities and potential tortoise occupied habitats relative to the larger permit and Plan Areas, be supplemented with a second map (perhaps Figure 3b) that shows these polygons within a map focused on the Reserve so that better resolution provides a better depiction of these areas. Zone 6 boundaries should also be added to this enlarged map, which we expect will demonstrate that all of Zone 6 is comprised of Low MDT densities.</p>	Figure 3 of the Amended HCP reproduces mapping from the 1995 HCP that is helpful for understanding the recalibration of take using the updated habitat information. Refer also to response to A.51-93.

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A.51-145	<p>HCP 120 28-30 3.2.3.2.2 3.2.3.3 5</p> <p>Text: “The USGS model quantifies the statistical probability of MDT habitat potential at a spatial resolution of 1 square kilometer (0.39 square mile), based on an analysis of 16 environmental data layers and MDT occurrences (Nussear et al. 2009). However, the scale of the USGS model is relatively coarse and the model does not account for anthropogenic changes to the landscape, such as urban development (Nussear et al. 2009).”</p> <p>Comment: We have several concerns with the way the Nussear et al. (2009) report and potential habitat model for the desert tortoise are used in the 2020 HCP. We have described these concerns in an attached document (Attachment C). Paramount among these concerns is the dismissal of most of the limitations and assumptions the authors presented for assumptions made regarding ecological and behavioral differences, threats, population viability, and reserve design (e.g., habitat quality, habitat quantity, conformation of habitat blocks and edge effect, adequate connectivity between blocks of habitat, etc.). It appears that the 2020 HCP has disregarded most of these limitations and assumptions and used the results of the model as the foundation for the development of the HCP analysis. In addition, the figure (Figure 5 in the 2020 HCP) that maps “suitable tortoise habitat” does not agree with the map from USFWS (2019d) that shows contiguous high value habitat in the UVRU. We request that these concerns be addressed in the revision of the 2020 HCP and any documents used to support the HCP.</p> <p>The 2009 habitat model produced a map the indicated areas with tortoise habitat from 0.5 probability (i.e., 50 percent chance it is tortoise habitat and 50 percent chance it is not) to 0.99 probability. However, even with a 0.99 probability, Nussear et al. (2009) lists several limitations and assumptions regarding the accuracy of the model’s predictions. Among these are the absence of data throughout the range of the tortoise (e.g., climatic data), the need to interpolate data because of this absence, and modeled data for some environmental variables may be untested/incorrect, and the results were scaled to a coarse level (i.e. 1 square kilometer). In addition, we note the model used habitat parameters for both the Sonoran desert tortoise and Mojave desert tortoise. These and other limitations and assumptions render the map of modeled desert tortoise habitat in Nussear et al. (2009) unreliable in its accuracy.</p>	<p>The Defenders of Wildlife model had been considered for use in the EIS, but it was determined that the peer-reviewed U. S. Geological Survey model (with adjustments to address anthropomorphic changes to the landscape) provided the best representation for the UVRU. Refer also to response to A.51-123.</p>

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	<p>We suggest that models are only as accurate as the data used to develop them. They should be verified with statistically adequate ground-truthing throughout the area that they represent. For the 2020 HCP, this would be Washington County. In addition, a model is a tool among many tools to use to help answer a question; it should not be the only source of information for answering a question (e.g., determining occupied and potential habitat for the Mojave desert tortoise). We suggest that the new, revised 2020 HCP employ a more recent model with finer spatial scale produced by Defenders of Wildlife modelling effort (Feinberg et al. 2019), which identifies less habitat for the Mojave desert tortoise in Washington County.</p>	
<p>A.51-146</p>	<p>HCP 121 30-32 3.2.3.3 3.2.3.4 5 4 Comment: Please see our comments in Attachment B regarding the habitat estimates used in the 2020 HCP.</p>	<p>Refer to response to A.51-123.</p>
<p>A.51-147</p>	<p>HCP 122 32 3.2.3.4 Text: “Based on the updated habitat modeling, approximately 40,000 acres of MDT Habitat within the Permit Area (15%) may have been lost to development activities between 1995 and 2019, with approximately 22,821 acres of loss occurring on non-federal lands outside of the Reserve (26%).” Comment: We interpret this to mean that of the 24,096 acres of occupied (12,264 acres) and potential (11,832 acres) tortoise habitat that was authorized for incidental take of the MDT in the 1996 ITP, 94.7 percent of this take occurred between 1996 and 2019. Consequently, there is little unrealized take of MDT as the 2020 HCP claims in Section 5.2.2.2 Amount of Renewed Take Authorization. In this section it requests the acreage where incidental take should be allowed to increase to 66,301 acres or almost a 30 percent increase. Where are the minimization and mitigation measures to offset this additional incidental take?</p>	<p>Since the Draft EIS was published, the County, the BLM, and UDOT have added measures to the Amended HCP and EIS to address these concerns. The original ITP authorized take, “... on up to 12,264 acres of Mojave desert tortoise habitat on non-Federal lands in Washington County, Utah, <b>and on all other non-Federal land in Washington County outside the Beaver Dam Slope area designated as [Mojave] desert tortoise habitat</b> on the date of this permit” (bolded text added for emphasis; USFWS 1996). If the USFWS issues a new ITP, the amount of take evaluated that may occur from Covered Activities in the new ITP will reflect the current application submitted by the County. Refer also to responses to A.51-92 and A.05-2.</p>

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A.51-148	<p>HCP 123 32-33 3.2.4.1. 6</p> <p>Comment: In 2018, the Beaver Dam Slope, Gold Butte, and Mormon Mesa Tortoise Conservation Areas in the Northeastern Mojave Recovery Unit were surveyed. All their density estimates declined from 6.2 to 5.1 adult tortoises per square kilometer, 2.7 to 2.3, and 6.4 to 3.6, respectively. Table 6 needs to be amended to include this information.</p>	<p>Refer to responses to A.51-93 and A.51-142.</p>
A.51-149	<p>HCP 124 33 3.2.4.2.</p> <p>Text: “Applying the USFWS’s estimated density of MDT outside of the Reserve (i.e., 1.3 MDT per square kilometer) to the MDT Habitat that occurs in the portion of the Plan Area that is outside of the Permit Area suggests that the current population of MDT in the Plan Area may be approximately 4,970 individuals.”</p> <p>Comment: While worded as a suggestion, we object to using a model of potential tortoise habitat with numerous limitations and assumptions to calculate the density of tortoises in the UVRU. This is an assumption built on an assumption. Please see our comments in Attachment B regarding the inappropriate way this habitat model is used throughout the 2020 HCP.</p>	<p>Refer to responses to A.51-93 and A.51-142.</p>
A.51-150	<p>HCP 125 33 3.2.4.2</p> <p>Text: “The USFWS estimates that the population of MDT within the UVRU (a geography that is analogous to the Permit Area for this Amended HCP) may be approximately 4,449 individuals. Approximately 2,401 MDT may occur within the Reserve and 2,048 MDT may occur within the UVRU outside the Reserve (Hilary Whitcomb, USFWS, personal communication to Amanda Aurora, SWCA, via email on May 14, 2020). The USFWS further estimates that the number of MDT occupying non-federal lands within the Permit Area but outside of the Reserve is 947 individuals.”</p> <p>Comment: Please provide information or a useable reference that indicates how the USFWS arrived at these calculations. A personal communication is not available to the public for review.</p>	<p>The information in question comes from a biological report that is based on a 2019 workshop of local Mojave desert tortoise experts that included the USFWS, BLM, UDWR, Washington County, and other experts. The workshop was intended to develop a framework to evaluate viability within the Upper Virgin River Recovery Unit (UVRU) among naturally connected and unnaturally fragmented sub-populations and within known occupied Mojave desert tortoise habitat. The USFWS consider this report to contain a summarization of best available science and information that applies a methodology to evaluate viability of</p>

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		<p>sub-populations, their connectivity and their potential condition based on a demographic construct referred to as analytical units. These were sized based on topographical, anthropogenic, and ecological information with the biological experts.</p> <p>Although USFWS expects to further refine the analysis and conclusions of the report (including the conservation value that different analytical units contribute to the UVRU) and will seek further review from the workgroup and outside reviewers, the report in its current form contains generally accepted and agreed-upon information about relative distribution of Mojave desert tortoise and condition of habitat throughout the UVRU and can be cited for that information.</p> <p>A citation for this workshop is included in the Final EIS, as USFWS 2019b, and in the Amended HCP, as USFWS 2019f. A citation for this report is included in the Final EIS as USFWS 2020a.</p>

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A.51-151	<p>HCP 126 33 3.2.4.2</p> <p>Text: “Applying the USFWS’s estimated density of MDT outside of the Reserve (i.e., 1.3 MDT per square kilometer) to the MDT Habitat that occurs in the portion of the Plan Area that is outside of the Permit Area...”</p> <p>Comment: Please see our comments in Attachment B regarding the inappropriate way this habitat model is used throughout the 2020 HCP.</p>	<p>Few areas outside of the Reserve have been surveyed using USFWS survey protocols for density estimates. In close coordination with the Desert Tortoise Recovery Office, the USFWS determined that it was most appropriate to apply the same density estimate throughout all areas of the UVRRU, including Zone 6, where line distance sampling surveys have not been conducted, while noting that this estimate comes with a high degree of uncertainty. In the absence of line distance surveys, this approach balances potential overestimates in some areas with potential underestimates in other areas. The USFWS applied the 2017 Beaver Dam Slope estimate of 1.3 adult Mojave desert tortoises per square kilometer as the closest line distance sampling outside the Reserve. For consistency, the 2017 Beaver Dam Slope estimates are the closest surveys in time to the surveyed areas of Zone 6.</p>
A.51-152	<p>HCP 127 33 3.2.4.2</p> <p>Text: “According to line-distance sampling efforts in 2017, Reserve Zones 2, 3, and 5 support approximately 19.6 adult MDT per square kilometer (36.7 per square mile) and 2,250 adult MDT (McLuckie et al. 2018). Prior to wildfires in 2005, densities were as high as 29.6 MDT per square kilometer. However, UDWR considers the population of MDT within the Reserve to have stabilized: there is no evidence of further declines in tortoise densities” (McLuckie et al. 2020).”</p> <p>Comment: McLuckie et al. (2020) also says “Although the population is considered stable, we have observed a localized decline of densities in Management Zone 3, the core of the Reserve (emphasis added). Tortoises in this area, particularly the west side of Cottonwood Rd, have declined significantly over the years. In 1994, mark recapture plots estimated 87 to 114 tortoises per mile<sup>2</sup> in the City Creek monitoring</p>	<p>The USFWS has addressed this issue by revising relevant sections in the Final EIS; refer to responses to H.65-90 and A.51-101.</p> <p>Regarding the HCP, refer to response to A.51-91.</p>

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	<p>plot, a square mile plot located west of Cottonwood Spring Rd within Management Zone 3 (Fridell et al. 1995a; Fridell et al. 1995b). During the first several years of monitoring (1998 to 2001), tortoise densities were consistently high; however, following two [types of] stochastic events, drought and wildfire, tortoise densities decreased over 50%, from an estimated 3,351 adult tortoises in 2001 to 1,181 adults by 2019. Further, in 2019, we observed one of the lowest encounter rates recorded in Management Zone 3 since monitoring began in 1998.” In addition, the recent Turkey Farm Road and Cottonwood Trail fires that burned 12,000 and 3,000 acres, respectively, in the Reserve likely resulted in the loss of tortoises and tortoise habitat, as these are stochastic events similar to the fire reported by McLuckie et al. (2020) quoted above. We have read reports of 20 to 25 percent of tortoise habitat in the Reserve has been affected by these recent fires. In addition, McLuckie et al (2020) says, “Wildfires in 2005 resulted in substantial losses of adult and juvenile tortoises, with observed mortality rates higher than all other monitoring years (1998 to 2019). The 2005 wildfires burned approximately 7,885 acres of tortoise habitat in the Reserve (~20%; McLuckie et al. 2007).” Thus, the data in the 2020 HCP indicating a stabilized tortoise population is not correct. Please revise the 2020 HCP to include correct this information.</p>	

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A.51-153	<p>HCP 128 34 3.2.5</p> <p>Comment: This section provides an overview of the threats to the MDT rangewide. This information is helpful. However, what is missing from the 2020 HCP is identification of the threats to the UVRRU population of the MDT and their severity. The threats to the UVRRU tortoise population may differ in type or intensity from the species as a whole. This information should be available from population surveys, other monitoring activities conducted in the Plan Area since 1996, and scientific literature derived from the area. This information on local threats and their severity is necessary to develop appropriate biological goals and objectives and conservation actions to implement in the 2020 HCP to reduce these threats to the MDT. Please add this information to this section. We note that Section 3.4.2 provides information on the MDT at a rangewide and UVRRU population level.</p> <p>Given the decline in tortoise numbers and densities in the Reserve since 1996 (see Attachment B), we suggest this indicates that the Reserve is not being managed to strictly control anthropogenic sources of tortoise mortality (e.g., loss of nutritional forage from fires, failure to substantially reduce the presence of non-native invasive plant species, failure to restore habitat for the tortoise, failure to eliminate vehicle-caused mortality and injury (e.g., reports continue of tortoises being run over in Snow Canyon, etc.). All threats to the tortoise specifically known for the UVRRU and the Reserve should be included in this section.</p>	<p>The Amended HCP is the applicant's document. It is a key component of their application for an ITP for listed species that would result from non-Federal activities, as required by the ESA Section 10(a)(1)(B). The USFWS' biological opinions and Findings document for consideration of issuance of an ITP will include the most relevant, currently available biological information.</p> <p>Refer also to response to A.51-93.</p>
A.51-154	<p>HCP 129 34 3.2.5</p> <p>Comment: We find that the paragraph referencing USFWS statements about threats to be generalized and woefully inadequate. The DEIS provides, at least, the following information relative to documented threats: wildfires (page 3-152 in Volume 2), persisting raven depredation of tortoises (page 3-40 in Volume 2), proliferation of weed species (Map 3.2-2a in Appendix B), documented poaching of tortoises (referred to on page 3-36 in Volume 2 but not quantified), and the injury and death of 146 tortoises crushed on existing roads inside the Reserve (page 3-36 in Volume 2). These are documented impacts that we believe show the inefficacy of the existing HCP to protect tortoises. These impacts are inadequately analyzed in the Amended HCP and should be the basis for strengthening protection going forward.</p>	<p>Refer to response to A.51-153.</p>

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A.51-155	<p>HCP 130 39 4.2.4</p> <p>Text: “All of the ecological systems in the Reserve have a high departure from their natural range of variability due to the presence of nonnative grasses and forbs in burned and unburned areas (Provencher et al. 2011).”</p> <p>Comment: This statement indicates there has been a reduction in the quality of tortoise habitat including diversity and density of nutritious forage species. This has occurred because of the spread and proliferation of nonnative plants that outcompete native plants and the absence of management actions in the 1995 HCP (including implementation of adaptive management) to reduce the occurrence of nonnative plant species, which should be clarified in the revised Amended HCP going forward.</p>	Refer to response to A.51-153.

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A.51-156	<p>HCP 131 44 5.1.1</p> <p>Text: “The Reserve has an extensive WUI, [wildland urban interface] as it borders private and municipal lands in the cities of St. George, Ivins, and Hurricane. However, much of the MDT Habitat on non-federal lands bordering the Reserve is degraded habitat already fragmented by roads and isolated by other developments.”</p> <p>Comment: This statement means that indirect impacts from this extensive WUI would be high and would necessitate buffer areas between the WUI and the Reserve for the Reserve to perform its conservation function. In addition, these areas would not be providing the habitat quality needed by the tortoise to survive and recover and could not be included as tortoise habitat in habitat calculations, which should be clarified in the revised Amended HCP going forward.</p>	<p>It is asserted in scientific literature that the size and shape of a reserve matter for the overall effectiveness and how the area around the reserve may impact the reserve values. Disturbance around the periphery of the reserve are assumed to affect the reserve for some undetermined extent within it. This impact is greater and can result in negative impacts when the periphery includes human development or human activities (or other incongruous conditions). There is likely no edge effect to the north where habitat conditions naturally transition into other wild and protected lands. However, on edges where there is development, often referred to as the Wildland Urban Interface, the edge effects exist. Edge effects such as discussed are considered in designing a reserve size and shape and also in consideration for measures to minimize and mitigate impacts. Edge effects were also considered when the original Reserve was established as per the 1995 HCP. Edge effects are also discussed in EIS Section 3.5 related to fragmentation that are likely to result from the proposed Northern Corridor Project. This is why the area of impact evaluated south of the Northern Corridor Project includes the entire acreage as the periphery of the fragmented section would create an edge effect that impacts nearly that entire fragmented area.</p> <p>Refer also to response to A.51-93.</p>

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A.51-157	<p>HCP 132 44-51 5.1</p> <p>Comment: In this section of the 2020 HCP, we did not find a discussion of the issue of invasive plant species previously identified in Section 4.2.2 of the HCP, how it affects the availability of tortoise forage quality, and ultimately the survival, growth, and reproduction of tortoises. This is only one aspect of the issue of habitat quality for the tortoise, which despite being identified as a major concern in Tracy et al. (2004) and the Revised Recovery Plan (USFWS 2011), is ignored in the 2020 HCP. In addition, this section does not address habitat quality despite it being identified in the Nussear et al. (2009) report as an issue that was not considered in the development of the model. Regarding invasive plant species, Jennings (2002) reported “the loss of these preferred plants due to habitat deterioration or invasive species would be quite detrimental.” “Given the lower digestibility and nutritional content of grasses compared with forbs and the potential for growth of juvenile tortoises to be limited in part by dietary nitrogen and phosphorus, a desirable management goal is to reduce biomass of less nutritious, invasive grasses such as Schismus spp. that contain lower nitrogen and produce phosphorus loss, and to maximize diversity and abundance of native plant diversity that includes forb species. This would help tortoises obtain high nutritional foods without additional time spent searching that would increase their vulnerability to predators and temperature extremes (Hazard et al. 2009, 2010). Decisions on habitat management should take both the quantity and quality of tortoise nutritional resources into account. Particular attention should be paid to factors affecting the distribution and abundance of plants high in potassium excretion potential (PEP) index, water, and protein (Oftedal 2002). Alien Schismus spp. and other invading plants have poor nutritional quality for tortoises (Oftedal 2002). When comparing annual forbs with annual grasses, forbs provided more energy, nutrients, and minerals (nitrogen, calcium, phosphorus, and magnesium) to juvenile tortoises than did grasses. Forbs had less fiber and about five times more nitrogen than grasses. Juveniles gained weight rapidly (up to 0.5% of body mass added per day) when eating forbs. While eating grasses, tortoises lost body mass, shell volume, nitrogen, and phosphorus. Tortoises had a net loss of nitrogen and phosphorus on dry grass diets (Hazard et al. 2009, 2010).</p> <p>Thus, the nutritional quality of forage is important to the growth, survival, and reproduction of tortoises. This issue of reduced availability of native forbs because of competition from invasive annual grasses should be included in the 2020 HCP. Please add this adverse effect and information to this section of the 2020 HCP.</p>	Refer to response to A.51-153.

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.51-158	<p>HCP 133 44 5.1.1 Text: "...and other aspects of the built environment can fragment habitat and can have detrimental effects on MDT." Comment: Please add to this section that not only the built environment, but also the non-built environments (e.g., large fires, other human-influenced actions that result in degraded habitat quality such that it can no long provide the life requisites for the tortoise.)</p>	<p>The Final EIS was revised to include information on recent fires and their impact to habitat in non-built environments. Refer also to response to A.51-153.</p>
A.51-159	<p>HCP 134 44-51 5.1 Comment: Whereas we appreciate the generalized review of the literature on impacts given in Section 5.1, we believe that the authors have failed to document the incidences of these general impacts as they specifically occur in the Reserve and Zone 6 areas, which then should drive enhanced protections. With regards to habitat fragmentation (Section 5.1.1), except for discussion on Cottonwood Road, what are the other fragmenting features within the Reserve as described on pages 3-34 through 3-37 in Volume 2 of the DEIS? Section 5.2.1 on Recreation fails to reveal the existing permitted recreational activities in the Reserve or would-be Zone 6 and fails to divulge the intent to maintain competitive events in Zone 6. The County has partnered with Northern Arizona University and more recently with Southern Utah University to conduct Human Impact Monitoring and assess/quantify recreational impacts on habitat (e.g. trail proliferation, illegal social trails, trail widening, etc.) for more than 5 years; why are the results of this monitoring effort in the Reserve not included in the HCP? Missing from Section 5.1.4: where were the 146 tortoises crushed within the Reserve and how will the HCP be amended to avoid further road-killed tortoises? We suspect that the documented loss of 28 tortoises to raven depredation between 2015 and 2019 (page 3-40 of Volume 2 of the DEIS) is a fraction of the actual raven depredation that has occurred and appreciate that these and previous data are included in Section 5.1 of Amended HCP. In fact, the level of detail given in Section 5.1.6 should serve as a good example in amending the rest of Section 5.1. There should also be a new section added on poaching and vandalism within the Reserve, as there have been recent documented incidences of tortoises being removed from the Reserve (i.e., in a recent presentation by Ann McLuckie at a Council Symposium where the act was caught on a motion camera). With these as a few examples, we believe that Section 5.1 of the Amended HCP needs to be substantially modified to document actual impacts within the existing Reserve and</p>	<p>Refer to response to A.51-153.</p>

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	the intended satellite reserve: particularly Sections 5.1.1 on fragmentation, 5.1.2 on recreation, 5.1.3 on grazing, 5.1.4 on both existing and planned-for utilities, 5.1.5 on road impacts, and 5.1.8, which fails to document the extent of fires in the Reserve.	
A.51-160	<p>HCP 135 44 &amp; 89 5.1 6.3.1.3</p> <p>Text: “The Covered Activities are described in Chapter 2. The Covered Activities may directly and/or indirectly affect MDT and can cause incidental take in the form of kill, wound, or harm.”</p> <p>Comment: Please add “harass” to the forms of incidental take.</p>	<p>The USFWS issued guidance in 2018 that clarified “harass” is an intentional act or omission, rather than an incidental act. The policy of the USFWS is that take arising in the form of harassment is not appropriate for authorization through an ITP. For more information, see USFWS. 2018. <i>Guidance on Trigger for an Incidental Take Permit under Section 10 (a)(1)(B) of the Endangered Species Act where Occupied Habitat or Potentially Occupied Habitat is Being Modified</i>. FWS/AES/067974. Memorandum from Principal Deputy Director to Regional Directors 1–8 April 26.</p>
A.51-161	<p>HCP 136 45-46 5.1.2</p> <p>Comment: Because this section of the 2020 HCP is describing Incidental Take and adverse effects to the tortoise and its habitat, we suggest that the last paragraph in Section 5.1.2 (page 46) be moved to Chapter 6. Conservation Program.</p>	Refer to response to A.51-91.
A.51-162	<p>HCP 137 46-47 5.1.4</p> <p>Comment: This section provides several threats to the tortoise with few citations. Please add citations to support this information.</p>	Refer to response to A.51-153.
A.51-163	<p>HCP 138 46-47 5.1.4</p> <p>Comment: As per Comment 134 above, we ask that specific information be provided relative to the Reserve, and that they be mapped (see Comment 62 above).</p>	Refer to response to A.51-153.

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A.51-164	<p>HCP 139 47-48 5.1.5</p> <p>Comment: Another impact of roads that is briefly touched on in this section is fire. Brooks and Matchett (2006) reported that between 1980 and 2004 in the Mojave Desert, the largest amount of area burned occurred in the northeast and eastern Mojave Desert. Human-caused fires prevailed in the low and middle elevations. Since the early 1990s the trend has been for more area burned by these fires in the middle elevation shrubland zone, middle elevation shrublands dominated by creosote bush (<i>Larrea tridentata</i>), Joshua tree (<i>Yucca brevifolia</i>), and/or blackbrush (<i>Coleogyne ramossissima</i>), where most of the fires occurred between 1980 and 2004. This zone is more susceptible than other areas of the Mojave Desert to increased fire size following years of high rainfall. Increases in fire size are likely related to the flush of non-native annual grasses, <i>Bromus rubens</i> in particular, that produces continuous fuel beds following years of high rainfall. Car fires along roadside are frequent causes of fires in the Mojave Desert. Native fuels in the middle elevation zone [includes the UVRU] appear to be just below the threshold of allowing fire to spread. This indicates the need to reduce the presence of nonnative annual plants that provide fuel to carry fires and to reduce or eliminate the presence of vehicles, whenever possible in the Reserve. Please include these adverse effects in this section of the 2020 HCP.</p>	Refer to response to A.51-153.
A.51-165	<p>HCP 140 48-49 5.1.6</p> <p>Comment: This section on predation does not mention road kill as a subsidized source of food for ravens. Please add this to this section.</p>	Refer to response to A.51-153.
A.51-166	<p>HCP 141 48 5.1.6</p> <p>Text: “While raven predation in the Reserve has been occurring for many years (i.e., in 1997, nearly 34 MDT carcasses were observed in Reserve Zone 5 near a single raven roost site), data has only been consistently gathered since 2015 (Schijf et al. 2018).”</p> <p>Comment: This statement says that adaptive management has not been working very well in the implementation of the 1995 HCP. This deficiency needs to be addressed in the 2020 HCP.</p>	Refer to responses to A.51-91 and A.51-98.

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<b>Letter #- Comment # or Public Concern Statement #</b>	<b>Comment</b>	<b>Response</b>
A.51-167	<p>HCP 142 51 5.1.8</p> <p>Comment: This section mentions several actions that could be implemented to reduce the likelihood of fire ignition and transmission. Because this section of the 2020 HCP is describing incidental take and adverse effects to the tortoise and its habitat, we suggest that this entire section on Fire Management be moved to Chapter 6. Conservation Program. We request that information on the adverse effects to the tortoise/tortoise habitat from implementation of fire prevention and fire suppression (e.g., use of fire retardant that promotes the growth on non-native invasive plant species) activities by the non-Federal partners be added to this section.</p>	Refer to response to A.51-153.

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A.51-168	<p>HCP 143 51 5.2</p> <p>Text: “The County has applied for the Renewed/Amended ITP to extend time wherein the County and others under the County’s direct control may continue to access the previously authorized, but as yet unutilized incidental take.”</p> <p>Comment: While this is true, it is only part of the truth. USFWS has granted an extension of the 1996 ITP while the County diligently works to complete its application for a Renewed/Amended ITP. We request that planning information since the 2016 extension be documented in this section of the 2020 HCP. Who participated and what were the major decisions made during the extended period of take authorization?</p>	<p>In a letter dated March 24, 2015, the USFWS acknowledged the receipt of Washington County’s permit renewal application dated January 30, 2015. In that letter, the USFWS indicated that the County could continue the activities authorized in their existing permit while the USFWS acted on their permit renewal request. During that time, the County began discussing the Northern Corridor with the USFWS. The USFWS advised the County that the Northern Corridor could violate the terms of the 1995 HCP without sufficient conservation measures. The USFWS continued to have conversations with the County regarding information needs to support their application. In 2017 and 2018, the USFWS began discussing a framework for the draft amendment to the HCP with the County. In May of 2019, the County provided the USFWS with initial chapters for the draft HCP amendment for USFWS review. Coordination, review, and conversations continued as chapters were completed. Refer also to response to A.35-8.</p>

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A.51-169	<p>HCP 144 51 5.2</p> <p>Comment: We request that this section be modified to fully document why it has taken from 2016 to 2020 to revise the HCP and reissue the ITP. Except for the 20-year time period of the 1996 ITP, there appears to be no other compelling reason to revise the HCP and reissue the ITP (i.e., ostensibly, 912 tortoises may still be taken and 66,301 acres may still be developed under the current authorization), except that the County now wants to develop the Northern Corridor and it has taken these last four years in the interim for agencies and their consultants to devise a compromise that redesignates Zone 6 as a conservation area with no relatable documented economic or planning impacts to Washington County (except that SITLA lands may not be sold and subsequently developed to the benefit of the County's tax base).</p>	Refer to response to A.51-168.
A.51-170	<p>HCP 145 51-52 5.2.1.1 9</p> <p>Text: "The County estimates that 257 MDT individuals should be appropriately characterized as taken by the Covered Activities."</p> <p>Comment: We found no information on how this number was calculated. In fact, a knowledgeable biologist in the area has reported that more than 500 tortoises have been translocated under authority of the ITP, which does not even include the tortoises removed that tested positive for Upper Respiratory Tract Disease. In its annual reports, Washington County should have been reporting to the USFWS the number of tortoises incidentally taken through implementation of Covered Activities. We request that this information be provided in the 2020 HCP to support the level of incidental take that is claimed in this section. If not available, it seems that Washington County did not take its responsibilities seriously under its 1996 ITP as that permit required Washington County report annually the amount of incidental take and to implement the 1995 HCP, which says, "6.2.3 Habitat Conservation Advisory Committee (HCAC)" "They will direct the activities of the administrator and review and approve the annual work plan and quarterly and annual reports on the quantity of take and mitigation implemented prior to submission of the documents to the County Commission. All deficiencies in the reports identified by the HCAC will be corrected or completed by the HCP administrator."</p> <p>Similarly, Section 6.3.2 of the HCP requires "The following information will be included in each quarterly report:</p>	<p>Table 9 of the Amended HCP describes the number of Mojave desert tortoises processed through the HCP between 1996 and 2019.</p> <p>The County has reported the level of incidental take from the 1996 ITP as part of the annual reports required by the ITP. The annual reports are available to the public online at <a href="http://www.redcliffsdesertreserve.com/public-meetings">http://www.redcliffsdesertreserve.com/public-meetings</a>.</p> <p>Refer also to response to A.51-94.</p>

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	<p>Clearances Requested: Owner, Number of Acres, Legal Description, General Location.                      Surveys Conducted: Owner, Number of Acres, Results, Who Conducted Survey.                      Audits Performed by UDWR: Owner, Number of Acres, Person Conducting Survey, Discrepancies Noted.                      Removals Conducted: Owner, Acres, Number of Passes, Number of Desert Tortoises Expected, Number of Desert Tortoises Removed.                      Law Enforcement: Report by UDWR and BLM.”                      In addition, the 2020 HCP says, “Take of individuals collected and processed for recovery purposes was authorized by UDWR’s recovery permit and other Section 6 agreements with the USFWS.” This process requires annual reporting to the USFWS of the number of individual tortoise taken. Also see p. 55 of the 2020 HCP, which says, “these MDT will be reported separately from the MDT incidentally taken by Covered Activities in the Annual Reports to the USFWS and the HCP Partners.” Thus, the data on incidental take subject to the Covered Activities of the HCP should be available. Please provide this information in this section of the HCP. If it is not available, then it appears that Washington County is not in compliance with its 1995 HCP and 1996 ITP. If so, the County would not be able to renew and amend the 1996 ITP as USFWS should have rescinded the ITP. 50 CFR 13.21(c)(4) says, “(4) The failure to submit timely, accurate, or valid reports as required may disqualify such person from receiving or exercising the privileges of a permit as long as the deficiency exists.”</p>	

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.51-171	<p>HCP 146 51-53 5.2</p> <p>Text: “Based on the updated habitat modeling, approximately 40,000 acres of MDT Habitat within the Permit Area (15%) may have been lost to development activities between 1995 and 2019, with approximately 22,821 acres of loss occurring on non-federal lands outside of the Reserve (26%).”</p> <p>Comment: This latter figure would apply to the HCP. We note that Section 5.2.1 claims that because only a portion of the tortoises authorized for take were taken between 1996 and 2019, the remaining portion can still be taken through permit renewal. However, the Applicant wants to convert number of tortoises to acres of habitat as a surrogate. This conversion calculation ignores the specific language in the 1996 ITP that says “The Permittee is authorized to take (kill, harm, harass, etc. as defined in the Endangered Species Act of 1973, as amended (ESA) up to 1,169 desert tortoises (<i>Gopherus agassizii</i>) incidental to otherwise lawful activities including, but not limited to, grading or other earth-moving activities for construction and development projects on up to 12,264 acres of Mojave desert tortoise habitat on non-federal land in Washington County, Utah, and on all other non-federal land in Washington County outside the Beaver Dam Slope area designated as tortoise habitat on the date of this permit, as more fully described in the Permittee’s federal fish and wildlife permit application and the WCHCP.” This information is on Figure 1.1 of the 1995 HCP. Thus, this information must be carried forward to the 2020 HCP and this is the amount and location of incidental take that was authorized in the 1996 ITP. If the Applicant wants to request incidental take above this number of tortoises or in other areas that it now labels tortoise habitat that were not considered habitat in 1996, the Applicant must amend their application request to reflect this increase in incidental take and must minimize and mitigate to the maximum extent practicable this additional incidental take.</p>	<p>Refer to responses to A.51-147, A.51-93, and A.05-2. The USFWS’ biological opinions and Findings document for consideration of issuance of an ITP will include the most relevant, currently available biological information and take numbers.</p>

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A.51-172	<p>HCP 147 52 5.2.1.2</p> <p>Text: “In terms of the updated habitat modeling described in Chapter 3.2.3.2 (i.e., the updated take metric for this Amended HCP), the Covered Activities caused the loss of 16,037 acres of Occupied MDT Habitat and 6,785 acres of Potential MDT Habitat (together, 22,822 acres of MDT Habitat) from non-federal lands in the Permit Area.”</p> <p>Comment: As stated above in Comment 120, we have numerous issues with the way the model of potential desert tortoise habitat is used especially as a foundation for other assumptions, and the apparent dismissal of most limitations and assumptions (see also Attachment B). The ITP is very specific as to what it authorizes. For loss of habitat, it authorizes the loss of “up to 12,264 acres of Mojave tortoise habitat on non-Federal land in Washington County, Utah and on all other non-federal land in Washington County, Utah outside the Beaver Dam Slope area designated as desert tortoise habitat on the date of this permit.” According to Table 10 of the 2020 HCP, this was 24,096 acres of occupied (12,264 acres) and potential (11,832 acres) tortoise habitat. We request this information be carried forward when the Permittee is showing the acres developed under the 1996 ITP and acres acquired by the Permittee under the 1996 ITP to provide history, for comparison between the two HCPs and transparency.</p>	<p>Since the Draft EIS was published, the County, the BLM, and UDOT have added measures to the Amended HCP and EIS to address these concerns.</p> <p>The original ITP authorized take, “... on up to 12,264 acres of Mojave desert tortoise habitat on non-Federal lands in Washington County, Utah, <b>and on all other non-Federal land in Washington County outside the Beaver Dam Slope area designated as [Mojave] desert tortoise habitat</b> on the date of this permit” (bolded text added for emphasis; USFWS 1996).</p> <p>If the USFWS issues a new ITP, the amount of take evaluated that may occur from Covered Activities in the new ITP will reflect the current application submitted by the County. Refer also to responses to A.51-147, A.51-123, and A.05-2.</p>
A.51-173	<p>HCP 148 52 5.2.2</p> <p>Text: “...which incorporates the current best available information about the distribution of MDT Habitat”</p> <p>Comment: Again, we affirm this is not correct. Please see our comments in Attachment B regarding the many assumptions and limitations that were ignored in mapping this habitat in the HCP, including threats and stressors to habitat and habitat quality, size, configuration, and connectivity.</p>	<p>Refer to responses to A.51-93 and A.51-123.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.51-174	<p>HCP 149 53 5.2.2.1.1 Text: “Take arising from the Covered Activities may occur through directly killing or wounding individual MDT or through indirectly harming MDT by significantly altering MDT Habitat in ways that lead to actual death or injury of an individual MDT.” Comment: Please add “or harassing” after “harming” to the above statement in the 2020 HCP.</p>	<p>The USFWS issued guidance in 2018 that clarified “harass” is an intentional act or omission, rather than an incidental act. The policy of the USFWS is that take arising in the form of harassment is not appropriate for authorization through an ITP. For more information, see USFWS. 2018. <i>Guidance on Trigger for an Incidental Take Permit under Section 10 (a)(1)(B) of the Endangered Species Act where Occupied Habitat or Potentially Occupied Habitat is Being Modified</i>. FWS/AES/067974. Memorandum from Principal Deputy Director to Regional Directors 1-8, April 26.</p>
A.51-175	<p>HCP 150 54 5.2.2.1.2 Text: “Tracking take of MDT in terms of the acres of MDT Habitat that is directly modified by Covered Activities is a surrogate metric with a rational link to the true number of taken individuals.” Comment: We strongly disagree with this statement. Take can occur from many indirect effects that do not affect the quality of habitat or that degrade but do not destroy habitat. As such, there should be a metric that is developed to calculate the amount of take from the Covered Activities that include these indirect effects that lead to incidental take, just as the HCP argues that the USFWS developed a metric for determining number of tortoises from tortoise detections during surveys. We request that the statement above be changed to say, “directly or indirectly modified” and that an appropriate metric be developed to include indirect impacts from Covered Activities. The product of this metric would be larger than the footprint or direct impact of the Covered Activity.</p>	<p>The use of a habitat metric to represent number of individual animals is consistent with HCP regulations and guidelines, including the 2015 Surrogate Rule at 80 FR 26842 (published on May 11, 2015).</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.51-176	<p>HCP 151 54 5.2.2.1.3</p> <p>Comment: We agree that the footprint of most authorized development projects is measurable. However, because something is easily measured does not make it the metric that accurately represent the amount of incidental take or impacts of the incidental take. Please see Comment 150 regarding appropriate measurement or metric for indirect impacts that are likely to result in incidental take.</p> <p>In addition, some people develop projects without permits. Consequently, the example provided in the 2020 HCP in this section should additionally address how unpermitted development will be tracked in this metric, and what actions the Permittee will take to require the unpermitted activity complies with the HCP, or not.</p>	<p>The use of a habitat metric to represent number of individual animals is consistent with HCP regulations and guidelines, including the 2015 Surrogate Rule at 80 FR 26842. The Amended HCP describes the Covered Activities and the means by which the County, as the ITP holder, has control over those activities.</p>
A.51-177	<p>HCP 152 55 5.2.2.2</p> <p>Text: “The County requests the renewal of as yet unrealized incidental take of the MDT associated with the Covered Activities in an amount equivalent to the direct loss of up to 14,466 acres of Occupied MDT Habitat and 51,835 acres of Potential MDT Habitat within the Permit Area. These combined 66,301 acres represent the current extent of MDT Habitat occurring within the Permit Area, outside of the 2019 Reserve boundary.”</p> <p>Comment: If the acres authorized for development in 1996 were 12,264 acres, we are not sure how this is equivalent to direct loss of 14,466 acres of Occupied MDT Habitat and 51,835 acres of Potential MDT Habitat. Please explain the discrepancies in the figures between what the 1996 ITP said and what Washington County is now saying. In addition, we compare this with the 24,096 acres permitted in 1996. This is more than a doubling of acres in the loss of occupied/potential habitat with no new or substantial increase in minimization or mitigation to offset these new impacts during the next 25 years. If The Permittee is requesting this much take, the conservation plan should be much greater than provided in the 1995 HCP to offset this take and should be effective for the threats that the MDT faces today and in the foreseeable future. These are not necessarily the same in identification or intensity as those it faced in 1995.</p>	<p>The County has committed to provide new resources to the continued implementation of the Amended HCP, with and without the Northern Corridor, that support attainment of the Community and Biological Goals and Objectives. These new conservation commitments are in addition to the conservation values generated during the implementation of the 1995 HCP that exceeded the values evaluated at the time the original ITP was issued. In consideration of the past accomplishments and future commitments of the County and the HCP Partners, the USFWS will consider whether the impacts of the requested take for the new ITP term meet ITP issuance criteria.</p> <p>Refer also to response to A.51-147.</p>

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A.51-178	<p>HCP 153 57 5.3</p> <p>Text: “The amount of MDT Habitat within the Reserve that may be permanently lost to Covered Activities will not exceed 200 acres over the duration of the Renewed/Amended ITP Term. Considering the estimated average annual loss of habitat from Covered Activities or similar activities on federal lands within the Reserve, approximately 50 acres of new habitat loss might be expected over the Renewed/Amended ITP Term.”</p> <p>Comment: We question why there would be any permanent loss. In examples provide in the section of past loss in the Reserve, these included “the County estimates that Covered Activities or similar activities on Federal lands within the Reserve during the original ITP Term caused the permanent (or, in some cases, temporary) loss of approximately 40 to 50 acres of MDT Habitat. This equates to approximately 2 acres of habitat loss per year associated with new utility pole footings, utility access roads, trails, or recreation facilities.” There should be no new utility access roads in the Reserve. Utility pole footing, new trails and recreation facilities should not add up to 40 or 50 acres. Apparently, Washington County is aware of actions that would result in the loss of 50 acres, but is requesting 200 acres, presumably a de facto plan to accommodate the Northern Corridor. We request that information on specific actions/projects that would result in permanent loss be included in this section of the HCP. Again, we note that USFWS needs this information to analyze the adverse effects in their biological opinion on the issuance of the incidental take permit and in their NEPA document on permit issuance. In addition, we request that the entity responsible for the loss be required to place a permanent conservation easement on the habitat acquired as mitigation, so its use cannot be changed in the future.</p>	<p>The Northern Corridor is not included in the 200 acres of anticipated habitat loss from covered activities within the Reserve. The Northern Corridor is a changed circumstance, not a covered activity, in the Amended HCP. Refer also to response to A.51-93.</p>
A.51-179	<p>HCP 154 57 5.3</p> <p>Text: “Conservation measures that address HCAC or TC recommendations for offsetting impacts to MDT taken by Covered Activities Inside the Reserve may include the following.... Case-by-case consideration for conservation credit generated by actions that ...prevent wildfire within the Reserve, control invasive species within the Reserve.”</p> <p>Comment: The Conservation Program should already be implementing and funding these actions in the HCP. Please ensure this is occurring along with areas adjacent to the Reserve.</p>	<p>Table 15 in the Amended HCP describes Washington County and partner conservation accomplishments. Refer also to response to A.51-91.</p>

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A.51-180	<p>HCP 155 57 5.3</p> <p>Comment: We find it revealing that the DEIS consistently characterizes the No Action Alternative with the inability of the County to revise the HCP or USFWS to reissue the ITP; that unless the Northern Corridor is developed, the County cannot revise the HCP or solicit a new ITP. Yet, in the Amended HCP, on page 57, there is the misleading statement that the new take authorization will result in only 200 acres of new impacts, without acknowledging that the County will only consider reissuance of the ITP if the Northern Corridor is developed. It is revealed in Table 3.2-2 on page 3-12 of Volume 2 that the action alternatives will have the following impacts: 266 acres for the T-Bone alternative, 240 acres for UDOT alternative, and 286 acres for the southern alternative. Since the environmental documentation inextricably links reissuance of the ITP with development of the Northern Corridor (hence the real reason for the four-year delay since reissuance), isn't it misleading that this section claims that only 50 of the authorized 200 acres inside the Reserve will be developed, when it should reveal that, but for the Northern Corridor, there would be no immediate impacts? And, that the baseline for the impact will be at least 240 acres developed within the Reserve within the next few years as the result of permit reissuance? That, whereas only 40-to-50 acres have been developed in a dispersed pattern over the past 24 years (top of page 57; and see Figure 10 on page 59), 240 acres within the main conservation area will be developed in the immediate future within a 600-foot wide ROW within the next few years as the direct result of permit issuance?</p>	<p>The Northern Corridor is not included in the 200 acres of anticipated habitat loss from covered activities within the Reserve. The Northern Corridor is a changed circumstance, not a covered activity, in the Amended HCP. Refer also to response to A.05-23.</p>

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A.51-181	<p>HCP 156 60 5.4</p> <p>Text: “Therefore, the implementation of this Amended HCP remains consistent with the analysis in the 1996 Biological Opinion (USFWS) 1996) and 1995 Environmental Impact Statement (USFWS 1995).”</p> <p>Comment: For the same reasons given in the previous comment, we disagree with the above statement. The agencies and County have devised a nexus, unique to the 2020 analysis and nonexistent in 1995-1996, that predisposes development of the Northern Corridor, which was not foreseen in the 1996 biological opinion or 1995 EIS, and therefore negates the applicability of these two documents because the Northern Corridor is linked to reissuance of the ITP in such a way that both must happen. As asserted above, there is no justification that the BLM’s No Action Alternative must be characterized with inability to revise the HCP or reissue the ITP. We construe the agencies failure to analyze an alternative that denies the Northern Corridor while providing for reissuance of the ITP has fatally flawed tortoise conservation while guaranteeing a freeway through the heart of the Reserve, which can no longer function as the foundation of the HCP/ITP, and is not mitigated by redesignation of a noncontiguous, satellite reserve.</p>	<p>Refer to responses to A.51-94, A.51-91, A.05-23, and A.05-2.</p>
A.51-182	<p>HCP 157 60 5.4</p> <p>Comment: To be accurate about the intent of the County and agencies to accommodate the freeway, the following statement on page 60 should be modified with the following bold-font text: “However, some of the underlying information associated with the analyses in the 1996 Biological Opinion and 1995 Environmental Impact Statement has changed over time...This updated information includes the duration over which incidental take would occur, the amount and extent of MDT Habitat in the Plan Area, the estimates of MDT density and abundance within the Reserve, and the Reserve will no longer be maintained as an intact, unfragmented conservation area due to development of the Northern Corridor.”</p>	<p>Refer to responses to A.51-93 and A.51-94.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.51-183	<p>HCP 158 60 5.4</p> <p>Text: "...the implementation of this Amended HCP remains consistent with the analysis in the 1996 Biological Opinion (USFWS 1996) and 1995 Environmental Impact Statement (USFWS 1995)."</p> <p>Comment: While Washington County may make this claim, it is not true. Since 1996, new information has been collected on the status of the tortoise and threats to the species and needs for survival and ultimately recovery. This new information must be used in the USFWS' documents when considering permit issuance, including the biological opinion, findings document, and NEPA document. Because this statement is not correct, we request that it be removed from the HCP.</p>	<p>The USFWS conducts an independent analysis of the HCP in two associated documents, the Biological Opinion and the Findings and Recommendations Memorandum (also referred to as Findings). These documents assess the impacts to all Federally listed species within the action area and assess the HCP in light of the issuance criteria, respectively.</p> <p>Refer also to responses to A.51-91 and A.51-94.</p>
A.51-184	<p>HCP 159 60 5.4</p> <p>Text: "In consideration of the No Surprises assurances provided to ITP permittees, substantial new analysis of the impacts of the reauthorized take is not warranted—the USFWS has already determined the authorized take to be consistent with the issuance criteria for an ITP."</p> <p>Comment: The No Surprises assurances rule was adopted by the USFWS in 1998 [63 Federal Register (35) 8859-8873]. The existing ITP was issued in 1996, consequently, this assurance has not yet been provided to Washington County. With the issuance of an amended permit by the USFWS, the No Surprises assurances would be in effect. Consequently, we request that this inaccurate wording be removed from the HCP.</p>	<p>No Surprises assurances applies only to the duration of the existing permit (USFWS and NMFS 2016, p. 12-10); the 1996 ITP expired in 2016. Once amendments associated with the permit are finalized, No Surprises assurances that are described in our regulations (63 FR 8859, February 23, 1998) would apply to the amended HCP and ITP for the duration of the permit because the Amended HCP contains enumerated changed circumstances.</p>

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A.51-185	<p>HCP 160 60 5.4</p> <p>Text: “However, some of the underlying information associated with the analyses in the 1996 Biological Opinion and 1995 Environmental Impact Statement has changed over time in ways that could affect the USFWS’s analysis of the impacts of the reauthorized take against the jeopardy and destruction or adverse modification of critical habitat standards related to ITP issuance.”</p> <p>Comment: We agree with this statement. However, it is only one part of the analysis process. USFWS’ analysis is for the population in the recovery unit and critical habitat unit, as well as a rangewide analysis. Consequently, the HCP should provide information on the status and trend of the Mojave desert tortoise throughout its range to assist the USFWS in its analysis. Please provide this information in the HCP.</p>	Refer to response to A.51-183.
A.51-186	<p>HCP 161 61 5.4.2</p> <p>Text: “The updated modeling relies on both the original surveys, more recent MDT observations, and the range wide USGS habitat model (as modified for the UVRU).”</p> <p>Comment: We reiterate the problems with the updated habitat mapping given in Comment 120. Please see Attachment B for these concerns regarding its accuracy. The updated model ignores limitations and assumptions in the model’s report and fails to consider information. This updated model serves as the foundation for the HCP’s incidental take limit, areas identified for this take, and Conservation Program. Because the updated model is seriously flawed, everything in the HCP that refers to it is flawed.</p>	Refer to response to A.51-123.
A.51-187	<p>HCP 162 62 5.4.2 10</p> <p>Comment: Please see Comment 120 and others regarding the figures used in Table 10 to update habitat modeling.</p>	Refer to response to A.51-123.

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A.51-188	<p>HCP 163 62-63 5.4.3</p> <p>Comment: On page 62, high, medium, and low tortoise densities are given per square mile, whereas on page 63, tortoise densities are reported in square kilometers. We request that this section (and all others) be modified to reveal consistency between the units being used (e.g., either square miles OR square kilometers).</p>	<p>Refer to response to A.51-91.</p>
A.51-189	<p>HCP 164 63 5.4.3</p> <p>Comment: We note on page 63 that the highest tortoise densities within the Reserve in 2017 are given as 22.5 tortoises/km<sup>2</sup>, which equates to 234 tortoises/mi<sup>2</sup>. However, we note the following data given on page 3-55 of Volume 2 of the DEIS: “Surveys conducted in Zone 3 during 2017 resulted in a density estimate of 17.2 Mojave desert tortoises per square kilometer ... 2019 surveys of Zone 3 resulted in a density estimate of 12.3 animals per square kilometer.” Please explain the discrepancy among these data. Also, it is our understanding that a 2020 monitoring report is now available, is not included in your analysis, and should be included in the Final EIS.</p>	<p>USFWS’ Biological Opinions and Findings document for consideration of issuance of an ITP will include the most relevant, currently available biological information. Refer also to response to A.51-91.</p>
A.51-190	<p>HCP 165 63 5.4.3</p> <p>Comment: We note the following, similar statement on page 63: “The best available information indicates that the present average density of MDT within the Reserve is 19.6 MDT per square kilometer (McLuckie et al. 2018).” Don’t the most recent data available to the authors, from 2019, show that the average density is now at 12.3? (Keeping in mind, as given above, that the 2020 monitoring data need to be added). Though not clearly divulged in the DEIS, the results from these data are very misleading as they rely on a preconstruction survey technique designed by USFWS compared to earlier distance sampling census techniques. The USFWS (2019a) technique is developed to estimate abundance prior to construction projects (not to estimate regional density) and surveys were conducted by individuals with minimal training. It is very misleading to compare the numbers estimated for this project to regional densities, which rely on two different techniques. We ask that the data derived from regional distance sampling methods versus project-impact estimation methods be compared in the Final EIS with a discussion of the relevancy (and irrelevancy) of comparing differing results.</p>	<p>USFWS’ Biological Opinions and Findings document for consideration of issuance of an ITP will include the most relevant, currently available biological information. Refer also to response to A.51-91.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.51-191	<p>HCP 166 63 5.4.3 3</p> <p>Text: “However, survey data for approximately 5,150 acres of land contained within the proposed Reserve Zone 6 (see Chapter 9.1.1.1) demonstrates that the density of MDT in this area rivals that of the Reserve (i.e., approximately 22.5 MDT per square kilometer, see Rognan et al. 2017).”</p> <p>Comment: The above statement is not consistent with information presented in Figure 3 of the Amended HCP, which shows all of Zone 6 as being Low Density MDT Habitat. Please explain this apparent discrepancy. We believe this section would benefit from a map that shows 1995 estimated densities compared to 2019 estimated densities.</p>	<p>Figure 3 of the Amended HCP represents the data available at the time of the 1995 HCP. The Amended HCP incorporates updated biological information about Mojave desert tortoise habitat. Updated habitat is shown on Figure 5. USFWS’ Biological Opinions and Findings document for consideration of issuance of an ITP will include the most relevant, currently available biological information.</p>
A.51-192	<p>HCP 167 63</p> <p>5.4.3Text: “The USFWS approximates the present average density of MDT outside the Reserve as 1.3 MDT per square kilometer, based on the estimated density of MDT in the adjacent Northeastern Mojave Recovery Unit (Laura Romin, USFWS, personal communication, to Amanda Aurora, SWCA, via email on April 23, 2020).”</p> <p>Comment: According to the USFWS Desert Tortoise Recovery Office (2019), the current estimated density of adult desert tortoises per square kilometer in the Northeastern Mojave Recovery Units is 5.1 for the Beaver Dam Slope, 2.3 for Gold Butte-Pakoon, and 3.6 for Mormon Mesa. Consequently, we request that the HCP update its information. [USFWS. 2019. Range-Wide Monitoring of the Mojave Desert Tortoise (Gopherus agassizii): 2018 Annual Reporting. Prepared by Linda Allison Desert Tortoise Monitoring Coordinator. US Fish and Wildlife Service, June 2019.] <a href="https://www.fws.gov/nevada/desert_tortoise/documents/reports/2020/2019_DRAFT_RangewideMojaveDesertTortoiseMonitoring.pdf">https://www.fws.gov/nevada/desert_tortoise/documents/reports/2020/2019_DRAFT_RangewideMojaveDesertTortoiseMonitoring.pdf</a>]</p>	<p>Refer to response to A.51-151.</p>

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Letter #- Comment # or Public Concern Statement #	Comment	Response
A.51-193	<p>HCP 168 63 5.4.3 Text: “The 1995 HCP estimated the abundance of MDT in the Plan Area as 7,883 adult individuals.” Comment: Table 2.1 of the 1995 HCP says, “Estimated Desert Tortoise Habitat Acreage and Number of Animals in the Upper Virgin River Recovery Unit.” The total number of animals was given as 7,883. Please correct the wording in the 2020 HCP to indicate the 7,883 animals is for all tortoises, not only adults.</p>	<p>The wording of the 1995 HCP did not accurately reflect the meaning of the population estimate. At the time, it was not standard practice to include non-adult age classes in estimates of abundance. USFWS’ Biological Opinions and Findings document for consideration of issuance of an ITP will include the most relevant, currently available biological information.</p>
A.51-194	<p>HCP169 65 6.1.1 Comment: It is not appropriate to place this section under Section 6.1 Conservation Program Goals and Objectives. Growing the human population and development of Washington County is not part of the conservation program. The HCP uses the argument “But for the attainment of these community goals and objectives [of growth and development], the progress toward meeting the biological goals and objectives would not be possible.” We contend that the growing human populations and its impacts on the tortoise and its habitat are the reasons why the tortoise is in trouble and needs a conservation program for it to survive. Because this section explains why there is a need for an amended HCP and ITP, please move this information to the appropriate section in Chapter 1, the usual location for Purpose and Need explanations.</p>	<p>Refer to response to A.51-91.</p>

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A.51-195	<p>HCP 170 66 6.1.1</p> <p>Text: “The County also intends for this Amended HCP to respond to the proposed Northern Corridor. Although not a Covered Activity, the proposed Northern Corridor has been identified as an important piece of local infrastructure in transportation planning documents since the mid-1980s (Washington County 2012), and Federal consideration for a Northern Corridor across the RCNCA is mandated in the 2009 Omnibus Public Lands Bill (Public Law 111-11).”</p> <p>Comment: In reading Public Law 111-1, we found no language that says that Federal consideration for a Northern Corridor across the RCNA is mandated. What we did find was that Section 1974 (e)(3) says, “(3) MOTORIZED VEHICLES.—Except in cases in which motorized vehicles are needed for administrative purposes, or to respond to an emergency, the use of motorized vehicles in the National Conservation Area shall be permitted only on roads designated by the management plan for the use of motorized vehicles; and in developing the current management plan for the (2009 legislation mandated the management plan be completed by 2012) the Secretary may incorporate any provision of (A) the habitat conservation plan; (B) the resource management plan; and (C) the public use ion 1977(b)(2)(A)plan.” Section 1977(b)(2)(A) says, “identify 1 or more alternatives for a northern transportation route in the County.” Please revise the language in this paragraph of the HCP.</p>	<p>Refer to responses to A.51-91, NCA-01, and H.65-26.</p>

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A.51-196	<p>HCP 171 66 6.2.1</p> <p>Comment: In reading the 1995 HCP, we learned that there was one biological goal “to provide a mechanism to allow orderly growth and development in Washington County without further jeopardizing the status of Federally listed or candidate species, focusing on protection of the desert tortoise.” It put community development before conservation as it used jeopardy as the standard rather than offsetting impacts. There were four objectives under this one goal – (1) Provide adequate protection for the desert tortoise by implementing aspects of the DTRP through the creation and management of the Upper Virgin River Desert Wildlife Management Area. (2) Provide protection for other listed and candidate species and their habitats. (3) Meet the growth and development needs of the County. And, (4) Create a framework within the County to deal with current and future listed species. However, the 2020 HCP says “The 1995 HCP identified several biological goals and objectives for the conservation program, restated with some modifications here...” We request that Section 6.2.1 be revised and include this information as presented in the 1995 HCP with no modifications or interpretations. We request this because the USFWS’ HCP Handbook says, “it is important that the HCP, incidental take permit, and associated documents are written clearly so that future users can fully understand how to implement the HCP and to ensure it will meet the stated goals and objectives. Although all parties actively developing the HCP may fully understand what is expected and anticipated, future responsible parties will only have what is written in the HCP, permit, and associated documents to guide them. Be mindful of the future when reviewing the draft HCP and its associated documents. If it is not clear, recommend revisions to clarify specific sections or to better explain the intent and rationale behind decisions or approaches.”</p>	<p>The 2020 Amended HCP is an amendment and does not need to carry forward all biological goals and objectives from the 1995 HCP. Refer also to response to A.51-91.</p>
A.51-197	<p>HCP 171 66 6.2.1</p> <p>The 2016 HCP Handbook says, “Developing the conservation strategy of HCPs will be framed around the tenets of Strategic Habitat Conservation (SHC)... that links actions to outcomes, with learning as an explicit objective of conservation actions.” This includes “developing a monitoring framework to measure results, developing an evaluation process to assess results, and outlining a systematic learning process to use what will be learned to improve future decisions.” This strategy and process would apply to the 2020 HCP to update the 1995 HCP. The learning process to improve future decisions should be applied to results of the 1995 HCP monitoring and new data about the Reserve and used in the development of the 2020 HCP. This</p>	<p>The Amended HCP describes the adaptive management and monitoring program in Section 6.3.3. Refer also to response to A.51-91.</p>

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	<p>thought process should be clearly described and in the 2020 HCP, thus connecting what was learned from the 1995 HCP to the modifications in the 2020 HCP. We request that this process be clearly described and suggest that tables be used to show this process (i.e., what did the 1995 HCP say, what was implemented, what were the results, what adaptive management was implemented because of monitoring results, what were those results, and what is being changed in the 2020 HCP, if anything, because of these lessons learned.</p> <p>The HCP Handbook also emphasizes the need to “clearly explain the chain of logic” in the decision-making process. Because the HCP is part of the decision-making process, we believe the HCP should clearly explain its chain of logic. We found this missing from much of the HCP. We found no “chain of logic” or “connecting the dots” in the 2020 HCP that linked the results from implementation of the 1995 HCP to what is proposed in the 2020 HCP. For example, the 1995 HCP committed to installing tortoise fencing. The 2020 HCP says these installations are considered complete. However, there are documented tortoise mortalities from vehicles in Snow Canyon as recently as spring 2020 because these roads are not fenced. We would conclude that ongoing but preventable mortality would be a threat that the HCP would address by implementing management actions and monitoring to assess its effectiveness (e.g., constructing tortoise exclusion fencing and shade structures along this road would be appropriate or should, as a minimum, be considered and therefore mentioned in the 2020 HCP). Please add this chain of logic to the 2020 HCP. As another example, to provide continuity, between the goals and objectives in the two HCPs, the one goal and four objectives of the 1995 HCP should be stated, the goals and objectives of the 2020 HCP stated, and information provided that explain the changes.</p>	

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A.51-198	<p>HCP 171 66 6.2.1 Because this is an amended HCP, the document should include the history of the 1995 HCP implementation and information on its effectiveness. To do this the 2020 HCP would provide information on the status/population density of the tortoise in the Reserve in 1995 and its numbers now. It would describe the threats to the tortoise in the Reserve that were identified in 1995 HCP and the current threats. Using these data, it would display the 1995 biological goals, objectives, and conservation actions to contribute to the recovery of the tortoise and analyze which conservation actions worked, which ones did not, and why. If tortoise densities and numbers increased since 1995 in the Reserve and threats remained the same, then the biological goals and objectives and conservation actions could remain the same. If tortoise densities and numbers decreased, then the biological goals and objectives and conservation actions would need to change as the 1995 HCP was not successful in its mission. To clearly and concisely show this information and its chain of logic/connecting the dots, we strongly request that the amended 2020 HCP be revised and include this information in a table.</p>	<p>Table 15 in the Amended HCP describes Washington County and partner conservation accomplishments. Refer also to response to A.51-91.</p>

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A.51-199	<p>HCP 171 66 6.2.1 Implementing the HCP is a scientific process. The HCP should be developed using the best available scientific information. As it is implemented, there is monitoring to determine if the biological goals and objectives are being met. If they are not, the HCP requires that adaptive management be implemented to modify the conservation actions, so the biological goals and objectives are met. This process is designed to provide efficient use of funds and accomplish the biological goals and objectives.</p> <p>We contend the 2020 HCP is emphasizing the conservation actions it completed, especially with respect to habitat acquisition. It has not provided monitoring information that shows that the biological goals and objectives are being met; in fact, declining tortoise numbers and densities in the Reserve 1996 to 2019 show they are not being met. This information indicates that adaptive management is required, that is, the HCP needs to be revised substantially so that tortoise numbers and densities are increasing as development and loss of tortoises from this development occurs.</p> <p>From the lessons learned from implementing the 1995 HCP, we believe the biological goals for the tortoise should include improving tortoise demographics in the Reserve (e.g., increase tortoise numbers and densities, demonstrate reproduction and recruitment on a regular basis from data on non-adult size classes, and demonstrate a decrease in mortality and disease); (2) improve connectivity (e.g., between tortoises within the Reserve, within the UVRU, and between the UVRU and Northeast Mojave Recovery Unit); and (3) substantially reduce major threats to the tortoise in the Reserve (e.g., currently these would be nutrition connected to invasive non-native plants connected to fire, predation, etc.). Continuing to manage the Reserve for the benefit of the tortoise should be the overall mission. The threats under the third goal may change during the 25-year implementation of the ITP so this would have a strong adaptive management component. Continuing with land acquisition fits under Goal 2.</p>	<p>The Amended HCP describes the adaptive management and monitoring program in Section 6.3.3. Refer also to responses to A.51-101 and A.51-91.</p>

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A.51-200	<p>HCP 171 66 6.2.1 Conspicuously absent from the 2020 biological goals and objectives but needed because of scientific data on the UVRRU and local newspaper articles (recent ones include St. George News May 26, 2019; May 30, 2019, October 25, 2019) are substantially improving tortoise nutrition; reducing predation, especially predation from human-subsidized sources, and substantially increasing fire management actions to include fire prevention; fire suppression actions to respond to and fight fires quickly; and habitat restoration following each fire. Appendix D of the 2020 HCP says (page D-2) “In 2018, wildfire continues to be one of the greatest threats to tortoise habitat. Until non-native invasive plant species are severely reduced in/near the Reserve and human-caused fires are curtailed, fire will continue to be a part of the Reserve’s future.” This serious threat to the MDT should be addressed in the HCP with appropriate biological goals and objectives, conservation actions, effectiveness monitoring, and adaptive management.</p>	<p>The Amended HCP describes the adaptive management and monitoring program in Section 6.3.3. Refer also to response to A.51-91.</p>
A.51-201	<p>HCP 171 66 6.2.1 As the St. George area grows, the human-provided subsidies for predators of the tortoise will grow. This will likely result (as it has elsewhere in the range of the MDT) in increased predator population sizes (e.g., common raven, coyote, feral and domestic dog, etc.) and subsequent increased predation on the MDT. The HCP should include a plan to monitor tortoise predation and predators and implement effective actions to substantially reduce this predation. Improving tortoise nutrition should be a biological goal with objectives and conservation actions implemented to improve the availability of native nutritious plants for tortoises in the Reserve. This goal is closely tied to successful management of non-native invasive plant species that exclude native plant species, have lower nutritional values for tortoises, and provide a sustained fuel source for fires in an ecosystem with native plants not adapted to surviving fires. Thus, improving nutrition for the MDT is connected to reducing fuel loads for fires in the Reserve.</p>	<p>The Amended HCP describes the adaptive management and monitoring program in Section 6.3.3. Refer also to response to A.51-91.</p>

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A.51-202	<p>HCP 172 66 6.2.1</p> <p>Comment: Modifying the 1995 goals and objectives and reasons for the modifications: Because the 2020 HCP wants to modify the goals of the 1995 HCP, the reasons for these modifications should be presented (e.g., information on the status of the UVRU tortoise population/status of the species, threats [including climate change], changed/new management needs for the species/habitat because of new information [including effectiveness monitoring implemented under the HCP], and/or success in achieving a previously stated goal. These modifications should be clearly identified, and reasons provided to support why it is being changed. Why the modifications are needed should be straightforward as updated information on status of the UVRU population and species, threats (including climate change), management needs for the species/habitat should have been provided under Section 3.2 (including all its subsections) and Section 4 of the 2020 HCP. We agree that the goals and objectives need to be modified. Those in the 2020 HCP should be about the current and perceived future needs of the MDT based on current data. The goals and objectives should not be a slight tweaking of the 1995 goals and objectives as much data has been collected to demonstrate that the acquisition of habitat (the primary goal of the 1995 HCP) is not effective in managing for the tortoise,</p>	<p>The 2020 HCP is an amendment and does not need to carry forward all biological goals and objectives from the 1995 HCP. Refer also to response to A.51-91.</p>

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A.51-203	<p>HCP 173 66 6.1.2</p> <p>Text: We note on page 66 that the Amended HCP “...responds to the proposed Northern Corridor as a Changed Circumstance affecting the conservation value of the Reserve and provides for substantial new conservation actions in response” and then on page 67 lists nine goals and objectives identified in 1995. Three of these include (emphasis added): (1) managing the acquired lands within the Reserve in a manner consistent with the conservation missions of the BLM and UDNR, with enforcement of associated land use restrictions; (2) removing land uses from the Reserve that are not Covered Activities and that impact the MDT, such as land development, grazing, off-road use, mining, and others; and (3) conserving, primarily through the establishment and management of the Reserve, the ecological value and biological diversity of the Mojave Desert landscape that provides food and cover for Considered Species and other native wildlife and plants. On page 67, there is then the statement that these goals and objectives are “...carried forward in the Amended HCP.”</p> <p>Comment: This is simply not true. Although we understand that elevated management in Zone 6 is intended to offset impacts of the Northern Corridor, these three goals and objectives are (1) specifically and only relevant to the Reserve as it was established in 1996, not as it would be compromised in 2020; and (2) when these goals and objectives were identified in 1995, they were considered in the absence of the Northern Corridor. Therefore, these three goals and objectives ARE NOT being carried forward, and regardless of any extraneous protection provided to Zone 6, the integrity of the Reserve will be compromised. Furthermore, given tortoise declines of up to 41% within the Reserve, we believe that the Amended HCP is negligent in its failure to reconsider the goals to address these losses and other impacts identified herein (e.g., with regards to predation, poaching, invasive weeds, fire, etc.).</p>	<p>The 2020 HCP is an amendment and does not need to carry forward all biological goals and objectives from the 1995 HCP.</p> <p>Refer also to response to A.51-91.</p>

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A.51-204	<p>HCP 174 66 6.1.2</p> <p>Text: The 2020 HCP says objectives of the 2020 HCP are “- meeting substantively the recovery recommendations for establishing the Upper Virgin River DWMA (i.e., the Reserve) contemplated in the 1994 and 2011 MDT Recovery Plans; - placing most lands within the Reserve under BLM or UDNR ownership, subject to willing partnerships with non-federal landowners; - managing the acquired lands within the Reserve in a manner consistent with the conservation missions of the BLM and UDNR, with enforcement of associated land use restrictions.”</p> <p>Comment: The Permittee has no authority over BLM and UDNR and will have no way of ensuring that the management of these lands is consistent with the management of the Recovery Plan, which should be addressed in the newly-modified HCP.</p>	<p>Washington County has collaborated with the HCP Partners, including State and Federal government agencies, throughout the development of the Amended HCP. Participating HCP Partners have agreed to accept responsibilities to assist with the implementation of the Washington County HCP, including their willingness to be signatories to the Implementing Agreement.</p> <p>The biological goals of the HCP are shared by the HCP Partners, including the Federal and State resource management agencies, and is consistent with their missions.</p> <p>Refer also to response to A.51-91.</p>
A.51-205	<p>HCP 175 66-67 6.1.2</p> <p>Comment: Please clearly label any new Biological Goals and Objectives for the 2020 HCP as those being developed for the 2020 HCP.</p>	<p>The 2020 HCP is an amendment and does not need to carry forward all biological goals and objectives from the 1995 HCP. The biological goals and objectives of the 2020 HCP stand on their own and do not need to be identified as new or changed as compared to the 1995 HCP.</p>

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A.51-206	<p>HCP 176 66 &amp; 84-85 6.1.2</p> <p>Text: “Placing most lands within the Reserve under BLM or UDNR ownership, subject to willing partnerships with non-federal landowners;” Comment: This sentence needs to be modified. The BLM has not demonstrated that it is a worthy manager for the conservation of the Mojave desert tortoise. The status and trend of the MDT in TCAs throughout most of the range of the MDT are below viability and have shown a downward trend since the current population sampling protocol was initiated in the early 2000’s. Please see our Attachment D. This decline is especially noteworthy in California where the BLM manages the California Desert Conservation Area (CDCA). In establishing the CDCA, Congress declared that–</p> <p>(1) the California desert contains historical, scenic, archeological, environmental, biological, cultural, scientific, educational, recreational, and economic resources that are uniquely located adjacent to an area of large population;</p> <p>(2) the California desert environment is a total ecosystem that is extremely fragile, easily scarred, and slowly healed;</p> <p>(3) the California desert environment and its resources, including certain rare and endangered species of wildlife, plants, and fishes, and numerous archeological and historic sites, are seriously threatened by air pollution, inadequate Federal management authority, and pressures of increased use, particularly recreational use, which are certain to intensify because of the rapidly growing population of southern California;</p> <p>(4) the use of all California desert resources can and should be provided for in a multiple use and sustained yield management plan to conserve these resources for future generations” (emphasis added).</p> <p>BLM has changed their RMPs several times in the CDCA to allow for more development and human use in TCAs that adversely impact tortoises/tortoise habitats despite declining population numbers, densities, and low recruitment of MDTs. BLM can do the same thing for the RMP for the RCNCA. The RMP and Public Law 111-11 are not assurances that the RCNCA will be managed for the benefit of the tortoise and the language in the 2020 HCP should reflect this lack of assurance. That the pertinent RMP(s) will likely be modified to accommodate the Northern Corridor is evidence of this assertion.</p>	<p>Participating HCP Partners have agreed to accept responsibilities to assist with the implementation of the Washington County HCP.</p> <p>Since the Draft EIS was published, the County, the BLM, and UDOT have added measures to the Amended HCP and EIS to address these concerns.</p> <p>Refer also to responses to A.51-204 and A.51-101.</p>

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A.51-207	<p>HCP 176 66 &amp; 84-85 6.1.2 In addition, the 2020 HCP says, “The overarching intent of the Washington County HCP is to create a conservation program, compatible with the County’s community goals and objectives, for conserving the Upper Virgin River population of MDT in its native habitat in perpetuity.” We contend that until there is a legal way to require BLM to retain and manage lands set aside, purchased, or exchanged for conservation purposes and in perpetuity, these lands should be held by another entity and a permanent conservation easement placed on them. Please modify this sentence so it specifies that only an entity that can legally ensure that lands acquired for conservation purposes (e.g., managed for the MDT) will be managed for those purposes in perpetuity would be able to own these lands.</p>	<p>Participating HCP Partners, including the BLM, have agreed to accept responsibilities to assist with the implementation of the Washington County HCP. Refer also to responses to A.51-204 and A.51-91.</p>
A.51-208	<p>HCP 177 66 6.1.2 Text: “Managing the acquired lands within the Reserve in a manner consistent with the conservation missions of the BLM and UDNR, with enforcement of associated land use restrictions;” Comment: First, please change the first part to say, “managing and restoring the acquired lands...” Second, once these lands are owned by BLM or UDWR, Washington County has no control over their management. What legal mechanism is Washington County going to implement to ensure these lands are managed for the tortoise and in perpetuity? Please address this issue in the HCP. And provide assurances. Third, BLM does not have a conservation mission. It has a “multiple use” mission even in an NCA as they must still comply with FLMPA. This language needs to be corrected.</p>	<p>Refer to response to A.51-204.</p>

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A.51-209	<p>HCP 178 66 6.1.2 Text: “Incentivizing the siting of Covered Activities in areas that are not MDT habitat or that are poor-quality MDT habitat through land use planning, impact fees, and environmental education;” Comment: The HCP should not limit its potential source of funding to one source. If another recession occurs and development is severely curtailed, who will pay for the management, monitoring, and adaptive management requirements of the HCP? In addition, activities that have resulted in increased amounts of incidental take in the Reserve indicate there is a need for greater law enforcement in the Reserve. Please change this to read “...through land use planning, impact fees, environmental education, and law enforcement;”</p>	<p>The Amended HCP includes the following statement that demonstrates how fees could increase or be added if deemed necessary to ensure compliance: “Conversely, the County, largely through its Municipal Partners, will increase the amount of the fee if the balance of the HCP Trust Fund is not sufficient to cover the inflation-adjusted average annual budget estimate for the following year.” (Washington County 2020, see page ix and 125). Under the previous term of the ITP, the County overspent their projected costs while remaining below the authorized take amount. Conservation activities were accomplished according to the HCP and with HCP Partners as possible and the intent to continue with these commitments is demonstrated through ongoing implementation of conservation activities as part of the HCP today. The funding that is brought into the current proposed HCP represents additional overage of funds in addition to other funds made available into the future. These funding assurances demonstrates the County’s commitment to implement the conservation program proposed in the County’s Application. Refer also to response to A.51-91.</p>

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A.51-210	<p>HCP 179 66 6.1.2</p> <p>Comment: We found no commitment to manage the lands in the Reserve for the benefit of the MDT in perpetuity. Please add this as a goal especially given the 2020 HCP’s statement on page 66 “The overarching intent of the Washington County HCP is to create a conservation program, compatible with the County’s community goals and objectives, for conserving the Upper Virgin River population of MDT in its native habitat in perpetuity.” In addition, the development is permanent so the management of the lands for the tortoise and management of the tortoise must also be permanent. The mitigation commitment is not for the term of the permit; it is in perpetuity (in spite of the current intent to redefine “perpetuity” so as to accommodate the Northern Corridor). The term of the permit only limits the time during which incidental take as a result of a Covered Activity is lawful.</p>	<p>In addition, the Amended HCP describes the adaptive management and monitoring program in Section 6.3.3.</p> <p>Refer also to response to A.51-91.</p>
A.51-211	<p>HCP 180 66-67 69-77 6.1.2</p> <p>Comment: The USFWS’ 2016 HCP Handbook says, “we do have a few rules that must be met. Applicants must minimize and mitigate the effects of their actions to the maximum extent practicable and the measures must be manageable and enforceable. Also, the applicant must clearly articulate the biological goals and objectives in the HCP with measurable success criteria.” In reading Section 6 of the 2020 HCP, we did not find the document adhered to these rules. We are unsure how each completed and ongoing conservation action contributed to which biological objective and goal of the 1995 HCP and whether the success criteria were met. We are unsure how each ongoing conservation action contributes to which biological objective and goal of the 1995 HCP and the 2020 HCP. Absent this information, we cannot determine whether the HCP has made measurable success toward recovery of the MDT in the Plan Area. From the UDWR reports, it appears that tortoise densities have declined markedly since the ITP was implemented. Please provide this information in the 2020 HCP and show how the implementation of the HCP has improved the status of the MDT in 2020.</p>	<p>The USFWS will determine if the HCP, to the maximum extent practicable, minimizes and mitigates the impacts of take in a Findings document prior to the USFWS decision of whether to issue an ITP.</p> <p>Refer also to response to A.51-91.</p>

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A.51-212	<p>HCP 181 67 6.2.1</p> <p>Text: “Translocating healthy MDT individuals from areas affected by Covered Activities to the Reserve, thereby minimizing the impacts of the Covered Activities on the MDT and expanding the protected MDT population;”</p> <p>Comment: This wording says that translocated tortoises may be released anywhere in the Reserve. We do not think this is the intent nor is it biologically appropriate or sound management. For example, if the Northern Corridor were developed, would tortoises be placed in impaired habitats south of the new freeway? Please modify wording in the HCP so that only areas designated for translocated tortoises receive them.</p>	<p>Refer to response to A.51-91.</p>
A.51-213	<p>HCP 182 67 6.2.1</p> <p>Text: “Monitoring MDT population trends and MDT threats in the Permit Area to support adaptive management actions.”</p> <p>Comment: Please change this to say, “monitoring MDT population trends and MDT threats in the Plan Area and to implement adaptive management actions promptly based on monitoring results.” We are not sure why monitoring would be limited to the Permit Area. It should include the larger Plan Area.</p>	<p>The Amended HCP describes the adaptive management and monitoring program in Section 6.3.3. Refer also to response to A.51-91.</p>
A.51-214	<p>HCP 183 68 6.2.1 13</p> <p>Text: We appreciate the inclusion of this table (USFWS 2014). The 2020 HCP says, “The DTMOG and the local Recovery Implementation Teams reexamine these priorities on an annual basis to develop specific recovery projects.”</p> <p>Comment: However, the recent fires in the Reserve and history of large fires point out the need to revise this 2014 list and implement these recovery projects. We would assert that “Fire management planning and implementation” should be implemented concurrently with habitat restoration. Fire management planning should include implementation of actions that effectively reduce the fuels provided by nonnative plant species that carry fires. This project should be a high priority.</p>	<p>The Amended HCP describes the adaptive management and monitoring program, which would include fire management response, in Section 6.3.3. The EIS further describes fire occurrences and management responses on BLM-administered lands in the Reserve. Refer also to response to A.51-91.</p>

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A.51-215	<p>HCP 184 68 6.2.1 13</p> <p>Comment: We found no information in Section 6.2.1 that ties the biological goals and objectives to the conservation actions, or provides information on whether they have been implemented, would continue to be implemented, or are proposed for implementation. Without this stepdown accounting, it is not possible to determine whether the conservation actions are likely to achieve the biological objectives and biological goals. Please provide a table or list of the biological goals with their objectives and conservation actions under each.</p>	Refer to response to A.51-91.
A.51-216	<p>HCP 185 66-68 6.1.2</p> <p>Text: On page 6 of the 2020 HCP (Section 1.3 Amended Habitat Conservation Plan), the document says, “This Amended HCP makes certain changes to facilitate the continued implementation of this recovery-focused HCP for the Renewed/Amended ITP Term, including ...addressing changes in regulation and applicable policy guidance related to HCPs, such as the No Surprises rule (63 Federal Register [FR] 8859), Surrogate Rule (80 FR 26832), and the HCP Handbook.” On page 9 (Section 1.5 Regulatory Framework) the 2020 HCP says, “The HCP Handbook provides guidance to ITP applicants and the USFWS regarding the preparation of HCPs.”</p> <p>Comment: However, Section 6.1.2 of the 2020 HCP does not seem to be following the policy guidance in the USFWS’ 2016 Habitat Conservation Handbook regarding identifying appropriate biological, goals, SMART (specific, measurable, achievable, result-oriented, and time-fixed) biological objectives, and conservation actions (Sections 9.1, 9.2, and 9.3 of the Handbook.) The 2020 HCP has used the policy guidance from other sections of this Handbook to support changes it is proposing in the 2020 HCP. We affirm that Section 6.1.2 of the 2020 HCP should follow Section 9 of the 2016 HCP Handbook in the development of the biological goals and objectives and their relationship to each other. This relationship should be clearly demonstrated in the HCP.</p>	Refer to response to A.51-91.

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A.51-217	<p>HCP 186 66-68 6.1.2</p> <p>Comment: The biological goals and objectives in the 2020 HCP should demonstrate how they are considering climate change given the 25-year term of the permit. The 2016 HCP Handbook stresses the importance of considering climate change in the development of biological goals and objectives as it has a section on this topic (Section 9.2.2 Considering Climate Change Effects in the Development of Goals and Objectives). We request that the 2020 HCP explain how it considered climate change in the development of its biological goals and objectives.</p>	<p>The USFWS has considered climate change in the EIS and would consider the effects of climate change in their Biological Opinions and Findings document associated with the Northern Corridor and HCP.</p> <p>Refer also to response to A.51-91.</p>
A.51-218	<p>HCP 187 69-72 6.2.1</p> <p>Comment: This section is confusing. It is titled “Conservation Actions” but it appears to be more of a financial accounting. Please add a table of the completed conservation actions under each biological goal and objective from the 1995 HCP and a table of all the biological goals and corresponding biological objectives, conservation actions, and effectiveness monitoring that will be implemented in the 2020 HCP so we can determine what has been accomplished to attain the biological goals and objectives of the 1995 HCP and how they have changed given new information the status of and threats to the MDT in the UVRU. This is a reiteration of Comment 171 above.</p>	<p>Chapter 6.2 of the Amended HCP contains a description of the conservation actions taken during the Original ITP Term. The 2020 HCP is an amendment and does not need to carry forward all biological goals and objectives from the 1995 HCP.</p>
A.51-219	<p>HCP 188 69-71 6.2.1</p> <p>Comment: Maximum extent practicable – The 2016 HCP Handbook says, “the applicant must show that their HCP will minimize and mitigate the impacts of the taking to the maximum extent practicable because either:</p> <ul style="list-style-type: none"> <li>• The combination of minimization and mitigation in the HCP leaves no remaining impacts of the taking on the species that could be further mitigated or minimized, that is all impacts will be fully offset.</li> <li>OR</li> <li>• If the applicant cannot fully offset the impacts of the taking, they must demonstrate that it is not practicable to carry out any additional minimization or mitigation.”</li> </ul> <p>The Handbook says “to determine that the proposed HCP minimization and mitigation measures meet the “maximum extent practicable” standard, we must be</p>	<p>Refer to response to A.51-183.</p>

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	<p>able to define “impacts of the taking” for the particular situation we are analyzing. Consider the impacts of the taking in a manner that is biologically sound and based on the best available science. Some examples of fully offsetting impacts include:</p> <p>Habitat example:</p> <ul style="list-style-type: none"> <li>• Loss: 100 acres of habitat type x are permanently lost.</li> <li>• Measure to offset impacts: restore and protect in perpetuity (at least) 100 acres of habitat type x that is of (at least) equal biological value to the covered species before impacts occur.</li> <li>• Key questions: what value did the habitat lost have to the covered species? What value does the replacement habitat have to covered species (e.g., did the replacement habitat provide for the same life stage of the covered species as that lost)? Does the replacement ratio need to be greater than 1:1 to compensate for the lag time between impacts and full eco-function of the replacement habitat, to allow for restoration uncertainties, or is consistent with previously-defined recovery objectives? Is the identified conservation habitat likely to remain suitable in reasonably anticipated future climate scenarios? Is there more value to the species by replacing the habitat that is lost with a different habitat type (e.g. breeding vs. foraging habitat)?”</li> </ul> <p>The above questions need to be answered in the HCP.</p> <p>“Loss of individuals example:</p> <ul style="list-style-type: none"> <li>• Loss: 100 individuals will be taken.</li> <li>• Measure to offset impacts: measures should be implemented to fully offset the effects to the population or species from the loss of those 100 individuals (e.g., removal of non-native species, restoration, etc.). Conservation measures could affect the population by increasing carrying capacity (through improving habitat) or increasing population growth rate (by reducing threats) for instance.</li> <li>• Key questions: what life stage of individuals would be lost? In a long-lived species, loss of adults may have a much higher effect on the species or population than loss of juveniles, which may require actions to replace the loss of 100 adults with 400 juveniles, since many juveniles will die before reaching the adult (reproductive) stage. What is the value to the population of the life stages that would be lost? What is the significance to the population or species to lose 100 individuals? Is it an important population loss? What is the expected reproductive value that could be lost before being replaced? Is the lost reproductive value factored into the mitigation requirements?”</li> </ul> <p>The above questions need to be answered in the HCP.</p>	

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A.51-220	<p>HCP 188 69-71</p> <p>6.2.1 Text: In the 2020 HCP, page 99 says “6.4 IMPACTS OF TAKE FULLY OFFSET The impacts of take authorized with the Original ITP and reauthorized with the Extended/Amended ITP are fully offset by the conservation program of the 1995 HCP (see Chapter 6.2.1). This conservation program is carried forward and expanded in this Amended HCP.” Section 6.2.1 says, “The 1995 HCP included an administrative provision whereby the funding or completion of certain conservation measures ‘released’ a certain amount of the incidental take authorized by the ITP, a provision referred to in the 1995 HCP as ‘incremental implementation’ (1995 HCP:114, 115). This administrative accounting tracked the implementation of those actions required of the County to minimize and mitigate the impacts of the authorized take and to ensure that pace of take remained in line with the implementation of the recovery-focused actions of the BLM related to the agency’s commitment to acquire lands within the Reserve.” It also says, “The incidental take areas that were subject to incremental implementation under the 1995 HCP totaled 12,264 acres, or the extent of occupied MDT habitat mapped on non-federal lands outside of the Reserve circa 1995 (see Chapter 3.2.3.2.1. Incremental implementation did not apply to authorized take associated with other Covered Activities.”</p> <p>Comment: We assert that this section does not analyze or explain how the HCP minimization and mitigation measures in the 1995 HCP now meet the “maximum extent practicable” standard, as we found no analysis that defined “impacts of the taking” for the number of tortoises authorized in the ITP for specific geographic area. Because the Applicant wants to use habitat as a surrogate for the incidental take of tortoises in the 2020 HCP, we were unable to find in the HCP a description using the best scientific information of how the impacts of incidental take of tortoises would be converted to impacts to tortoise habitat. In addition, we assert that incidental take associated with all Covered Activities should be minimized and mitigated to the maximum extent practicable in the 2020 HCP, which was not the case in the 1995 HCP.</p> <p>We were unable to find these analyses in the 2020 HCP. We request that they be added to the HCP using the incidental take that was authorized in the 1996 ITP and adding the incidental take now requested in the 2020 HCP.</p>	<p>Refer to responses to A.51-183, A.51-91, and A.05-2.</p>

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A.51-221	<p>HCP 189 71-77 6.2.2 15</p> <p>Comment: It is not possible to determine accurately from this table what conservations actions were implemented for which biological goals and objectives under the 1995 HCP. Similar to Comments 171 and 187 above, please provide a stepdown accounting of the goals, then objectives, then conservation actions that have been taken so the reader is able to determine the progress made toward meeting the biological goals. The accomplishments may be impressive, but we cannot tell to what extent (and particularly, what is missing) because of the manner in which the information is presented.</p>	<p>Refer to responses to A.51-91 and A.51-94.</p>
A.51-222	<p>HCP 190 78 6.3.1</p> <p>Text: “This Amended HCP reaffirms that Reserve acquisitions and long-term management are not the obligations of the County.”</p> <p>Comment: This flat statement needs to be justified with more discussion in the Final HCP. Again, it seems as if the County is minimally participating in the conservation actions of a plan that results in maximum benefits to the County in terms of its future development. We believe that this mentality may be one reason the County has stockpiled more than seven million dollars in HCP fees when there have been many outstanding conservation measures that should have been implemented (e.g., culverts under Cottonwood Trail, development of a fire management plan, acquisition of private and SITLA lands within the actual Reserve, curtailing raven depredation, increased law enforcement to avoid fires on holiday weekends, addressing the excessive loss of 146 tortoises to crushing along roads and trails within the Reserve, etc.).</p>	<p>Refer to responses to A.47-2, A.51-91, and A.51-94.</p>

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A.51-223	<p>HCP 191 78 6.3.1</p> <p>Text: “The 1995 Reserve boundary met substantively the recovery recommendations for establishing the Upper Virgin River DWMA contemplated in the 1994 and 2011 MDT Recovery Plans (USFWS 1994a, 2011; see Chapter 6.1.2).”</p> <p>Comment: The above statement may (or may not) have proven true in 1995 and perhaps in 2020 prior to reissuance of the ITP, but facilitation of the Northern Corridor through the Reserve by the Amended HCP introduces variables such that this statement is no longer true, which the Amended HCP needs to address. For example, the Reserve would no longer be roadless or inaccessible to humans as recommended in the 1994 Recovery Plan.</p>	Refer to response to A.51-93.
A.51-224	<p>HCP 192 78 6.3.1</p> <p>Text: “The establishment of the Reserve is the primary conservation measure of the 1995 HCP. The 1995 Reserve boundary met substantively the recovery recommendations for establishing the Upper Virgin River DWMA contemplated in the 1994 and 2011 MDT Recovery Plans (USFWS 1994a, 2011; see Chapter 6.1.2). The 1994 MDT Recovery Plan describes the DWMA as those areas “in which recovery actions will be implemented to provide for the long-term persistence of viable desert tortoise populations and the ecosystems upon which they depend.”</p> <p>Comment: We argue that establishing a boundary does not establish a Reserve. A Reserve is those areas in which recovery actions will be implemented to provide the long-term persistence of viable desert tortoise populations and ecosystems upon which they depend. Both the acquisition of lands and implementation of effective management of those lands are needed to substantively meet the 1994 Recovery Plan recommendations for the UVRU DWMA. We also argue that only establishing one reserve in the UVRU is not preferred as it does not assure long-term persistence of the MDT without intensive management of that land. Please see the Recovery Plan for the Desert Tortoise Mojave Population (USFWS 1994 - pages 31-61, F7 – F9) and Proposed Desert Wildlife Management Areas for Recovery of the Mojave Population of the Desert Tortoise - A Companion Document to the Desert Tortoise Recovery Plan Providing Detailed Information on Each of the 14 Proposed Desert Wildlife Management Areas (USFWS 1994 - pages 23-27).</p>	Refer to response to A.51-91.

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A.51-225	<p>HCP 193 83 6.3.1.2 Text: “Expanding on the 1995 HCP, this Amended HCP anticipates the use of the following mechanisms for acquiring private lands and SITLA-owned lands within the Reserve:</p> <ul style="list-style-type: none"> <li>• Exchanges with BLM lands outside the Reserve boundary, on a case-by-case basis with individual landowners;</li> <li>• Fee simple land purchases that may be supported by monies from the federal Land and Water Conservation Fund, USFWS Cooperative Endangered Species Conservation Fund (also known as ESA Section 6 funds), the sale of BLM-managed lands (as provided for under the 2009 Omnibus Public Land Management Act), Utah’s Endangered Species Mitigation Fund (the LeRay McAllister Critical Lands Conservation Fund administered by the Utah Governor’s Office of Management and Budget), or other available sources;</li> <li>• Purchases of conservation easements that may be supported by monies from the federal Land and Water Conservation Fund, USFWS Cooperative Endangered Species Conservation Fund, the sale of BLM-managed lands (as provided for under the 2009 Omnibus Public Land Management Act), or other available sources; or</li> <li>• Donations of fee simple interest or conservation easements.</li> </ul> <p>This Amended HCP establishes that conservation easements are an acceptable tool for achieving Reserve acquisitions. The County and the HCP Partners anticipate that conservation easements associated with Reserve acquisitions should be in perpetuity.”</p> <p>Comment: The conservation easement should not be anticipated to be in perpetuity, it must be required. Throughout the HCP we found non-committal language for conservation actions in several places. It implies to the USFWS and the reader that this should happen but makes no commitment to do it. This is not acceptable. The language in the 2020 HCP should be clear and concise. It should not be suggestive. Please change this language to say that all conservation easements will be in perpetuity.</p> <p>A conservation easement in perpetuity would be an acceptable tool, as would the other methods described above, if it also means the following will occur: All surface and subsurface rights (e.g., mineral, water, energy, etc.) will be relinquished by the landowner. In addition, in Utah, the status on conservation easement says, “The existence of a conservation easement may not defeat or interfere with the otherwise proper exercise of eminent domain under Title 78B, Chapter 6, Part 5, Eminent Domain.” (Utah Code, Chapter 18, Land Conservation Easement Act, 57-18-1).”</p>	Refer to response to A.51-91.

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	<p>Consequently, a conservation easement in perpetuity is not a guarantee that it will be in perpetuity, as it is not immune to being overturned by a local or state government. To be guaranteed in perpetuity, the conservation easement must include a document from the local and state government that has jurisdiction over the property that they are relinquishing their exercise of eminent domain on this property.</p>	
A.51-226	<p>HCP 194 83 6.3.1.2 Text: “Expanding on the 1995 HCP, this Amended HCP anticipates the use of the following mechanisms for acquiring private lands and SITLA-owned lands within the Reserve:” Comment: Our question is what were the methods identified in the 1995 HCP and what changes/additions are being made in the amended 2020 HCP? Please provide this information in the HCP. Again, this is an example of the 2020 HCP not providing complete information and a clear history of what the 1995 HCP says and what the 2020 HCP says. Because this is an amended HCP, this history and these changes must be clearly presented so the USFWS and public know what changes are being proposed and how that relates to accomplishing the biological goals and objectives of the HCP with respect to the status and trend of the tortoise since 1995 and changes in threats (e.g., new threats previously not identified, increase in frequency, duration, and/or location/occurrence of threats) from those identified in the 1995 HCP to those in the 2020 HCP.</p>	Refer to response to A.51-91.
A.51-227	<p>HCP 195 86-87 6.3.2.1 12 Comment: Page 3-36 of Volume 2 of the DEIS reports that 146 injured or dead tortoises have been found inside the Reserve. We ask that Figure 12 be amended or a new figure created that shows the locations of these injured and dead tortoises. We ask that the final version of the Amended HCP be modified to indicate how the HCP partners intend to curtail this impact, particularly if the Northern Corridor is constructed. Similarly, we expect that there will be a commitment from HCP partners to monitor for and report injured and dead tortoises within Zone 6, if it is established as a satellite reserve, which has not been identified in the Draft EIS.</p>	Refer to responses to A.51-91 and A.51-96.

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A.51-228	<p>HCP 196 90 6.3.2.2 6.3.2.3</p> <p>Comment: As expressed elsewhere, we are concerned about the perpetuation of competitive vehicle events in the Zone 6 area, should it become a satellite reserve. We ask that the Amended HCP specifically address this concern and require educational materials that are directed towards the non-participant spectators visiting the areas before, during, and after these events. With regards to law enforcement (Section 6.3.2.2), we request that the Amended HCP be modified to require elevated law enforcement by the appropriate agencies during such authorized events, particularly in Zone 6, should it become a satellite reserve (see Comment 83 for additional details).</p>	<p>Competitive recreation events are a Covered Activity in Zone 6 on non-Federal lands. The County does not have the authority to authorize events on BLM-administered, therefore, when the competitive recreation events occur on Federal lands, the events are not considered Covered Activities under the HCP/ITP.</p> <p>Refer also to response to A.51-66.</p> <p>The BLM continues to employ all available resources to enforce the current laws, regulations, and policies on public lands within the Reserve. The County has committed to increased law enforcement presence in Zone 6 in the HCP if changed circumstance of the Northern Corridor is triggered.</p>
A.51-229	<p>HCP 197 93 6.3.2.4</p> <p>Comment: Because translocation of MDT is a Covered Activity, the HCP needs to provide information on where tortoises would be translocated to and how this translocation would affect the resident tortoises with respect to competition for food resources, mates, home range, cover sites, and social order. "Appendix E Translocation Management Plan," which should have contained some of this information is only a title page as a placeholder. Please include this needed information to assess incidental take from Covered Activities.</p>	<p>Translocation is not a covered activity in the Amended HCP. The USFWS authorizes take associated with translocation activities through other means, including a Section 6 agreement with the State.</p> <p>The County and the HCP Partners would continue to implement current translocation procedures until a new Translocation Management Plan is prepared through the adaptive management process.</p>

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A.51-230	<p>HCP 198 66 93 6.3.2.5</p> <p>Text: "...responds to the proposed Northern Corridor as a Changed Circumstance affecting the conservation value of the Reserve and provides for substantial new conservation actions in response."</p> <p>Comment: Given the above statement on page 66 of the Red Cliffs Reserve and the current intent to manage Zone 6 as part of the Reserve, should Section 6.3.2.5 be amended to document intended actions within Zone 6? In other words, the Amended HCP seeks to redefine what is meant by "Reserve" to include Zone 6, so the statement that no additional actions are required "within the Reserve" may be misconstrued.</p>	<p>The HCP describes that if the Northern Corridor changed circumstance is triggered, then Zone 6 would become part of the Reserve and all applicable provisions would apply.</p>
A.51-231	<p>HCP 199 99 6.4</p> <p>Text: "The impacts of take authorized with the Original ITP and reauthorized with the Extended/Amended ITP are fully offset by the conservation program of the 1995 HCP (see Chapter 6.2.1). This conservation program is carried forward and expanded in this Amended HCP."</p> <p>Comment: The Council feels that the point has been made in numerous places elsewhere in our comments that the Amended HCP will not perpetuate the "successes" of the existing HCP; at worse, it facilitates, and at best, accommodates, development of the Northern Corridor, which substantially detracts from conservation within the Red Cliffs Desert Reserve. The reason for our redundancies, then, is to point out those places in the Amended HCP where the statements are often inaccurate, misleading, and/or presumptuous. For example, the above statement where our emphasis is added is blatantly false because the Amended HCP would facilitate/accommodate development of the Northern Corridor as a "Changed Circumstance." In this specific case, the Changed Circumstance substantially undermines the conservation program, which is not being "carried forward" in its present form and is certainly not "expanded." Therefore, in spite of our redundancies, we feel that the document authors need to modify the document to demonstrate that this Amended HCP cannot carry forward a conservation program that is substantially modified by development of a freeway through the actual Reserve plus the promised conservation in a satellite reserve.</p>	<p>Refer to responses to A.51-91 and A.05-2.</p>

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A.51-232	<p>HCP 200 100 6.4.1</p> <p>Text: “The 1995 HCP established an approximately 61,000-acre Reserve for the conservation of the MDT that is consistent with the lands identified as necessary for recovery in the MDT Recovery Plan.”</p> <p>Comment: Whereas the above statement may have been true in 1995, it is equally true that the 2020 Amended HCP undermines this established Reserve under the technicality of a “Changed Circumstance” and is no longer consistent with tortoise recovery. We feel that this and numerous other places in the Amended HCP serve more as a public relations piece than an actual scientific assessment of current management without a Northern Corridor and future management with the freeway through the Reserve. For example, the following question is never addressed in either the DEIS or the Amended HCP: “Would USFWS have issued the 1996 ITP had the Northern Corridor been identified as a Covered Activity inside the Reserve?” We think not. And now that tortoises have declined by more than 50% in five of the six Recovery Units and by 41% within the Reserve, we don’t think the freeway should be supported as a de facto part of the 2020 ITP reissuance either.</p>	<p>The 1995 HCP did not have the Northern Corridor as a Covered Activity and the USFWS made no decision relating to the Northern Corridor in 1996. The USFWS issued the 1996 ITP based on their analysis that the 1995 HCP met the permit issuance criteria contained in Section 10(a)(2)(B) of the ESA.</p> <p>For HCP and ITP renewals or amendments the USFWS requires updates to scientific information (including the noted declines in Mojave desert tortoise abundances and the 2020 wildfires) and consideration of new management strategies, where applicable, to ensure that all statutory and regulatory requirements are met. The USFWS is evaluating the HCP as a baseline condition including Red Cliffs Desert Reserve, and any conservation benefits that have been derived under the 1995 HCP and secondarily evaluating the entirety of the proposed project under the context of a changed circumstance addressing the Northern Corridor as it would impact the HCP conservation program. Any benefit derived under the previous HCP and consistent with the previous ITP is, by nature, included in this evaluation. Issuance, renewal, or amendment of new ITPs are considered independent from previous evaluations but in consideration of previous take and compliance by the applicant. The USFWS is required to show that the amended HCP still meets ITP issuance criteria (USFWS and NMFS 2016, p. 17-</p>

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		<p>6). The USFWS considers Section 10(a)(2)(A) of the ESA and its implementing regulations at 50 CFR 17.22 and 17.32, and the 2016 HCP Handbook (USFWS and NMFS 2016) as our most current regulations, policy, and standards for HCP and associated amendments. Refer also to response to A.51-91.</p>
A.51-233	<p>HCP 201 91 101 6.2.3.4 6.4.2 Comment: Please note on page 91 of the Amended HCP that the authors indicate that 3,754 acres have been repopulated in Zone 4, whereas page 101 indicates that 5,318 acres have been repopulated. Regardless of this discrepancy, since the Amended HCP indicates that these tortoises are not monitored after release, the authors do not know to what extent tortoises have dispersed within the fenced Zone 4 reserve and therefore cannot conclusively identify the number of acres repopulated. Are they clumped within a portion of Zone 4 or evenly distributed? In the absence of this distribution data, the extent of repopulation is speculative, and the number of repopulated acres should not be guessed at or lauded as one of the HCPs resounding successes.</p>	<p>This information was corrected by Washington County in the Amended HCP.</p>

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A.51-234	<p>HCP 202 66 6.1.1</p> <p>Comment: On page 66, we find it noteworthy that in spite of the following sentence, “The County also intends for this Amended HCP to respond to the proposed Northern Corridor,” that the Northern Corridor is not mentioned again until page 109, when development of the freeway is referred to as a foregone conclusion (emphasis added): “Within 10 years of the triggering the proposed Northern Corridor Changed Circumstance, the County and the HCP Partners will develop a survey.” Yet, in numerous places between pages 66 and 109 (in addition to the observations given above), the Amended HCP reads as if the Reserve will continue to function, unchanged as it has since 1996. This leaves the reader with a false sense that what has been proposed and deemed a resounding success (the main thrust of the Amended HCP seems to document commitments above and beyond those required in 1995) will continue to function, as if the freeway will not be developed. We contend that in this respect the Amended HCP document is misleading, presumptions, and has failed to document what it identifies as a foreseeable, planned-for “Changed Circumstance.” Without divulging the ramifications of those changes and the overall impact of the freeway to the conservation balance, we contend that the document’s focus on successes between 1995 and 2019 fails to divulge how those successes are compromised by impairing the function of the Reserve going forward, which is identified in the Executive Summary as the “primary conservation measure” of the HCP. We feel that nearly every section of the Amended HCP needs to be reconsidered and modified to document current management without a freeway versus future management with a freeway, otherwise the Amended HCP does not effectively document the full extent of future conservation with a freeway through its Reserve.</p>	<p>Refer to responses to A.51-96 and A.51-93.</p>

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A.51-235	<p>HCP 203 113-114 7.3.2</p> <p>Comment: Technical Committee Composition – only see USFWS, UDWR, BLM, UDNR – Snow Canyon, local biologist nominated by Washington County Commission, and biologist-at-large nominated by the HCAC. The function of the technical Committee is to provide “technical guidance to the HCAC and HCP Administrator on matters related to the biology and conservation of the MDT and other protected species occurring in the Plan Area.” This responsibility means the committee members would need to possess current knowledge in several disciplines including conservation biology, population ecology, plant community ecology, and fire management. We recommend that research scientists in these disciplines be on the committee because of their knowledge and expertise and because they would be unlikely to have a vested interest in the HCP or Plan Area. This selection process, if it is the only requirement, gives an appearance of political influence. In addition to the current process, we recommend that criteria be developed regarding the knowledge and expertise needed for managing the Reserve for the tortoise, and then fill the positions on the Committee with persons with this knowledge and expertise. This provides for an objective selection process that fulfills the needed expertise on the Committee and provides a scientific foundation for this Committee.</p>	Refer to response to A.51-91.

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A.51-236	<p>HCP 204 118-123 8.1.1 20</p> <p>Comment: Referring back to Comment 202 above, we feel that the first actual acknowledgement of the Northern Corridor as part of the Amended HCP is not mentioned until page 118, where the document assumes the Changed Circumstances will be triggered. And that the first real analysis of the impact of the proposed freeway is not revealed until page 123 of the Amended HCP, when the following financial data are provided. Given the budget presented in Section 8.1.1, Table 20, the County is committing to pay \$27,680,957 over the next 25 years to implement the plan. That, in response to UDOT’s proposed freeway (or variation thereof), the County will pay \$16,171,151 (60% of the total cost) to accommodate the freeway compared to \$11,171,592 (40% of the total cost) without the freeway. And that this is only a fraction of the freeway-related costs, as it does not consider BLM expenditures that would not occur but for the freeway. In light of these observations, the Amended HCP seems more like a 16.2 million dollar mitigation package to accommodate a single entity’s project – UDOT’s freeway – than a proactive plan intended to recover tortoises.</p> <p>The proposed funding strategy is not reliable. It is not sufficiently diverse to deal with economic changes including recent major downturns seen to the building industry in the early 1990s and late 2000s. The funding strategy in this HCP should learn from and seek to avoid the adverse experiences of other HCPs/ITPs because of inadequate funding. Previously, the USFWS issued ITPs in southern California and southern Nevada that relied on building/development fees for funding conservation programs of HCPs. However, when building slowed, the funds were insufficient for implementing and maintaining the conservation program. USFWS should have learned from these experiences that a diversified source of funds is needed when building/development fees are the funding source for implementing the conservation program. In addition, the fee should not be fixed as the cost of implementation will likely increase during the 25-year permit term. This is another lesson the USFWS should have learned.</p>	<p>Refer to responses to A.51-96 and A.51-91.</p>

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A.51-237	<p>HCP 205 118-123 8.1 20</p> <p>Comment: Because the threats to the tortoise in the UVRU and the Reserve, status of the tortoise population in the Reserve and its trend since the ITP was issued in 1996 are not provided, they do not lay the foundation for what the appropriate conservation strategy is for the next 25 years for the tortoise. Because threats have increased in intensity, tortoise numbers and densities have declined, and habitat in the Reserve has been lost or severely impacted from human activities, the tortoise is in worse condition in 2020 than it was in 1996 when the ITP was issued. This should indicate that a continuation of past management is not working and substantial revisions to the Conservation Strategy are needed. Until this occurs in the HCP, the funding chapter cannot be developed.</p>	<p>The USFWS will use the best available scientific information in developing their Biological Opinions and Findings document to assist with the decision on whether to issue an ITP. Refer also to response to A.51-91.</p>

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A.51-238	<p>HCP 205 118-123 8.1 20 In addition, we assert the conservation actions funded in the HCP will not offset the incidental take of the tortoise requested in the HCP. The Permittee is requesting to provide XXX acres of conserved lands for development of 66,301 acres of tortoise habitat (Note: Since the Reserve could be bisected by the Northern Corridor, no one can ascertain how many actual acres are within the Reserve; should the areas south of the Northern Corridor continue to be counted as part of the Reserve if the freeway is developed? The answer is questionable; hence “XXX acres” in the above sentence). This is a 0.3:1 ratio of conservation and not acceptable under the MOG or any state conservation agency to offset impacts. However, the actual lands that the Permittee will be managing for the tortoise are far less as the Permittee has no management control over most of the lands identified for addition to the area inside the Reserve boundary, and as a result of the parenthetical note given above.</p> <p>Many of the conservation actions described in this section identify volunteers. The Permittee should not assume that these actions will be implemented as there may be a shortage of willing or trained volunteers. The implementation budget should include adequate funds to pay for all necessary wages and benefits, equipment, supplies, insurance, and contracts that should be implemented because the expertise that is needed to implement the HCP may not occur within the paid HCP positions (HCP Administrator, HCP Biologist, Outreach Coordinator, Field Technician) identified in the budget. On page 79, the 2020 HCP says, the Permittee acquired 1,240 acres, of which 350 acres were acquisition of mineral rights (page 79) and modified Reserve boundaries to add 987 acres, but we are not sure who manages this land. As previously mentioned, Law Enforcement is inadequately funded and seems again to rely on others (BLM and UDWR) to conduct most of the law enforcement. We have the same concerns for most of the conservation actions.</p>	<p>Washington County clarifies that the combined actions of the County and the HCP Partners secured the acquisition of an additional 1,240 acres for the Reserve.</p> <p>Refer also to responses to A.47-2 and A.51-91.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.51-239	<p>HCP 205 118-123 8.1</p> <p>20 According to Table 16 of the 2020 HCP, there are 36,968 acres of occupied or potential MDT habitat within the Reserve boundary. However, there is no information on how much is under the management of the Permittee or how many acres will remain after freeway construction. Table 17 shows 2,981 acres are private or other lands, some or all of which we presume are under the management of the Permittee. The remaining 59,028 acres are under federal or state management with the Permittee having no management authority. In the 1996 ITP, the Permittee was authorized to incidentally take the MDT on 25,096 acres. In the 2020 HCP, the Permittee is requesting to increase this acreage to 66,301 acres (page 55 - 5.2.2.2 Amount of Renewed Take Authorization). Thus, for the development of an additional 40,000 acres of MDT habitat, the Permittee is not proposing to acquire and manage in perpetuity MDT habitat that would offset this loss of 40,000 acres. We found no information on how endowment or enhancement funds or other means of providing adequate funding for the Reserve lands in perpetuity under the Permittee’s management authority would occur. We note that throughout the 2020 HCP the Permittee uses “in perpetuity” when discussing the conservation for the MDT population in the UVRU (p. 66, Section 6.1.2; p. 83, Section 6.3.1.2). However, we do not see this intent expressed in implementation with respect to current and future funding. This oversight needs to be corrected.</p>	<p>While the County has acquired some Reserve lands, the BLM and UDNR are the HCP Partners responsible for Reserve land acquisition and long-term management.</p> <p>Refer also to responses to A.51-147 and A.51-101.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.51-240	<p>HCP 206 120 8.1.1 20</p> <p>Comment: Under “Land Acquisition,” the budget identified acquisition of 450 acres in Zone 6 at an estimated costs of \$5,000 per acre. In searching Land and Farm website, we discovered that land prices in the area west of St. George varied substantially with smaller parcels costing more per acre than larger ones. Prices we found ranged from \$18,000 to more than \$60,000 per acre for raw land. We suggest this section of the budget be revised to reflect current real estate process with a real estate inflation rate included. Using history of real estate prices, this inflation rate is frequently greater than the overall rate of inflation. In any case, the \$5,000/acre figure quoted seems to be a gross underestimate.</p> <p>Funding is not sufficient to implement the conservation program described in the HCP. For example, the funding strategy claims that land acquisition in Zone 6 would be about \$5,000 per acre. In searching websites for raw land for sale in the area, the least expensive asking price found for raw land was \$18,000 per acre. Another example, there is little funding for effectiveness monitoring and adaptive management for implementation of the minimization and mitigation measures (e.g., public education and outreach, law enforcement, etc.). There is inadequate funding for proper implementation, monitoring, and adaptive management of a translocations program to any proposed new areas (e.g., studying resident tortoise before translocations, constructing and maintaining tortoise exclusion fencing along roadways in the Zone where translocation will occur, etc.).</p> <p>In addition, this section appears to assume that the 450 acres will be acquired gradually and throughout the 25-year permit term. Thus, if a large parcel becomes available for purchase in the first few years, the budget does not consider this and does not appear to have adequate funding. This also means that the conservation benefit for the MDT to be derived from the purchase and management of 450 acres of private lands would not be realized until near the end of the permit term. However, the acquisition of this land is supposedly a Changed Circumstance for the Northern Corridor freeway. The freeway will likely be built within a few years of the issuance of the ITP issuance, so this land acquisition would need to occur very soon.</p>	<p>The assumed per-acre costs for SITLA lands presented in the HCP are reasonable approximations based on conversations with SITLA. Washington County has indicated the County is prepared to make this funding available in accordance with the commitments stated in the Amended HCP and currently has a budget reserve of approximately \$7 million in addition to a reliable funding source through impact fees that assures this commitment can be met. As described in EIS Section 2.4, the land acquisition committed by the County would occur prior to construction of the Northern Corridor.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.51-241	<p>HCP 207 120 8.1.1</p> <p>Comment: Under “Land Acquisition,” the budget identifies Reserve land acquisition real estate transaction costs (appraisals, surveys, title searches, recording fees, etc.) as \$20,000 per year with a total budget of \$648,851. At a low cost of raw land of \$18,000 per acre, if this price holds, the Permittee is anticipating only purchasing 36 acres with no inclusion of fees for appraisals, surveys, title searches, recording fees, etc. We do not understand how this budgeted amount or acreage amount would offset the additional 42,205 acres of incidental take the Permittee is requesting that is in addition to the incidental take granted in the 1996 ITP. Please explain in the revised HCP.</p>	<p>The HCP commitments include Reserve land acquisition (excluding commitments associated with the Northern Corridor changed circumstance) that provide financial support for the real estate transaction costs of the land acquisition partners, not to provide for direct land acquisition.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.51-242	<p>HCP 208 122-123 8.1.1 20</p> <p>Comment: Under “Monitoring and Adaptive Management Planning,” only one action is identified for funding – “Baseline Reserve population monitoring.” There are other effectiveness monitoring actions that should be added to the HCP budget to determine if the current management of the Reserve is achieving the intended goal of conserving the MDT. These include various types of recreational uses, habitat restoration efforts, and minimization efforts (e.g., types of fencing and locations, law enforcement, outreach and education, results of ongoing MDT translocation efforts, etc.). In addition, there is the requirement to conduct compliance monitoring. This would apply, for example, to all human activities in the Reserve. We request this section be revised to indicate the different types of monitoring (e.g., compliance, effectiveness, etc.) that are required in an HCP, list the monitoring studies by activities that are known to contribute to take of the MDT (including “take” of habitat as this is the metric that the Permittee has requested to use to determine take). As such there should be a baseline study conducted to determine the quality, quantity, and connectivity of MDT habitat in the Reserve. This would then be compared to future studies (e.g., every 5 years) and comparisons made to determine if the habitat has improved, which can only be determined by monitoring.</p> <p>For all monitoring efforts, there should be an ecological statistician who reviews the monitoring design and implementation. If you do not properly monitor an issue, you do not know if your actions are effective.</p> <p>There should be a separate Adaptive Management Budget for the HCP, as not all implementation is successful. This budget should identify each issue that corresponds to each monitoring issue.</p>	<p>The Amended HCP addresses compliance monitoring through regular coordination among the HCP Partners, including the USFWS and the BLM, and annual reporting to track implementation of the conservation measures and other commitments. Effectiveness monitoring is achieved through Baseline Reserve Population Monitoring and Special Topic Monitoring, which also undergo extensive coordination through the HCAC and, when appropriate, the TC. These monitoring efforts draw on the substantial expertise of the land and resource management agencies.</p>

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A.51-243	<p>HCP 209 124 8.1.2</p> <p>Comment: This section relative to other HCP plan partners reverts back to 1995 estimated expenditures for BLM and UNDR, which are no longer applicable to the Amended HCP, given the “Changed Circumstances.” Nor is it consistent with Section 8.1.1 which reveals the costs of plan implementation with and without the Northern Corridor. Therefore, it is incumbent upon the authors to reveal what the costs are to BLM and UNDR with and without the Northern Corridor. We expect that the expenses to BLM (hence taxpayers) will be considerable (estimated at 60 to 70 million dollars on page 124) given that half of the Zone 6 satellite reserve is comprised of SITLA-managed lands would need to be purchased, and the County has stated it is not responsible for these acquisitions (see second bullet on page 110).</p>	<p>The BLM, USFWS, and UDNR are key partners in the Washington County HCP and their commitments and actions contribute to the attainment of the recovery-based Biological Goals and Objectives of the HCP. The USFWS acknowledges the specific commitments by these partners in the Implementation Agreement and that HCP successes have occurred because of this history of partnership. Although funding assurances are considered in the evaluation of offsets to impacts, specific funding commitments for each action are not required for the County to demonstrate compliance with its ITP or to meet ITP issuance criteria.</p> <p>An HCP is comprised only of actions of the applicant or under the applicant’s direct jurisdiction or control. The failure of third parties to perform any particular conservation action should have no bearing on the applicant’s compliance with the ITP. The County’s commitments are clearly described separate from the additional actions of the other HCP Partners.</p> <p>The BLM has many tools for land acquisition, including both direct purchase and exchange.</p> <p>Refer also to response to A.51-91.</p>

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A.51-244	<p>HCP 210 124 8.1.2</p> <p>Comment: We note that Section 8.1.2 restates the intended budgets of 1995 without revealing actual expenditures by the BLM or UNDR; that nowhere in the Amended HCP is there an accounting of expenditures to date by these entities. Therefore, we ask that this section be amended to reveal the actual costs of implementation to date. This request is consistent with the next section, where expenditures by Washington County are given to the dollar: “...\$6,344,254 more than originally budgeted for implementation of the 1995 HCP (70% more).”</p>	<p>Refer to response to A.51-243.</p>
A.51-245	<p>HCP 211 124 8.1.2</p> <p>Text: “The BLM and UDNR are responsible for Reserve land acquisitions and long-term management and monitoring toward achieving the recovery-focused biological goals and objectives of this Amended HCP.”</p> <p>Comment: Habitat acquisition and management is the primary conservation strategy of the 1995 and 2020 HCPs. Washington County was granted incidental take to develop on about 25,000 acres of MDT habitat under the 1996 ITP. It now requests incidental take for the MDT for an additional 42,205 acres with no commitment to acquire and manage habitat for the MDT. This apparent absence of minimizing and mitigating the impacts of the incidental take must be changed and the conservation strategy of the HCP substantially modified to include funding for acquisition, enhancement, and management in perpetuity of the habitat acquired under the HCP to demonstrate the Permittee has minimized and mitigated to the maximum extent practicable (see 2016 HCP Handbook). The Permittee cannot and should not rely on a state and federal entities to provided minimization and mitigation measures for incidental take of the MDT, as the Permittee has no management authority over these entities. Thus, there is no assurance that the lands acquired by BLM and State agencies will be managed for the MDT in perpetuity. Please provide additional analyses of funding sources and expenditures to address this absence of assurances. In addition, the HCP says, “...the value of its remaining lands within the Reserve may roughly total approximately \$60 to \$70 million.” If this is correct, the Funding section of the HCP should show how many acres of private land remain within the Reserve boundary and how the Applicants propose to raise sufficient funds to purchase these lands as habitat acquisition in the Reserve is their primary conservation action. Page 120 of the HCP shows Total Expenses (future value with inflation) for Land Acquisition of less than \$650,000.</p>	<p>The HCP Partners are committed to the long-term management of the Reserve for the benefit of Mojave desert tortoise in perpetuity. To accomplish this, land management agencies have agreed as HCP Partners, to be responsible for long-term management of lands acquired by them. This cooperative arrangement is the most enduring option and has been supported for more than 20 years. This is also evidenced by ongoing conservation activities cooperatively implemented by the HCP Partners today. Considering the commitments of partners that are able to add to ensure jurisdictional perpetuity is consistent with HCP guidelines and policy and is explained in the Amended HCP. To ensure land acquisitions are protected in perpetuity, land management agencies with wildlife, habitat, and/or land management responsibilities are needed. Special protections and land management activities are implemented and can change as changing times and circumstances demand as long as they are consistent</p>

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		<p>with the Reserve values and benefit of Mojave desert tortoise. The USFWS will analyze these in determining if issuance criteria are met and if so, shall provide the ITP. Refer also to responses to A.51-91 and A.51-243.</p>
A.51-246	<p>HCP 212 124-125 8.2.1 Comment: The Permittee’s portion for the costs of implementing the 2020 HCP are small when compared to those of the BLM and state agencies as acquisition and management is left to the land holder. Most lands with the Reserve boundary are under BLM or state agency management. This avoidance of mitigation responsibility by the Permittee should be changed with the responsibility for funding mitigation and minimization in perpetuity with the Permittee. This means that the source of funding should not be limited to development fees. The Permittee must demonstrate that they have funds available or have the authority to and will implement fees to entities of Washington County to fully fund a substantially revised HCP that takes responsibility for habitat acquisition, enhancement of habitat, and management of that habitat in perpetuity for the benefit of the tortoise. We request this section be substantially modified to demonstrate this funding availability.</p>	<p>Washington County has provided their assessment of funding and conservation actions in the Amended HCP. The USFWS conducts an independent analysis of the HCP in two associated documents, the Biological Opinion and the Findings and Recommendations Memorandum. These documents assess the impacts to all Federally listed species within the action area and assess the HCP in light of the issuance criteria, respectively. The issuance criteria includes, “The applicant will ensure that adequate funding for the conservation plan and procedures to deal with unforeseen circumstances will be provided.” Refer also to responses to A.51-91 and A.51-243.</p>

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A.51-247	<p>HCP 213 124 8.2.1</p> <p>Text in footnote: “The 1995 HCP also established a fee assessed by the Municipal Partners on new plat approvals for subdivision, condominium, town home, or public utility district developments.” “this platting flat fee did not adjust with inflation and only generated approximately 10% of the HCP revenue collected over the term of the Original ITP. The County has simplified the funding mechanism for this Amended HCP by eliminating the assessment of this flat fee, in favor of relying on the 0.2% fee on building permits.”</p> <p>Comment: From this language, it appears that the County has a fixed fee for funding the HCP. We found no language in the HCP that suggests this percentage can or would be increased as needed to fully fund the implementation of the HCP. This flexibility language should be added as should identification of other funding sources if the fee from building permits is not adequate (e.g., slowdown in development, etc.).</p>	<p>The County has a balance of nearly \$7 million in its HCP Trust Fund to help ensure that sufficient funds are available over the new ITP term. Chapter 8 of the HCP describes the budget and funding assurances. Refer also to responses to A.51-91, A.51-209, and A.51-246.</p>
A.51-248	<p>HCP 214 125 8.3 20</p> <p>Text: “Nonetheless, the County assures that the general level and distribution of funding illustrated in Table 20 will be available to implement its commitments under this Amended HCP through the Renewed/Amended ITP Term.”</p> <p>Comment: As presented above in comments concerning pages 118 through 125 of the Amended HCP, the funded items and amounts are inadequate. They do not approach the USFWS standard of minimizing and mitigating to the maximum extent practicable by offsetting the impacts of the incidental take.</p>	<p>Refer to responses to A.51-91, A.51-209, and A.51-246.</p>

Appendix O Responses to Public Comments on the Northern Corridor – Highway Right-of-Way, Issuance of an Incidental Take Permit Final EIS and Draft RMP Amendments

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.51-249	<p>HCP 215 126 8.3</p> <p>Text: “In the event that the County is unable to meet all or part of its funding obligation, the County will enter into discussions with USFWS to discuss feasible alternatives which can accomplish the requirements as stated in this Amended HCP. In the event that funding cannot continue at committed levels, then an amendment procedure may be initiated to reduce the scope of this Amended HCP. In the event that the County cannot continue to make payments as specified in this Amended HCP or worked out through an amendment procedure, then the County’s obligation to fund the HCP as described in Chapter 8.1 shall terminate and the County shall thereafter have no obligation to make further payments and the USFWS may initiate action to revoke the ITP.”</p> <p>Comment: The presence of this paragraph indicates that the Applicants cannot provide assurances to fund the HCP. We find this unacceptable and not meeting the requirements for issuing an ITP. The Applicants have the authority to implement additional funding sources through various means (e.g., increase the fee above 0.2%, assess other fees as all who reside in Washington County benefit from the Reserve, etc.). If the Applicants truly want to implement the HCP and demonstrate good faith, they will remove this paragraph from the HCP.</p>	<p>Chapter 8 of the HCP describes the budget and funding assurances. Refer also to responses to A.51-91 and A.51-246.</p>
A.51-250	<p>HCP 216 126 8.3</p> <p>Text: “The USFWS and BLM intend to fulfill their responsibilities completely and expeditiously, as confirmed with the execution of the Implementation Agreement. Both BLM and USFWS will, to the maximum extent practicable, allocate sufficient staff and financial resources as may be necessary to accomplish these responsibilities. USFWS shall include in annual budget requests sufficient funds to fulfill its obligations under this Amended HCP. BLM shall likewise include in annual budget requests sufficient funds to fulfill its obligations under the Implementation Agreement and this Amended HCP.”</p> <p>Comment: This paragraph should be removed from the HCP. It has no relevance with respect to the Applicant’s HCP activities. Furthermore, the Applicants cannot speak for these agencies, have no management authority over these agencies, and cannot promise that these actions will happen in the future or for how long.</p>	<p>Refer to response to A.51-91.</p>

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Letter #- Comment # or Public Concern Statement #	Comment	Response
A.51-251	<p>HCP 217 127 Chapter 9</p> <p>Comment: We are dismayed to read the proponent-biased rhetoric given at the top of page 127 that “a deal is a deal,” in favor of the HCP Partner beneficiaries, when that part of the “deal” that should guarantee tortoise conservation and recovery – the Red Cliffs Desert Reserve – is expressly no longer part of the deal. We construe that such a statement appearing in this Amended HCP is evidence that the authors have not fully considered the significant ramifications of gutting the 1995 HCP by facilitating freeway development as part of the 2020 revised HCP. That, and the County is confident of achieving its desired results to develop the Northern Corridor with most of the burden being mitigated on SITLA and the BLM lands in pursuing the Zone 6 compromise. It would seem that No Surprises, as used in this planning process and resulting Amended HCP, applies only to the proponent and not to the tortoise.</p>	<p>No Surprises assurances applies only to the duration of the existing permit (USFWS and NMFS 2016 p. 12-10); the 1996 ITP expired in 2016. Once amendments associated with the permit are finalized, No Surprises assurances that are described in USFWS regulations (63 FR 8859, February 23, 1998) would apply to the amended HCP and ITP for the duration of the permit because the Amended HCP contains enumerated changed circumstances. Refer also to response to A.51-96.</p>
A.51-252	<p>HCP 218 127 9.1</p> <p>Comment: We note that the two examples given for Changed Circumstances on page 127 – “(e.g., the listing of new species, or a fire or other natural catastrophic event in areas prone to such events)” and a third on page 136 “(i.e., delisting the desert tortoise)” – are unforeseen, stochastic events, and unlikely but desirable results, respectively, that cannot be anticipated. We ask that the authors of the Amended HCP expand this discussion to document examples of previous Changed Circumstances that were used as a mechanism to promote foreseeable projects that would not occur but for a completely discretionary action like the Northern Corridor. We believe that the intent of the Changed Circumstance clause was to deal with circumstances that are beyond the control of the Permittee and Applicant, that it was never intended – as is currently being proposed – to accommodate actions that undermine conservation and recovery of covered species.</p>	<p>Changed circumstances are defined in the No Surprises rule as “changes in circumstances affecting a species or geographic area covered by [an HCP] that can reasonably be anticipated by [plan] developers and the Services and that can be planned for (e.g., the listing of new species, or a fire or other natural catastrophic event in areas prone to such events).” (50 CFR 17.3).</p>
A.51-253	<p>HCP 219 127 9.1.1</p> <p>Text: “The proposed Northern Corridor is described in a Plan of Development submitted to the BLM with an application for a ROW across BLM-managed lands within Reserve Zone 3.”</p> <p>Comment: Please update this information to include that there are now several alternatives including avoiding the Reserve.</p>	<p>The EIS describes and evaluates alternatives for the Northern Corridor. Refer also to response to A.51-93.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.51-254	<p>HCP 220 127-141 9.1</p> <p>Comment: Changed Circumstances Rule Federal Register 2-23-1998 - “Many changes in circumstances during the course of an HCP can reasonably be anticipated and planned for in the conservation plan (e.g., the listing of new species, or a fire or other natural catastrophic event in areas prone to such events), and the plans should describe the modifications in the project or activity that will be implemented if these circumstances arise.”</p> <p>We know fires will continue to occur until non-native invasive species are eliminated and human-caused fires are curtailed. In addition, recurring fires should be a Changed Circumstance with fire prevention, fire suppression, and habitat restoration of recently burned areas a biological objective. Unfortunately, human-caused and lightning-caused fires should be expected to occur in the UVRU because of ongoing human actions that introduce non-native invasive plant species to the area, recurring actions that promote their growth, and failure of land management agencies to implement actions to suppress their growth/reproduction.</p>	Refer to response to A.51-252.
A.51-255	<p>HCP 221 128 9.1.1</p> <p>Text: “The County and the HCP Partners would establish a new Reserve Zone 6 in the vicinity of the former Bloomington incidental take area located to the west of Interstate 15 and south of the Santa Clara River. The new Reserve Zone 6 would include approximately 6,813 acres of primarily SITLA-owned or BLM-managed lands. The County would fund the acquisition of a portion of the non-federal lands within Reserve Zone 6. The funding would be enough to acquire three times the acreage of land within the proposed Northern Corridor roadway ROW.”</p> <p>Comment: Issues with this statement that need to be clarified, as it is currently unclear what actions would be taken to implement this Changed Circumstance, follow:</p> <p>What does “a portion of non-federal lands” mean? How much of the 49 percent of the non-federal lands would be acquired?</p> <p>Acquiring three times the acreage of the ROW does not begin to minimize and mitigate the indirect adverse effects to the tortoise from the construction, use, and maintenance of this freeway. These effects extend far beyond the ROW of the roadway.</p>	Refer to responses to A.51-96 and A.51-93.

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	<p>These include:</p> <ul style="list-style-type: none"> <li>• road effect zone;</li> <li>• new sources of food for ravens from wildlife “roadkill” on a new highway that attracts more ravens to the Reserve and likely increasing tortoise mortality;</li> <li>• spread and proliferation of nonnative plant species transported along highways, thus requiring more management and funding by Washington County in Zone 3 to control these species;</li> <li>• fragmentation of the tortoise population south of the new highway and its eventual loss because of its small size and stochastic events;</li> <li>• increase in fire frequency because of the presence of vehicles that start many fires in the Mojave Desert (Brooks and Matchett 2006) (e.g., Turkey Farm Road and Cottonwood Trail fires);</li> <li>• increase in fire size because of the proliferation of non-native invasive plant species;</li> <li>• increased, planned-for availability and ease of human access to Zone 3 of the Reserve providing new opportunities for tortoise collection, vandalism, and source of human-caused fire; and,</li> <li>• increased levels of nitrogen from vehicle operation along the Northern Corridor contributing to the growth and proliferation of non-native invasive plant species over native species.</li> </ul> <p>The presence of one or more of these factors will result in much greater incidental take of MDT and tortoise habitat than from highway construction (i.e., the footprint of the highway). The HCP needs to demonstrate how it is minimizing and mitigating to offset these impacts.</p>	
A.51-256	<p>HCP 221 128</p> <p>9.1.1 Issues with information provided on management of Zone: 6</p> <p>- More than 90 percent of the land is state or BLM owned and is outside the NCA. The BLM land is an ACEC, which means little with respect to managing the lands for the benefit of the tortoise. The BLM in the California Desert Conservation Area (CDCA) designated ACECs for the tortoise with some land use limitations in 2006 (and earlier), then designated them as Tortoise Conservation Areas in 2016. They continue to experience dramatic declines in density and numbers. Despite these data, BLM amended their CDCA Plan in 2019 to expand the number and miles of authorized routes for OHV use.</p> <p>This history by BLM provides little assurance that BLM’s management would result in a measurable benefit for the tortoise and its habitat in Zone 6. To ensure a measurable benefit, the land management designation for BLM land would need to</p>	<p>Under the 1995 HCP, the County and partners established a positive track record for acquiring lands in the Reserve and the USFWS will take consider this in their decision whether to issue the ITP.</p> <p>Refer also to response to A.51-93.</p>

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	<p>be changed to include a conservation easement to manage the land for the benefit and recovery of the tortoise in perpetuity because the development is long term. In the absence of revised RMPs, the HCP is promising conservation that we, the affected public, cannot assess.</p> <p>Issues with adverse effects information provided on Zone 6</p> <p>Currently the language is vague regarding the specific commitments for acquisition and management of Zone 6. This means it is unenforceable. The following information as a minimum should be added to this Changed Circumstance to better define what would be implemented:</p> <ul style="list-style-type: none"> <li>- What are the current and future uses that would be allowed in Zone 6 regardless of ownership? To be managed for the benefit and recovery of the tortoise, activities that adversely affect tortoises and/or tortoise habitat (e.g., grazing, motorized and non-motorized OHV use, shooting, long-term camping, competitive events, events attracting a large number of people, any form of surface disturbance, etc.) would need to be prohibited in Zone 6, existing surface disturbance restored to native habitat, and management sufficiently funded to improve, then maintain the habitat and restore any habitat degraded or destroyed directly or indirectly by human-caused activities (e.g., fire, nonnative plant species, human subsidized predation, etc.).</li> <li>- Where are the data and detailed maps (e.g., size, shape and edge effects/connectivity to other occupied habitat that would be acquired by Washington County) that support Washington County’s planned acquisition and management in perpetuity of Zone 6? For example, although the size (i.e. total acres) of the Reserve would increase by 10 percent, if there is limited or no connectivity to the actual Reserve, if the land is a patchwork of undeveloped and developed acres, etc. so there is much edge effect, if the area has and would continue to have uses that are incompatible with management of tortoises and tortoise habitat (e.g., shooting, OHV activity, etc.), and there is no permanent guarantee of management for the benefit of the tortoise (e.g., current ACEC designation can be changed and funding is not guaranteed), then the total acres have little contribution to tortoise recovery and likely do not minimize and mitigate to the maximum extent practicable all the direct and indirect effects from construction, use, and maintenance of the highway through Zone 3 of the Reserve (e.g., mortality and injury from vehicle collisions, creating a wildlife road-kill food source to subsidize and grow a raven population that preys on tortoises, increased spread of nonnative plant species promoting their growth in the Reserve, increasing occurrence of fires because of the increase presence of vehicles and people, fragmentation of the largest contiguous portion of tortoise habitat in the Reserve and creating an isolated population of tortoises south of the proposed road that would likely succumb to stochastic events and disappear), much less the take of tortoises from 60,000 more acres.</li> </ul>	

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	<p>- Where is the demographic data on tortoise genetics, population size, density, size class, sex ratio and trend for these demographic parameters for Zone 6?</p> <p>- Where is the map of habitat quality including abundance and density of nonnative plant species, extent of human-caused surface disturbance, and woody plant cover and species composition for Zone 6?</p> <p>- How does the habitat in Zone 6 compare to Zone 3 habitat (i.e., is it typical Mojave desert scrub habitat or habitat unique to the Red Cliffs area)?</p> <p>- Will endowment and enhancement funds be established to provide for its management for the tortoise in perpetuity?</p> <p>- Where is the comparison of all acres impacted from the road effect zone by the construction and use of the Northern Corridor and fragmentation of tortoises/tortoise habitat in Zone 3 with the acres to be acquired by the County in Zone 6? Absent this information, it is impossible to determine if these proposed actions by the County are adequate to mitigate for the short-term and long-term loss of tortoises (the small isolated population between the proposed Northern Corridor route and existing development to the south is likely to result in the loss of all tortoises and miscellaneous other wildlife species south of the freeway).</p> <p>The Changed Circumstances section of the HCP should answer the questions asked above, clearly state in quantifiable terms the specific actions that would be implemented under the HCP and analyze how they would minimize and mitigate all adverse effects of the Northern Corridor. This information is needed by the USFWS for their analysis in the Biological Opinion and Findings documents.</p>	
A.51-257	<p>HCP 222 130 9.1.1.1</p> <p>Comment: We found no information in this section on the habitat for the MDT. Please describe the habitat including topography, soils, cover and density of woody and native annual vegetation, density and cover of nonnative annual plant species, and map areas that are degraded and damaged by surface disturbance and structures. Although presented in the Draft EIS, it is essential that this information also appear in the 2020 Amended HCP document, particularly since it is not addressed in the 1995 HCP document.</p>	<p>The USFWS' Biological Opinions and Findings document for the HCP will include the most relevant, currently available biological information. Refer also to response to A.51-91.</p>

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A.51-258	<p>HCP 223 130 9.1.1.1</p> <p>Comment: This section provides data on the number and density of MDTs from survey results. However, these data are reporting total numbers of tortoises for surveys with no information on the survey method(s) used. The HCP is providing data that are unclear and therefore not comparable to other data in the HCP. Consequently, any conclusions from these data are not supported. Please standardize all data results presented in the HCP and describe the methods used to collect the data. Please do not extrapolate data collected “in the vicinity of the proposed Reserve Zone 6” for the MDT to lands in Zone 6.</p>	<p>Section 9.1.1.1 of the Amended HCA also cites Rognan et. al. (2017), which contains information on the survey methods used to generate the Mojave desert tortoise estimates for Zone 6. Refer also to response to A.51-91.</p>
A.51-259	<p>HCP 224 131 9.1.1.1.2</p> <p>Text: “The County and the HCP Partners will expand the target acquisition area for the Reserve to include the proposed Reserve Zone 6 boundary.”</p> <p>Comment: Would it not be better for the MDT to acquire lands within Zone 6 and not just the boundary? The word “boundary” needs to be deleted.</p>	<p>This requested change was made by Washington County in the Amended HCP.</p>
A.51-260	<p>HCP 225 131 9.1.1.1.2</p> <p>Text: “The County and the HCP Partners anticipate that the acquisition of SITLA-owned lands within Reserve Zone 6 will use the same mechanisms and be subject to the same provisions as described in Chapter 6.3.1.2.”</p> <p>Comment: Unfortunately, Section 6.3.1.2 Reserve Acquisition Strategy, does not provide information on or a commitment to acquire lands prior to or commensurate with the indirect impacts to the MDT from implementation of construction, use, and maintenance of the Northern Corridor. This commitment needs to be added to Section 9.1.1.1.2.</p>	<p>Refer to response to A.51-93.</p>

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A.51-261	<p>HCP 226 131 9.1.1.1.2</p> <p>Text: “The County and the USFWS acknowledge that the use of ESA Section 6 funds to support the acquisition of Reserve Zone 6 is an acceptable use of this federal grant program, since this conservation measure is in response to a Changed Circumstance affecting the conservation value of the original Reserve, rather than a mitigation measure necessary to address incidental take from a Covered Activity.”</p> <p>Comment: We cannot agree with this statement given the combined efforts of UDOT, Washington County, and BLM to allow dedicated conservation lands to accommodate the Northern Corridor. Until there is a requirement that these lands purchased for conservation purposes must remain for this purpose and cannot be changed, this is not an appropriate use of federal grant monies.</p>	<p>Proposed Zone 6 would be established as a result of a changed circumstance, as detailed in the Amended HCP. The ESA Section 6 lands in the NCA were acquired through the Habitat Conservation Plan Land Acquisition Grants. These grants cannot be used for permittee-required commitments under the HCP. Therefore, proposed Zone 6 cannot be considered as replacement lands to compensate for impacts to Section 6 lands. Compensation would be completed using non-Federal dollars and the conditions of compensation are subject to negotiation between the USFWS and UDNR. If compensation for impacts to Section 6 lands is required, the USFWS will review the UDNR’s proposal for compensation and determine the appropriate environmental review process, including any NEPA documentation and public review opportunities, at that time.</p> <p>The acquisition of lands in Zone 6 using ESA Section 6 funds would require the State to manage those lands in accordance with executive grant agreements. If compliance with the terms and conditions of the executed grant agreements for the long-term conservation cannot be achieved, then the properties acquired through the grant or property used to match the grant funds is subject to transfer, replacement, or repayment to the United States government.</p> <p>Refer also to response to A.51-91.</p>

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A.51-262	<p>HCP 227 131 9.1.1.1.3</p> <p>Text: "...the County and the HCP Partners will restrict the Covered Activities applicable to Reserve Zone 6 to only those allowed uses described in Chapter 2.2 with respect to recreation uses and related facilities when performed in accordance with the PUP (to be amended as described below); utilities, access roads, water development, and flood control when performed in accordance with the Development Protocols; and general Reserve management when performed in accordance with this Amended HCP or long-term management guidance (e.g., BLM RMPs). In addition, the following zone-specific allowed uses will be established for the proposed Reserve Zone 6:</p> <ul style="list-style-type: none"> <li>• existing state and local government infrastructure and uses; and</li> <li>• competitive use events that have the approval of a special recreation permit issued by the appropriate land management entity or the HCP Administrator, as applicable."</li> </ul> <p>Comment: This section is unclear. Does it only apply to recreation uses? Competitive events are not allowed in the Reserve because of their impacts on tortoise/tortoise habitat. This would further reduce the ability of these lands to minimize and mitigate the incidental take outside the Reserve from construction, use, and maintenance of the Northern Corridor and all take associated with it from indirect impacts (road effect zone, new source of nitrogen to promote the growth of non-native invasive plants, increasing the likelihood of fires from the presence of vehicles (see Brooks and Matchett 2006), fragmentation of the tortoise population such that the small population created and isolated south of the Northern Corridor would likely become extirpated from genetic, demographic, and environmental stochastic events, and the growth-inducing impacts of a new roadway to surrounding areas. One could argue the lands cannot be developed because they are mostly managed by BLM. However, most of California City, California was BLM land at one time. BLM has a history of divesting itself of lands it finds difficult to manage. The HCP fails to demonstrate how it is minimizing and mitigating to the maximum extent practicable the impacts of the taking of the tortoise requirements in the 1994 Recovery Plan and reiterated in the 2011 Revised Recovery Plan from the implementation of the Northern Corridor.</p>	Refer to response to A.51-183.

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A.51-263	<p>HCP 228 131-134 9.1.1.1.4 13</p> <p>Comment: All of our concerns relative to fencing, law enforcement, community outreach and education, development protocols, recreation management, and fire management also apply to this section under Conservation Actions.</p>	Comment noted.
A.51-264	<p>HCP 229 132 9.1.1.1.4</p> <p>Text: “The amount of MDT Habitat within the Reserve that may be permanently lost to Covered Activities will not exceed 200 acres over the duration of the Renewed/Amended ITP Term (page 57 of the Amended HCP).”</p> <p>Comment: We note on page 3-12 of the DEIS Volume 2 in Table 3.2-2 that the impact acreage identified for the UDOT proposal is 240 acres, compared to 150 acres cited on page 132 of the Amended HCP. A third impact acreage of 200 acres is given above. What is the explanation for these discrepancies? Table 3.2-3 on page 3-13 of the DEIS estimates that the indirect effects of this proposal would affect 3,879 acres of tortoise habitats. The naïve reader may be led to believe that acquisition of 450 acres (which should be 720 acres if the 240-acre figure in the DIES is to be believed) sounds adequate, but more informed readers understand that acquiring 450 acres of SITLA lands that have not been targeted for development in the last 24 years is a minimal commitment by the County and dismisses that the actual impacts of the Reserve are far more than either 150, 200, or 240 acres (whichever figure turns out to be accurate). And since the County has clearly stated it is not responsible to acquire the SITLA lands, its good faith effort to minimize the impact of the Northern Corridor is in question.</p>	Refer to responses to A.51-95 and A.51-96.

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A.51-265	<p>HCP 230 132 9.1.1.1.4</p> <p>Text: “Both of these alternatives [in the NCA RMP] would modify REC-5 to manage a 600-foot-wide area along the selected Northern Corridor as part of the Rural RMZ, which allows for operational components such as paved roads where visitors ‘can expect a steady stream of highway auto and truck traffic’” (emphasis added).</p> <p>Comment: We note the above statement given on page 3-132 of the DEIS. We interpret this statement to mean that an area 600 feet wide – not 300 feet wide – would be directly impacted. If perimeter fences will be installed to encompass a width of 600 feet for the 4.0-mile-long freeway, it is our calculation that 298 acres would be removed from tortoise use, not 150 (or 200, or 240, or some other acreage). Please clarify.</p>	<p>The Northern Corridor alternatives analyzed in the EIS consider a ROW up to 500 feet wide. The 600-foot width is for the amendment to existing RMZ boundaries, which represent recreational settings, not the location of infrastructure. This 600-foot RMZ boundary adjustment would not modify the BLM’s management of other resources, including the issuance of new ROWs.</p>
A.51-266	<p>HCP 231 132 9.1.1.1.4</p> <p>Comment: Both the DEIS (see page 2-15) and the Amended HCP (page 57) state that the compensation ratios derived from the 1991 Desert Tortoise Management Oversight Group (DTMOG) formula are being used to determine compensation. However, neither document reveals that the HCP Partners have, in fact, not chosen to implement the multiplying factor sum resulting from the compensation formula. As given on page 7 of that formula, there are five variables, the sum of which is used to multiply the acreage of impact to determine compensation. (Note: Nowhere else in the listed range of the tortoise does anyone still use this 1991 DTMOG formula. In all four states where Critical Habitats or acreage within DWMA’s are impacted, the standard compensation ratio is 5:1). These variables and the numbers applicable to the Northern Corridor follow:</p> <p>C = Category of Habitat = Category 1, which is synonymous with Critical Habitat = 3  T = Term of Effect = &gt; 10 years = 1  E = Existing Disturbance Onsite = Little or no disturbed habitat = 1  G = Growth Inducing = None = 0, Yes = 0.5  A = Adjacent Habitat Impacts = Direct or Indirect Effects in Adjacent Areas = 0.5  Total = 5.5</p> <p>Since it can be argued that the Northern Corridor is growth-accommodating rather than growth-inducing, that value may very well equal zero for Variable G, but that still leaves an undisputed multiplying factor of 5.5. Although we have persuasively argued that the Northern Corridor is not compatible with tortoise conservation and recovery on Critical Habitats inside the Reserve and that it violates the assumptions</p>	<p>Refer to responses to A.51-183 and A.51-265.</p>

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	<p>of the 1995 HCP, we see here that the HCP Partners are promoting a compensation ratio of 3:1, claiming to use the DTMOG formula as the basis for that calculation, but failing to follow the calculated ratio of a minimum of 5.5:1. As given above, there are already conflicting estimates of the direct impacts of the Northern Corridor (300 feet versus 600 feet wide areas), but no explanation why the HCP Partners are choosing to claim adherence to the DTMOG formula, not doing so, and promoting a compensation ratio of 3:1 rather than 5.5:1; offering to acquire 450 acres, when in fact the formula they reference indicates a compensation ratio of 5.5:1, which would be a minimum of 825 acres (for a 300-foot wide impact) to as much as 1,639 acres (for a 600-foot wide loss of tortoise habitat). Failure to divulge this dynamic (and numerous other instances given herein) strongly suggest that the HCP Partners do not fully acknowledge the impact of the freeway through the Reserve (and to public trust), and whether they do or not, are looking for every means possible to develop the freeway with a minimum cost to the County.</p>	
A.51-267	<p>HCP 232 132 9.1.1.1.4 Comment: With regards to reserve fencing discussed in the 3rd bullet on page 132, we note that although this section relates to Zone 6, there is no discussion in this section that the new Northern Corridor would also be fenced, which would have deleterious effects in terms of fragmentation and “beneficial” effects in minimizing road-killed tortoises (which would not occur but for the Changed Circumstance/Northern Corridor the HCP Partners are now promoting).</p>	<p>The EIS includes conservation measures specific to the Northern Corridor, including fencing of the ROW and under-road passages. Refer also to response to A.51-96.</p>

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A.51-268	<p>HCP 233 135 9.1.1.1</p> <p>Text: “Upon the triggering of this Changed Circumstance, the County will retire approximately 3,338 acres of incidental take previously authorized by the USFWS and otherwise renewed with this Amended HCP and Renewed/Amended ITP.”</p> <p>Comment: Though not directly revealed, we understand this statement is referring to the SITLA lands in Zone 6. Given that these lands have remained intact for many years, and presumably since the 1995 drafting of the HCP (please confirm), there has been no intent to sell them. We ask that the Amended HCP (or perhaps more appropriately in the DEIS?) document the acreage of SITLA lands within the Plan Area and how many SITLA lands have actually been sold since 1995. These data will reveal the actual threat, and therefore conservation benefit, of including these lands in Zone 6. If there is no actual likelihood that these lands will be purchased and subsequently developed, we question the conservation value of retiring these lands from take authorization. Furthermore, it is our understanding that SITLA is under NO legal obligation to sell or “give” lands to HCP partners like the BLM or UDWR; there are still SITLA lands within the core of the Reserve (since 1995) and the only way they will be sold to HCP partners is under congressional legislation. So, we ask that the Final EIS provide more discussion as to how exactly SITLA is obligated to participate as envisioned and as they pertain to our comments.</p>	<p>SITLA will become a new HCP Partner and commits to allowing its unacquired Reserve lands to be managed by the County for the benefit of the Mojave desert tortoise and for allowing the BLM to acquire its lands as opportunities become available. SITLA will be a signatory to the Implementation Agreement. Refer also to response to A.51-91.</p>

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A.51-269	<p>HCP 234 135 9.1.1.2</p> <p>Text: “To compensate for fragmentation effects of the proposed Northern Corridor, the County and the HCP Partners will provide technical assistance to UDOT for the design and construction of tortoise-crossing culverts under Cottonwood Road within Reserve Zone 3.”</p> <p>Comment: With regards to the above statement, we ask that more detail be provided. How long has this road been fenced? And, depending on the answer, why haven’t the HCP Partners not already implemented this action? We understand from elsewhere in the Amended HCP (e.g., page xi in the Executive Summary) that as of January 2020, there are in excess of seven million dollars available to implement conservation actions such as this one. The Council does not recognize this as a measure that will offset development of the Northern Corridor, because existing science should have dictated this action be implemented already. We feel that this is an important consideration, as this conservation action is in a section that is intended to address the Changed Circumstance. There is no conservation credit in linking this overdue action with development of the Northern Corridor, as there is no clear nexus between the Changed Circumstance and this long overdue action.</p>	<p>The USFWS will consider the effects of the Northern Corridor and associated conservation measures in the Biological Opinions and Findings document prior to determining whether to issue the ITP.</p> <p>Refer also to response to A.51-91.</p>
A.51-270	<p>HCP 235 135 9.1.1.2</p> <p>Text: “The County will also provide funding to support the construction, maintenance, and/or monitoring of tortoise-crossing culverts under Cottonwood Road.”</p> <p>Comment: Maintenance, monitoring, and adaptive management (we note no commitment to adaptive management of culverts) are needed after construction to ensure that this action is effective in accomplishing its purpose. This is another example of the Applicants’ failure to fully fund implementation of conservation actions including monitoring, maintenance, and adaptive management.</p>	<p>The Amended HCP describes the adaptive management and monitoring program in Sections 6.3.3 and 9.1.1.2. The Amended HCP also states: with the mutual agreement of the County and the HCP Partners, these funds may instead be adaptively redirected to support postconstruction monitoring, improvements or adjustments, and/or maintenance of these [Cottonwood Road passages] or other tortoise passages in Washington County.</p> <p>Refer also to response to A.51-93.</p>

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A.51-271	<p>HCP 236 137 9.1.4</p> <p>Comment: Another Changed Circumstance from the Northern Corridor would be the frequency of fire in the Reserve. As presented earlier, Brooks and Matchett (2006) reported car fires along roadsides are frequent causes of fires in the Mojave Desert. The County should develop and implement conservation actions, mitigation, and appropriate funding to efficiently and effectively implement actions to prevent fires, quickly extinguish fires, and quickly restore native habitat for areas in the Reserve that may experience fires in the future. For example, if constructed, multiple phone call stations could be constructed along the Northern Corridor to facilitate early reporting of fires in adjacent habitats. Restoration activities should also occur for areas that have experienced fire in the Reserve. Some of these actions include substantial reduction in nonnative plant species, increased law enforcement and education about this issue, modifications to the fire management plan to address ways these types of fires can be prevented and quickly extinguished, and effective habitat restoration of burned areas using only native plants (both woody perennial and herbaceous annual plants). The commitment in this section of the HCP only deals with one aspect of this Changed Circumstance, which is restoration. It is far less expensive economically and ecologically to prevent fires than to fight a fire and restore areas after a fire. Consequently, this Changed Circumstance should identify and adequately fund fire prevention in and near the Reserve with implementation of on-the-ground management actions, law enforcement, and public education, and prohibitions of activities such as campfires, firework, etc. in the Reserve. During high fire danger the Reserve should be closed to public access.</p>	<p>The Amended HCP further describes fire management commitments in Section 6.3.2.8, Reserve Habitat and Fire Management Guidelines. Wildfire is also included as a changed circumstance in Section 9.1.1 of the Amended HCP. Appendix D of the Amended HCP is the Habitat and Fire Management Guidelines for the Reserve, which would be followed and includes consideration for habitat restoration and invasive species. Lands in the Reserve managed by BLM and the State would be managed for fire under their authorities.</p> <p>Refer also to response to A.51-91.</p>
A.51-272	<p>HCP 237 inclu 137 9.1.4</p> <p>Comment: The first paragraph in this section that summarizes potential incidences of wildfire in the Reserve fails to divulge that roads, particularly highways, are what Brooks and Matchett (2006) designate as “Ignition Point Locations,” as mapped in Figure 1 on page 151 of their document. This is an essential part of the analysis that is missing, as development of the Northern Corridor, itself, based on these data and research, is likely to contribute to the incidence of fire in the Reserve in a location where that threat is absent but for the new freeway. Clearly, this section in the Amended HCP needs to be modified to include the ramifications of two wildfires occurring in July 2020, including the Turkey Farm Road and Cottonwood Trail fires, as existing Changed Circumstances since drafting the document.</p>	<p>The Amended HCP includes a discussion of wildfire in the Reserve and acknowledges that this is an increasing threat to the Mojave desert tortoise and its habitat.</p> <p>Refer also to response to A.51-91.</p>

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A.51-273	<p>HCP 238 129 139 9.1.1 9.1.7</p> <p>Comment: Since Section 9.1.1 of the Amended HCP claims that it intends to enlarge the Reserve by 10% (redesignating the satellite reserve in Zone 6 is implied), shouldn't Section 9.1.7 reveal that it is possible that SITLA lands in Zone 6 can still be purchased and developed? It is not clear from our reading of the Amended HCP or the DEIS that SITLA is expressly prohibited from selling these lands even if within the proposed Zone 6 satellite reserve. Please confirm in the Final EIS.</p>	<p>The Amended HCP clarifies that SITLA is not prohibited from selling lands in Zone 6 for other purposes and that the Amended HCP does not expressly prohibit uses of the Reserve that are not Covered Activities.</p> <p>However, SITLA as a new HCP Partner, will sign the Implementing Agreement and commits to allowing its unacquired Reserve lands to be managed by the County for the benefit of the Mojave desert tortoise and for allowing the BLM to acquire its lands as opportunities become available.</p> <p>Additionally, note that if proposed Reserve Zone 6 is established, the ITP issued to Washington County would not authorize take of Mojave desert tortoise from development activities in Reserve Zone 6.</p>
A.51-274	<p>HCP 239 139 9.1.6</p> <p>Text: "Therefore, this Changed Circumstance will be triggered if a new MDT disease is detected within the Plan Area or if the observed incidence of URTD among MDT Reserve-wide exceeds 25% of the population."</p> <p>Comment: According to the 2016 HCP Handbook, "Changed circumstances are circumstances that can be reasonably anticipated." They can be anticipated because of past and current scientific knowledge about the species and the Plan Area. This section only describes two of the recently identified diseases that occur in the MDT. It should include all known diseases of the MDT (e.g., herpesvirus, shell disease, etc.). Otherwise this selected approach appears to be arbitrary and purposefully ignoring some diseases in the MDT and should not be considered an informed Changed Circumstance.</p>	<p>Section 9.1.6 of the Amended HCP clarifies this changed circumstance applies to any previously unreported disease of the UVRRU population of Mojave desert tortoise.</p> <p>Refer also to response to A.51-91.</p>

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A.51-275	<p>HCP 240 139 9.1.6</p> <p>Text: “The County, UDWR, and the USFWS will meet and confer to discuss alternative translocation options and possible treatment for affected tortoises, subject to financial constraints and practicability.”</p> <p>Comment: Thus, in dealing with the Changed Circumstance of disease for the tortoise, the Permittee is only concerned about the tortoises it needs to move to allow for development. There is no Changed Circumstance to implement appropriate management actions for MDT in the Reserve that are outside translocation zones. We are not sure how the Permittee’s commitment in this Changed Circumstance is minimizing and mitigating the impacts of the taking for tortoises in the development areas. Please add a commitment of what minimization and mitigation action the Permittee will implement if “a new MDT disease is detected within the Plan Area (this includes the Reserve) or if the observed incidence of URTD among MDT Reserve-wide exceeds 25% of the population.”</p> <p>In addition, why was 25% of the population selected? This selected number appears to be arbitrary, as we found no epidemiological reference to support it. Please revise this Changed Circumstance to reflect what is known about current tortoise diseases as they all suppress the tortoise’s immune system and leave it more vulnerable to mortality from the disease of other sources of mortality (i.e., it is a contributing factor to mortality).</p>	<p>Section 9.1.6 of the Amended HCP includes the changed circumstance of any previously unreported diseases that may affect desert tortoise populations in the Reserve. Section 9.1.6 of the Amended HCP also commits that the County will consult with the USFWS and UDWR about the necessity of suspending Mojave desert tortoise translocations into the Reserve. The County, UDWR, and the USFWS will meet and confer to discuss alternative translocation options and possible treatment for affected tortoises, subject to financial constraints and practicability.</p> <p>Refer also to response to A.51-91.</p>
A.51-276	<p>HCP 241 141 9.2</p> <p>Comment: Although the Amended HCP has not convinced us that the Northern Corridor is a Changed Circumstance (because the HCP Partners have postponed ITP issuance for four years for the sole purpose of developing this compromise, and our understanding is that Changed Circumstances are beyond the control of the HCP Partners), we fully believe that the Northern Corridor is an Unforeseen Circumstance relative to the 1995 HCP, which until it is revised, remains enforce (e.g., the words “northern corridor” do not appear in the 503-page 1995 HCP, unless it was referred to under a different title?). We support our conclusion based on the clauses used in the second paragraph on page 141 of the Amended HCP: The Northern Corridor, which was not envisioned by the 1995 HCP represents “...modifications within conserved habitat areas” and it expressly does not “...maintain the original terms of the conservation plan to the maximum extent possible.” So, please explain why the Northern Corridor is not an Unforeseen Circumstance relative to the 1995 HCP.</p>	<p>Changed circumstances are defined in the No Surprises rule and USFWS HCP Handbook (USFWS and NMFS 2016) as “changes in circumstances affecting a species or geographic area covered by [an HCP] that can reasonably be anticipated by [plan] developers and the Services and that can be planned for (e.g., the listing of new species, or a fire or other natural catastrophic event in areas prone to such events)” (50 CFR 17.3). Based on this definition, the Northern Corridor is included in the Amended HCP as a changed circumstance.</p>

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A.51-277	<p>HCP 242 141 9.2</p> <p>Comment: The HCP Handbook says “The ‘unforeseen circumstances’ section of the HCP should discuss the process for figuring out how to address those future changes in circumstances surrounding the HCP [the USFWS] may not reasonably anticipate.” We found no such discussion in this section of the Amended HCP. We found one sentence that said “The USFWS shall notify the County in writing of any Unforeseen Circumstances the USFWS believes to exist.” The County can and should include a discussion of the process they will conduct with the USFWS and others to address unforeseen circumstances. As stated in the 2016 Handbook, “There may be other approaches [the USFWS] can use to respond to the needs of the affected species, including increasing the effectiveness of the HCP’s operating conservation program (without raising costs), Government actions [the USFWS] can take to meet species needs, or voluntary conservation measures the permittee can take.” We request a discussion of the process be added to the Amended HCP.</p>	<p>Unforeseen circumstances are defined as changes in circumstances affecting a species or geographic area covered by a conservation plan that could not reasonably have been anticipated by plan developers and the USFWS at the time of the negotiation and development of the plan and that result in a substantial and adverse change in the status of the covered species (50 CFR 17.3). The USFWS bears the burden of demonstrating that unforeseen circumstances exist using the best available scientific and commercial data available while considering certain factors (50 CFR 17.22(b)(5)(iii)(C) and 17.32(b)(5)(iii)(C); 50 CFR 222.307(g)(3)(iii)).</p> <p>Refer also to responses to A.51-252 and A.51-276.</p>
A.51-278	<p>HCP 243 143 10.2</p> <p>Comment: For the purposes of full disclosure, we ask that the following sentence be modified to indicate that the Northern Corridor would also result in the adverse modification of designated tortoise Critical Habitat, or, at least, the USFWS needs to consider this aspect of the Changed Circumstance (see suggested wording in bold font). “Therefore, even under this alternative, the Northern Corridor involves Federal actions that may affect, and would be likely to adversely effect, the MDT (with incidental take and adverse modification of Critical Habitat) and would trigger the need for formal interagency consultation under Section 7 of the ESA.”</p> <p>“The Service [USFWS] expects that proposed actions that are inconsistent with land management recommendations for DWMAs in the Draft Recovery Plan would likely be considered to adversely modify critical habitat. Proposed actions that are consistent with the recommendations within the Draft Recovery Plan would not be likely to result in destruction or adverse modification of critical habitat (59 Federal Register 26:5835).”</p>	<p>The USFWS will evaluate the effects to the Mojave desert tortoise from the proposed Northern Corridor and from the Amended HCP as part of ESA Section 7 consultations with BLM (if the BLM initiates consultation on an alternative crossing the Red Cliffs Desert Reserve and NCA) and through intra-service consultation. The USFWS will evaluate the adverse effects to Mojave desert tortoises from both actions and determine whether the adverse effects result in jeopardy to the species, as defined in 50 CFR 402.02. For issues regarding HCP content, refer to response to A.51-93.</p>

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Letter #- Comment # or Public Concern Statement #	Comment	Response
A.51-279	<p>Development Protocols, Appendix A to the Amended HCP 244 C-5 App A</p> <p>Comment: We appreciate that the Development Protocols as they pertain to tortoise surveys, findings, and dispositions are well written and should prove effective. With regards to the following sentence on page C-5, we recommend adding the bold regular-font words for clarification: “A qualified biologist shall excavate any winter dens or burrows which the HCP Biologist has concluded cannot be avoided and will be disturbed by construction, checking for nests and viable eggs as the burrows are excavated.”</p>	<p>If an ITP is issued by the USFWS, desert tortoise clearance protocols would be amended within 5 years of ITP issuance and other clarifications can be made at that time through the adaptive management process. Refer also to response to A.51-91.</p>
A.51-280	<p>Development Protocols, Appendix A to the Amended HCP 245 C-6 App A</p> <p>Comment: With regards to the following prescription, “GC-11 The area shall be restored as determined during the preconstruction process, consistent with restoration/reclamation standards approved by the Washington County Commission. [Document in progress],” in 2016 the Council completed Best Management Practices in a peer-reviewed document relative to restoration of tortoise habitats (Abella and Berry 2016), and has included those BMPs for consideration and use by the HCP Partners in Attachment E.</p>	<p>If an ITP is issued, desert tortoise clearance protocols would be amended within 5 years of ITP issuance and other clarifications can be made at that time through the adaptive management process. Refer also to response to A.51-91.</p>
A.51-281	<p>Development Protocols, Appendix A to the Amended HCP 246 C-7 App A</p> <p>Comment: We suggest that the following statement on page C-7 be supplemented with the bold-font wording that follows, “If tortoises are found in the drainage area and are determined to be in harm’s way, a qualified biologist will move the tortoises to a sheltered location within 250 feet outside the wash. If there is a burrow of an adult tortoise that will be flooded, a knowledgeable biologist should consider the potential for the occurrence of a viable tortoise nest and take necessary precautions (e.g., reroute the flow water or excavate the burrow) to avoid losing the eggs.”</p>	<p>If an ITP is issued, clearance protocols would be amended within 5 years of ITP issuance and other clarifications can be made at that time through the adaptive management process. Refer also to response to A.51-91.</p>

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<b>Letter #- Comment # or Public Concern Statement #</b>	<b>Comment</b>	<b>Response</b>
A.51-282	<p>Development Protocols, Appendix A to the Amended HCP 247 C-4 C-8 App A Comment: It is advisable that the PC-6 prescription given on pages C-4/C-5 with regards to an educational brochure and signed affidavit also be applied to prescription M-2 on page C-8 as it pertains to an annual refresher course administered for maintenance personnel.</p>	<p>If an ITP is issued, clearance protocols would be amended within 5 years of ITP issuance and other clarifications can be made at that time through the adaptive management process. Refer also to response to A.51-91.</p>
A.51-283	<p>Development Protocols, Appendix A to the Amended HCP 248 C-9 App A Comment: With regards to freshly dead tortoises, it is advisable that UDWR and/or USGS be contacted to see if they can use fresh specimens for research. If this recommendation is followed, it would be appropriate to add the nearest USGS office (likely Las Vegas area?) contact information to page C-12. Also, since the HCP is intended to function for 25 years, we question if the inclusion of named biologists is prudent? Finally, we recommend that the section clarify the disposition of dead animals (as stated, final disposition pertains only to injured, living tortoises). Leaving freshly-dead tortoises in place may attract predator-scavengers.</p>	<p>If an ITP is issued, clearance protocols would be amended within 5 years of ITP issuance and other clarifications can be made at that time through the adaptive management process. Refer also to response to A.51-91.</p>
A.51-284	<p>Development Protocols, Appendix A to the Amended HCP 249 C-13 App A Comment: With regards to the clearance survey protocol revisions since 1997 given on page C-13, we recommend that Chapter 6 in the USFWS (2009) Field Manual be consulted to be sure the County is implementing the most recent guidance.</p>	<p>If an ITP is issued, clearance protocols would be amended within 5 years of ITP issuance and other clarifications can be made at that time through the adaptive management process. Refer also to response to A.51-91.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.81-285	<p>Red Cliffs Desert Reserve Public Use Plan, Appendix B to the Amended HCP 250 14 App B</p> <p>Text: “The Red Cliffs Desert Reserve Public Use Plan is designed to be flexible and subject to revision through adaptive management. After management prescriptions are implemented, monitoring will ensure the success of habitat management by evaluating and updating prescriptions when necessary to continue to meet conservation goals. If the Plan fails to meet conservation goals, the County, BLM and Reserve administrators will assess and refine management prescriptions using adaptive management provisions on page 17.”</p> <p>Comment: Because the conservation goals of the 1995 HCP have not been met (i.e., resulted in stable or increasing populations of tortoises within the Reserve), and this has been known for several years (e.g., results of bi-annual desert tortoise surveys by UDWR since 1998; see Attachment B), please provide information the HCP regarding what adaptive management actions have been implemented to address the results of each monitoring effort for the MDT/tortoise habitat.</p>	<p>If an ITP is issued, clearance protocols would be amended within 5 years of ITP issuance and other clarifications can be made at that time through the adaptive management process.</p> <p>In addition, Table 15 of the Amended HCP shows the conservation accomplishments of the HCP Partners since 1995, many of which occurred through an adaptive management process. Table 15 also includes specific monitoring and adaptive management accomplishments since 1995.</p> <p>Refer also to response to A.51-91.</p>
A.51-286	<p>Red Cliffs Desert Reserve Public Use Plan, Appendix B to the Amended HCP 251 25 App B</p> <p>Text: “Members of the Technical Committee and the Public Use Planning Team have recognized and recommended that a human impact monitoring plan be launched after careful analysis and design that both quantifies and documents human impacts in the Reserve.”</p> <p>Comment: Since it was identified in the 2000 PUP, 20 years ago, we question why this monitoring plan is not included in the 2020 HCP.</p>	<p>If an ITP is issued, the PUP would be updated within 5 years of ITP issuance in connection with the Northern Corridor changed circumstance and other clarifications can be made at that time through the adaptive management process. Table 15 of the HCP describes monitoring efforts regarding human impacts in the Reserve. In addition, the County has a volunteer Trail Stewards program to assist with monitoring human impacts in the Reserve (Amended HCP Section 6.3.2.7).</p> <p>Refer also to response to A.51-91.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.51-287	<p>Red Cliffs Desert Reserve Public Use Plan, Appendix B to the Amended HCP 252 29 App B Text: “The HCP Administrator, in coordination with Reserve managers, USFWS, UDWR, and Wildlife Services, can authorize appropriate persons or groups to conduct programs to manage predators, nuisance animals, and exotic, noxious plant and wildlife species. Examples include authorizing qualified hunters to control coyote, mountain lion, raven and beaver populations, or authorizing the use of herbicides for noxious weed control. Administrative control of certain species is important for protecting tortoise populations, protecting other beneficial wildlife and plant species, and for human safety reasons.” Comment: Since this statement was taken from the 2000 PUP, the Applicants recognized the threats to the MDT cause by excessive predation and invasive plants 20 years ago. Please explain why management of these threats is not included in the 2020 HCP. Please add these as biological objectives and specific conservation actions.</p>	<p>The Amended HCP (Section 6.3.2.7) adopts the continued use of the PUP, thereby recognizing the continued impacts associated with these threats to the desert tortoise. If an ITP is issued, the PUP would be updated within 5 years of ITP issuance in connection with the Northern Corridor changed circumstance and other clarifications can be made at that time through the adaptive management process. Refer also to response to A.51-93.</p>
A.51-288	<p>Red Cliffs Desert Reserve Public Use Plan, Appendix B to the Amended HCP 253 33-46 App B Comment: The PUP, adopted in 2000, should be revised based on information collected about threats to the MDT and their impacts on tortoise/tortoise habitat. For example, the 2000 PUP allows for campfires in the lowland zone of the Reserve but in the upland zone, this area is subject to closures during times of high fire danger. Because of the recent fire history in the lowland zone, it appears this closure should apply to the lowland zone too. Organized and Competitive Events – “Organized competitive and recreational sporting events found to be low-impact to habitat are only permitted in the Reserve with a special use permit issued by the BLM or State Parks in coordination with the HCP Administrator.” We were under the impression that these events were no longer allowed in the Reserve. If correct, please update the 2000 PUP to reflect current management practices and restrictions. Otherwise, this incorrect document should not be included as an appendix of the 2020 HCP. It is confusing.</p>	<p>If an ITP is issued, the PUP would be updated within 5 years of ITP issuance in connection with the Northern Corridor changed circumstance and other clarifications can be made at that time through the adaptive management process. Federal lands within the Reserve are managed through the Red Cliffs NCA RMP. Management actions within the NCA allow for competitive running and bicycling events on roads in the NCA if they meet certain criteria (refer to REC-39 in the Red Cliffs NCA Approved RMP). Refer also to response to A.51-91.</p>

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A.51-289	<p>Red Cliffs Desert Reserve Public Use Plan, Appendix B to the Amended HCP 254 65 App B</p> <p>Comment: We were unable to find Appendices A through F of the PUP. Please include the following in the Amended HCP: Designated Roads Within the Red Cliffs Desert Reserve; HCP Directives by Zone; Recreation Ecology and Human Impacts to Resources: A Primer, the Ecology of the Desert Tortoise; Impacts of Recreation on the Desert Tortoise and Other Wildlife in the Red Cliffs Desert Reserve; and Comments on the Public Use Plan Draft March 14, 2000. This information is relevant to the development of the 2020 HCP.</p>	<p>If an ITP is issued, the PUP would be updated within 5 years of ITP issuance in connection with the Northern Corridor changed circumstance and other clarifications can be made at that time through the adaptive management process.</p> <p>Appendices A through F have been included in the Amended HCP submittal to USFWS.</p> <p>Refer also to response to A.51-91.</p>
A.51-290	<p>Reserve Habitat and Fire Management Plan, Appendix D to the Amended HCP 255 App D</p> <p>Comment: Although written in 2019, it appears that the authors did not consult with persons who have studied fires in the southwestern deserts of the United States. We contend that past methods for containing fires in one environmental area (e.g., fire breaks) are not appropriate or effective in a desert fire fueled by dried annual grasses and wind. We suggest consulting with experts (e.g., the U.S. Geological Survey's Wildland Fire Science in Forests and Deserts, etc.) to determine the most effective methods to prevent the occurrence and spread of fire in the Mojave Desert and effective restorations efforts and updating this plan periodically as research continues to provide new information.</p>	<p>If an ITP is issued, fire protocols would be amended within 5 years of ITP issuance and other clarifications can be made at that time through the adaptive management process.</p> <p>Refer also to response to A.51-91.</p>
A.51-291	<p>Translocation Management Plan, Appendix E to the Amended HCP 256 App E</p> <p>Please see Comment 197 above, with regards to Section 6.3.2.4 Tortoise Translocation of the 2020 HCP.</p>	<p>If an ITP is issued, protocols would be amended within 5 years of ITP issuance and other clarifications can be made at that time through the adaptive management process.</p> <p>Refer also to response to A.51-91.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-315	<p>H.2 Washington County - Item 2 (Applicable under Environmental Impact Statement Alternatives 2, 3, and 4)</p> <p>H.2.1 Washington County Resource Management Plan: Land - Livestock Grazing 3.a.ii</p> <p>"Washington County opposes any loss of AUMs absent scientific proof of resource degradation."</p> <p>Alternatives for livestock grazing management on BLM-administered lands within Zone 6 range from maintaining all allotments as available for livestock grazing to designating all allotments as unavailable. There is no current "scientific proof of resource degradation" specifically due to livestock grazing within Zone 6. If allotments are made unavailable through the St. George Field Office RMP amendment, it would be inconsistent with the Washington County RMP. However, HCP Section 9.1.1.1, Add Reserve Zone 6, states: "Washington County and the HCP Partners will coordinate with the holders of active grazing permits applicable to Reserve Zone 6 and negotiate the acquisition of such grazing permits from willing sellers. However, like Reserve land acquisitions, no entity will be required or compelled to sell, donate, transfer, purchase, or receive interest in lands for the purpose of this Amended HCP. Nor does this establish a timetable for completing grazing permit acquisitions for Reserve Zone 6. Nevertheless, Washington County and the HCP Partners have demonstrated the ability to successfully and expeditiously negotiate such transactions. This conservation action will benefit both MDT and listed plants within Reserve Zone 6. Estimated cost over 25 years = \$259,540." While a reduction in the per animal unit month (AUM) that is not linked to resource degradation may be inconsistent with the Washington County RMP, an exception by the County Commission would officially be documented through the approval of the Amended HCP it has prepared and the Chairperson's signature on the accompanying Implementation Agreement.</p> <p>1. Reference the scientific studies that have been conducted. If the studies exist, reference the evidence of no degradation. If they do not exist, their lack of existence cannot be used to demonstrate Zone 6 mitigation ability.</p>	<p>Adjustments to livestock grazing are analyzed in more detail in Section 3.5 and 3.21 of the EIS.</p> <p>Refer also to response to A.51-91.</p>

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H.65-316	2. There should be but there is not plan to reduce grazing that damages habitat. This indicates Zone 6 cannot be used for mitigation.	As stated in Section 9.1.1.1.4 of the Revised HCP, if the changed circumstance is triggered, the County and the HCP Partners will coordinate with the holders of active grazing permits applicable to Reserve Zone 6 and negotiate the acquisition of such grazing permits from willing sellers. As described in the EIS, the BLM would also take actions to reduce the potential impacts of livestock grazing in proposed Reserve Zone 6. Refer also to Section 3.21 of the EIS and response to A.51-91.
H.65-317	<p>H.3 Washington County - Item 3 (Applicable under Environmental Impact Statement Alternatives 2, 3, and 4)</p> <p>H.3.1 Washington County Resource Management Plan: Land - Livestock Grazing 3.b.iv</p> <p>"AUMs within the county remain at or above current levels unless a scientific need for reduction is demonstrated to the satisfaction of the county."</p> <p>See response to Washington County- Item 2.</p> <p>There apparently is no plan to perform the necessary scientific studies and even if there were, and if damage was shown, the county is under no obligation to correct it.</p> <p>This is another proof of Zone 6 being incapable of mitigating damage to the RCNCA.</p>	Refer also to Section 3.21 of the EIS and responses to A.51-91 and H.65-316.

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-337	<p>from pg 210 of comment letter</p> <p>1. The Draft HCP Violates the ESA Best Available Science Requirement And NEPA's Requirement to Address Significant New Information</p> <p>Issue:</p> <p>1. The draft HCP tortoise population and habitat information, especially as it relates to RCDR Zone 3, is not reliable or accurate because it does not include massive recent fire damage and significant associated tortoise mortality and habitat loss.</p>	<p>The USFWS is incorporating best available information as it becomes available.</p> <p>Reporting on effects of fire on tortoise is currently being compiled by local biologists (BLM and UDWR) and will be considered as available. Data that can be related to population-level effects of fires (past and recent) to tortoise population are being collected through various ongoing monitoring efforts and will be considered and incorporated into HCP through the adaptive management program. The impacts of fire on the Reserve and tortoise population to date is included in the EIS and will be incorporated into appropriate Section 7 consultation documents to the extent that information is available.</p> <p>Refer also to response to FIRE-01.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-338	<p>from pg 211 of comment letter</p> <p><b>1. The Draft HCP Violates the ESA Best Available Science Requirement And NEPA's Requirement to Address Significant New Information</b></p> <p>Issue:</p> <p><b>2. The DEIS analysis is inadequate because it fails to address the "significant new circumstances or information" relating to massive recent fire damage and significant associated tortoise mortality and habitat loss.</b></p> <p>See discussion above: # 1 The draft HCP tortoise population and habitat information, especially as it relates to RCDR Zone 3, is not reliable or accurate because it does not include massive recent fire damage and significant associated tortoise mortality and habitat loss. It is insufficient to consider this new information only in the final environmental impact statement (EIS), as BLM asserted during its July 21, 2020 public meeting. Deferring the consideration of significant new information - like the impacts of the Turkey Farm Road and Cottonwood Trail wildfires - until the final EIS will unavoidably taint the final product by ignoring key baseline information needed to inform the analysis of the affected environment and environmental consequences, and otherwise limiting consideration of reasonable alternatives and appropriate public engagement. In these circumstances, NEPA requires an agency to consider significant new circumstances or information regarding the impacts of the Turkey Farm Road and Cottonwood Trail wildfires by preparing a supplemental draft environmental impact statement and submitting this supplemental draft EIS for public notice and comment. See 40 C.F.R. § 1502.9(c).</p>	Refer to response to H.65-337.
H.65-339	<p>from pg 211 of comment letter</p> <p><b>1. The Draft HCP Violates the ESA Best Available Science Requirement And NEPA's Requirement to Address Significant New Information</b></p> <p>Issue:</p> <p><b>3. The county cannot carry forward any so-called "unused authorized incidental take" from the original HCP.</b></p>	<p>The USFWS is required to complete an intra-service Section 7 consultation on permit issuance for the Amended HCP, which will use the best available science.</p> <p>Refer to responses to A.44-5 and A.51-91.</p>

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H.65-340	<p>In its Draft HCP, Washington County claims that its application for a renewed or amended Incidental Take Permit will only "extend. previously authorized but as yet unutilized incidental take." Draft HCP at 51. This is wrong as a legal and factual matter.</p> <p>First, the 1995 ITP allowed for the take of 1,169 MDT between March 1996-March 2016. Under the terms of the earlier HCP and ITP, incidental take of MDT was limited both numerically (1,169) and temporally (through March 2016). Thus, upon the expiration of the IT timeframe and/or the meeting of the IT upper limit, the ITP limit was reached, and no further take is authorized or permitted. There is simply no accounting for authorized but unutilized take.</p>	Refer to responses to A.44-5 and A.51-91.
H.65-341	<p>In addition, Washington County's application to carry forward its so-called "unused" incidental take makes no logical sense. The Draft HCP states that the county is applying for the incidental take of MDT across 66,301 acres of occupied and potential MDT habitat, a full 22,755 more acres than were authorized in the 1995 HCP/ITP which permitted the incidental take of 1,169 MDT across 12,264 acres of occupied desert tortoise and 31,282 acres of potential habitat. 1995 HCP at vi.</p>	Refer to responses to A.44-5 and A.51-91.

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H.65-342	<p>The Draft HCP notes that development activities in and around the HCP take areas accounted for the take of 776 MDT, which represents almost 67% of incidental take permitted under the 1995 HCP/ITP. Draft HCP at 51. The Draft HCP then contorts this data in two ways in supporting its claim that there is "unused " incidental take. First, the Draft HCP downplays the significance of the 776 MDT already subject an incidental take, by arguing, for the first time, that this IT limit was intended to only apply to "adult individuals," and not juvenile or hatch lings. Draft HCP at 51. According to this argument, since 35% of the MDT taken were juvenile and hatchlings, these should not be applied to the take limit under the 1995 HCP/ITP. This claim is easily countered by the fact that the 1995 HCP applied this take limit to 1,169 desert tortoise individuals or "animals," and nowhere does the HCP or ITP expressly exclude juveniles or hatchlings as the Draft HCP now claims. 1995 HCP at vi and 130. See also ITP at 2 (unpaginated) ("The Permittee is authorized to take. up to 1,169 desert tortoises. "). indeed, nowhere in either the 1995 HCP or the ITP does Washington County expressly limit the incidental take limit to adult MDT, and it is arbitrary and capricious for Washington County to seek to reinterpret its take threshold now. Thus, at best, the starting point for defining any unused or unutilized incidental take starts at the fact that 67 % of the permissible incidental take limit of 1,169 MDT has been used.</p> <p>Second, the Draft HCP fails to show that the conservation program can fully offset the impacts of the taking despite the county's claim:                      "The impacts of take authorized with the Original ITP and reauthorized with the Extended/ Amended ITP are fully offset by the conservation program of the 1995 HCP (see Chapter 6.2.1 ). This conservation program is carried forward and expanded in this Amended HCP." (Draft HCP at 99).</p>	<p>The amount of take authorized under the 1996 ITP, regardless of life stage, was not exceeded.                      Refer also to responses to A.44-5 and A.51-91.</p>
H.65-343	<p>The Draft HCP facilitates development of the Northern Corridor, which undermines conservation of MDT within the Red Cliffs Desert Reserve. Unutilized take cannot be carried forward based on continued implementation of a conservation program that is degraded and jeopardized by development of a highway through the Reserve in exchange for a promised satellite reserve of questionable condition. Washington County cannot carry forward unutilized take because the county has failed to demonstrate that the conservation program envisioned in the 2020 HCP can fully offset the impacts of the take.</p>	<p>Refer to responses to A.51-96, A.44-5, and A.51-91.</p>

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H.65-344	<p>Third, the FWS previously found that the NCH would violate the HCP. In June 2007, FWS sent a letter to the Washington County Commission clearly stating that the Northern Corridor Highway was incompatible with the Washington County HCP and Desert Tortoise Recovery Plan:</p> <p>"As a result of these existing pressures and the already small size of the reserve, current proposals in the Vision Dixie process to construct a "Northern Corridor" transportation route through the RCDR would severely threaten the survival and recovery of the desert tortoise within this recovery unit. Any transportation corridor would further increase the risk to the desert tortoise population and accelerate its decline by increasing fire frequency, noise disturbance, increased human access, and direct mortality along the corridor.</p> <p>We appreciate Washington County's need to plan for and steer the direction of urban growth. However, scenarios routing transportation corridors through the RCDR were considered and eliminated during the original development of Washington County's Habitat Conservation Plan due to their incompatibility with maintaining the tortoise population within the reserve. Construction of a new road or highway through the RCDR conflicts with the desert tortoise recovery plan and is inconsistent with the terms of the county's Habitat Conservation Plan and incidental take permit. Therefore, it will be important to develop alternatives that avoid the need for a northern corridor through the reserve."</p> <p>FWS 2007 Letter - "Fragmentation of the Red Cliffs Desert Reserve"</p> <p>Therefore, the county cannot attempt to support an application for unutilized take with an HCP that is violated by a four-lane highway.</p>	<p>The incidental take that was permitted previously in the 1995 HCP and not used will not be carried forward. If the USFWS decides to issue an ITP for this application, the scope and extent of the authorized taking will be clearly identified in a new permit. The previously issued permit will no longer be valid. In addition, the June 2007 letter was written over 10 years before the conservation strategy in the Amended HCP was developed. USFWS will evaluate the Amended HCP, Northern Corridor, and conservation strategy in a Section 7 consultation with BLM, and intra-service Section 7 consultation and Findings document before making a decision of whether to issue an ITP.</p>

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H.65-345	<p>from pg 213 of comment letter</p> <p>1. The Draft HCP Violates the ESA Best Available Science Requirement And NEPA's Requirement to Address Significant New Information Issue:</p> <p>4. Washington County Cannot Rely on a 25-year old EIS and BO to support its new incidental take limit.</p> <p>The Draft HCP falsely claims that it remains consistent with the 1995 EIS and 1996 BO: "This Amended HCP adopts, with clarifications, the Covered Activities of the 1995 HCP. This Amended HCP also adopts the conservation measures as the 1995 HCP, thereby extending (with clarifications, as appropriate) the implementation of the Washington County HCP through the Renewed/ Amended ITP Term. Therefore, the implementation of this Amended HCP remains consistent with the analysis in the 1996 Biological Opinion (FWS) 1996) and 1995 Environmental Impact Statement (FWS 1995)." Draft HCP at 60. But, much has changed in the Red Cliffs Desert Reserve and UVRU since the 1995 Environmental Impact Statement and 1996 Biological Opinion were issued, and Washington County cannot rely on this now long-outdated and stale analysis. First, new science on the impacts of development to MDT has been released. Rapid growth in Washington County since 1995 has led to somewhere between 26% and 46% of the occupied MDT habitat identified in the 1995 HCP being developed (Draft HCP at 52). New studies show MDT populations are depressed near areas with even relatively small percentages of development. In "Quantifying development to inform management of Mojave and Sonoran desert tortoise habitat in the American southwest," Carter et. all (2020) considered the impacts of development on the MDT: "Development results in the direct loss of habitat for desert tortoises and other wildlife species as well as multiple indirect effects (Dale et al. 2005, Hansen et al. 2005, Leu et al. 2008). Housing development and associated infrastructure remove and alter soil and vegetation, increase noise and light (Barber et al. 2011, Kight &amp; Swaddle 2011 ), subsidize predators (McKinney 2002), alter nutrient and disturbance regimes, and expand diffuse human activities into surrounding natural areas (Leinwand et al. 2010). Roads fragment habitat (Ibisch et al. 2016), lead to direct wildlife mortality (von Seckendorff Hoff &amp; Marlow 2002, Boarman &amp; Sazaki 2006, Colino-Rabanal &amp; Lizana 2007), are a vector for the spread of nonnative invasive plants (Davies &amp; Sheley 2007, GavierPizarro et al. 2010), increase the presence of subsidized predators (Boarman et al. 2006, Esque et al. 2010), and provide access to previously remote areas." Carter et. all (2020)</p>	Refer to response to A.51-94.

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H.65-346	<p>The authors generated a development index for MDT habitats and found that very few MDT are found within 1 kilometer of areas that are 10% developed: "We used 13 years of Mojave desert tortoise monitoring data (4732 observations) to inform the levels and spatial scales at which tortoises may be affected by development. Most (66-70%) desert tortoise habitat has some development within 1 km. There were few detections of either live or dead animals above a development index value of 10% (meaning that 10% of the area within 1 km of that location has been altered by development, Fig. 1 ). While there was a mix of low encounter rates across all levels of the development index (Fig. 1), the maximum encounter rates were negatively associated with development level, becoming essentially zero for live animals above an index value of 10% (Fig. 2)." Id. at 172.</p> <p>This study has major implications for MDT in the UVRU and must be considered in the Draft HCP and associated EIS and BO. The Reserve is encircled by the cities of Ivins, St. George, Washington, Leeds and Hurricane. What are the impacts of this development to designated critical habitat for MDT within 1 km of the Reserve boundary? Second, much of the MDT habitat in the proposed Zone 6 is located within 1 km of areas that are 10% or more developed. How are the large developments on the eastern edge of Zone 6, and the 150-mile network of roads and trails within Zone 6, impacting MDT? Third, what are the impacts of development in the larger permit area to MDT? The 1995 Environmental Impact Statement and 1996 Biological Opinion do not address any of these impacts. To ensure that take is fully offset, the Draft HCP must address the impacts of development on MDT in the permit area since 1995.</p>	Refer to response to A.51-183.

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H.65-347	<p>Second, Mojave desert tortoise populations have declined steadily since 1995:</p> <ul style="list-style-type: none"> <li>• MDT have declined by 37% range wide between 2004 and 2014. (DEIS Table 3.5-2).</li> <li>• MDT in the UVRU declined by 24.3% between 2004 and 2014. (DEIS at 3-47).</li> <li>• MDT in the Reserve declined by 41% between 1999 and 2020. (DEIS at 3-48).</li> </ul> <p>The 1995 Environmental Impact Statement and 1996 Biological Opinion do not account for these declines. Neither do they account for the catastrophic wildfires (nearly half of all wildfires in the Reserve have been human caused, including the recent Turkey Farm Road and Cottonwood Trail Fires, DEIS at 3-153), predation, roadkill mortalities, poaching, disease, and other factors that have led to the sharp decline of MDT in the Reserve. The 1995 Environmental Impact Statement and 1996 Biological Opinion incorporated the conservation program outlined in the 1995 HCP- a program that failed to prevent the declines described above, and one that is now being undermined by a four-lane highway. The Draft HCP includes provisions for the Northern Corridor as a changed circumstance that would undermine the central mitigation feature of the 1995 HCP: "The central element and primary mitigation measure in Washington County's HCP is the establishment and management of the Red Cliffs Desert Reserve." Red Cliffs Desert Reserve Public Use Plan at 9. The current ITP is flawed because it is not consistent with analyses in the 1995 Environmental Impact Statement and 1996 Biological Opinion. New analysis of the impacts of the reauthorized take must be completed and stronger conservation measures must be implemented.</p>	<p>The USFWS must conduct an intra-service consultation under Section 7(a)(2) when proposing to issue a permit for incidental take under Section 10(a)(1)(B). As part of the consultation process, the USFWS produces a Biological Opinion that analyzes the effects of issuing the permit, together with cumulative effects (as that term is defined in the Section 7 regulations), on affected listed species and critical habitat to determine whether the permit action is likely to jeopardize the continued existence of the listed species or to destroy or adversely modify designated critical habitat. The USFWS's 2020 Section 7 intra-service Consultation would describe the status of the species in the HCP area and if the impacts of take, when combined with other past, present, and future impacts, are likely to jeopardize the continued existence of the covered species. Refer also to responses to A.51-101, A.51-183 and A.51-94.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-348	<p>from pg 214 of comment letter</p> <p>1. The Draft HCP Violates the ESA Best Available Science Requirement And NEPA's Requirement to Address Significant New Information</p> <p>Issue:</p> <p>5. The DEIS and draft HCP improperly ignore new scientific information on possible genetic connections between MDT populations and cumulative effects on these connected populations.</p> <p>The Draft EIS and HCP never discuss and examine the possible genetic connections between the MDT in and around the Red Cliffs NCA and other un-surveyed tortoise populations and habitats on nearby BLM Arizona Strip and Arizona State lands immediately south of the county and state lines, and how the proposed HCP and ITP may impact these populations.</p>	<p>The HCP permit area is restricted to Washington County east of the Beaver Dam Mountains. Maintaining gene flow between the permit area and the adjacent populations is an important component of recovery. The Final EIS discusses the importance of Zone 6 to connectivity to other areas in Section 3.5.2.1.</p> <p>Genetic exchange occurred historically between the UVRRU (Utah and Arizona Strip area) and the adjacent Northeastern Mojave (NEM) recovery unit (Utah, Arizona, and Nevada), though more studies are needed to determine if genetic exchange is still occurring (USFWS 2011). The permit area would impact non-Federal lands, but substantial Federal lands would remain in the 11 analytical units to maintain gene flow with the contiguous habitat in Arizona across the State line (Figure 3.5-3 in the Final EIS). In addition, the protection of Zone 6 and currently unimpeded lands to the west will support continued genetic exchange with adjacent recovery units. The Final EIS has been revised to state the permit is not anticipated to impact gene flow.</p>

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H.65-349	Section 10(2)(A) of the Endangered Species Act obligates the applicant to minimize and mitigate to the maximum extent practicable the impacts of any taking. The draft HCP must implement measures that will establish and maintain connectivity, especially given the documented MDT declines in the UVRU, the small size and isolation of the UVRU, the existing fragmentation of the UVRU, and the fact that only 78 percent of the designated critical habitat in the UVRU remains suitable for MDT occupation. Per the HCP at 45. "A widely distributed species such as the MDT is impacted by the fragmentation of surrounding habitat and loss of connectivity to neighboring populations that can facilitate repopulation and recovery (Allison and McLuckie 2018; Fahrig 2007)."	The ITP issuance criterion for minimizing and mitigating the impacts of take applies only to take authorized by the ITP, not "any taking." In addition, Section 9.1.1.2 of the Amended HCP commits to providing tortoise passage along Cottonwood Road to increase connectivity in that area of the Reserve.
H.65-350	Additionally, Map 3.5-3 in the DEIS shows three analytic units (Far West, Sand Mountain and Green Valley) that border with the Arizona Analytic Unit. Connectivity between these units must be analyzed and considered, in addition to the role that Zone 6 may play at enhancing these connections, but only independently of the Northern Corridor Highway.	Refer to response to H.65-348.
H.65-351	The Draft HCP must address the biological and ecological connections that occur across the Utah/ Arizona state line and must implement conservation measures that provide connectivity between MDT recovery and analytic units such as the Far West, Sand Mountain, Green Valley and Arizona Analytic Units, independently of the quid-pro-quo Zone 6 in exchanged for the Northern Corridor Highway scenario.	Refer to response to H.65-348.

Appendix O Responses to Public Comments on the Northern Corridor – Highway Right-of-Way, Issuance of an Incidental Take Permit Final EIS and Draft RMP Amendments

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-352	<p>from pg 216 of comment letter</p> <p>2. The Draft HCP Fails to Minimize and Mitigate Impacts of Take Issue</p> <p>6. The draft HCP improperly seeks Zone 6 mitigation credit for the NCH by using BLM authority and funds to compensate for NCH related harm to BLM lands in the RCDR and NCA. Federal lands and funds should not be used to "mitigate" UDOT and county NCH related damage on federal lands and to a federally protected species.</p>	<p>Participating HCP Partners have agreed to assist with the implementation of the Washington County HCP. These actions are commitments responding to an identified changed circumstance that affects the species and area covered by the HCP. This response is also consistent with the biological goals and objectives of the Amended HCP, which in part aims to achieve regional recovery objectives for the Mojave desert tortoise. This biological goal is shared by the HCP Partners, including the Federal and State resource management agencies, and is consistent with their missions. Washington County has proposed to commit significant resources to offset the changed circumstance of the Northern Corridor and support the management of proposed Zone 6 for the benefit of the Mojave desert tortoise and other sensitive species. Refer also to responses to NCA-03, A.05-82, and A.51-91.</p>
H.65-353	<p>In determining if the adequacy of the mitigation in the HCP/ITP meets the 10(a)(2) mitigation standards, the FWS may only examine the mitigation and conservation measures provided by the applicant. 16 U.S.C. § XX (requiring "steps the applicant will take to minimize and mitigate such impacts, and the funding that will be available to implement such steps.") Washington County is the applicant for the ITP and HCP.</p>	<p>Refer to responses to H.65-352 and A.51-91.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-354	<p>Washington County proposes Zone 6 as mitigation for the Northern Corridor but cannot offer this mitigation independently. First, Zone 6 is comprised of lands neither owned by, nor under the jurisdiction of the County. The addition of Zone 6 to the Reserve, then, hinges on HCP partners including SITLA and BLM to provide the bulk of this mitigation: "The proposed Zone 6 area comprises 6,813 acres. These lands are owned or managed by SITLA (3,225 acres), the BLM (3,471 acres, of which 2,345 acres are designated as an ACEC), UDOT (71 acres), and local government and private landowners (45 acres) (refer to Map 2.5-15)." DEIS at 3-48.</p>	Refer to response to H.65-352.
H.65-355	<p>Second, the Draft HCP shows that the county is only committing to a small portion of the management, restoration and land acquisition in Zone 6:</p> <ul style="list-style-type: none"> <li>• The County will fund the acquisition of approximately 450 acres of SITLA-owned lands within proposed Reserve Zone 6 prior to the start of construction of the Northern Corridor. The actual acquisition acreage will depend on the final size of the ROW approved for the Northern Corridor. (Draft HCP at xiv). There are 3,225 acres of SITLA land in Zone 6, meaning that the county is leaving at least 2,775 acres for BLM to bring into federal ownership. This is a large, \$14 million undertaking given that the county estimates a single SITLA acre is worth \$5,000 (Draft HCP at 120).</li> <li>• The County only commits to paying \$55,000 more per year on law enforcement to combat a wide variety of illegal uses and damaging recreational uses in Zone 6 if the changed circumstance is triggered. This funding may be enough to support one full-time officer, when many more are needed. (Draft HCP at 120).</li> <li>• The County only commits to paying \$12,000 more per year on community outreach and education efforts in Zone 6 if the changed circumstance is triggered. This funding will not be enough to provide outreach to the tens of thousands of annual visitors to Zone 6.</li> <li>• The County only commits to paying \$3,000 more per year for recreation management in Zone 6 if the changed circumstance is triggered. Zone 6 has a network of 150 miles of roads and social trails, many of which will need to be closed. This budget cannot support substantial trail closures, or the necessary restoration following them.</li> </ul> <p>The Draft HCP shows that the county is only committing to a portion of the effort it would take to add Zone 6 to the Reserve. The document fails to discuss the contributions BLM and UDWR would need to make each year to support Zone 6, or if these agencies even have the ability to do so. Washington County is not able to provide the questionable Zone 6 mitigation independently of its HCP partners. From a BLM perspective, this is the county attempting to "rob Peter to pay Paul."</p>	Refer to response to H.65-352.

Appendix O Responses to Public Comments on the Northern Corridor – Highway Right-of-Way, Issuance of an Incidental Take Permit Final EIS and Draft RMP Amendments

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-356	<p>from pg 217 of comment letter</p> <p>2. The Draft HCP Fails to Minimize and Mitigate Impacts of Take Issue</p> <p>7. The draft HCP cannot rely on voluntary conservation measures to mitigate and minimize the impacts of its proposed incidental take of MDT.</p> <p>In the Draft HCP, Washington County cannot rely on a series of voluntary conservation measures to meet its ESA obligations. Many of the new conservation measures provided under the Draft HCP are neither mandatory nor enforceable. For example, Washington County voluntarily commits in the Draft HCP to continue its public education and outreach programs, including the continued operation of the Red Cliffs Visitor Center and ongoing coordination with the HCP Partners through the deliberations of the HCAC on the content and distribution of education and outreach materials. Draft HCP at viii. The county also voluntarily commits to establishing an adaptive management fund to help support planning, monitoring, and responses for fire management within the Reserve boundary; and voluntarily commits to supporting recreation impact monitoring, raven monitoring and a trail steward program. Id. at x-xi.</p>	Refer to response to A.51-177.
H.65-357	<p>from pg 218 of comment letter</p> <p>2. The Draft HCP Fails to Minimize and Mitigate Impacts of Take Issue</p> <p>8. The draft HCP makes SITLA a new participating agency and commits SITLA Zone 6 land as a mitigation credit for the NCH without addressing that SITLA may lack the proper legal authority to make these long-term conservation commitments given its primary legal duty to optimize revenue for its beneficiaries. The DEIS analysis and draft HCP fail to acknowledge this concern nor provide any assessment of risk that the SITLA conservation commitments may be changed or overturned.</p>	Refer to responses to H.65-352, H.65-359, and A.51-92.
H.65-358	<p>FWS cannot credit any mitigation efforts provided by SITLA, since FWS is limited to considering only the mitigation measures provided by the applicant. See #2 above: The draft HCP improperly seeks Zone 6 mitigation credit for the NCH by using BLM authority and funds to compensate for NCH related harm to BLM lands in the RCDR and NCA. Federal lands and funds should not be used to "mitigate" UDOT and county NCH related damage on federal lands and to a federally protected species.</p>	Refer to response to H.65-352.

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H.65-359	<p>Furthermore, the HCP ignores the public scoping comments raising concerns and questions about SITLA's legal ability to make binding, long-term conservation commitments. As the RCDR, NCA, and proposed Zone 6 become increasingly encircled by developments, rising property values and prospects for lucrative development may compel SITLA to renege on at least some of their conservation commitments. SITLA officials may decide to do so, or the beneficiaries may sue to force that result. As such, the DEIS analysis, and BLM and FWS, improperly rely on these SITLA conservation commitments without any acknowledgement of these substantial risks. Until, and if, SITLA lands in proposed Zone 6 are brought into federal ownership, they are owned by the state on behalf of the trust. The slow pace of acquisition of SITLA lands in the Reserve does not suggest that acquisition will occur quickly in Zone 6, leaving these lands vulnerable to increasing development pressures.</p>	<p>Evaluation of whether SITLA's participation as an HCP Partner fulfills its mission is outside of the scope of the analysis for this EIS. SITLA participated in the last HCP and has also participated in the development of the Amended HCP as an HCP Partner and will be a signatory to the HCP Implementation Agreement. In signing and executing the HCP Implementation Agreement, SITLA has expressed that in its view, the terms and conditions contained within the Amended HCP adhere to its mission (i.e., to administer trust lands prudently and profitably for Utah's schoolchildren and other beneficiaries).</p> <p>Also note that if Proposed Zone 6 is created, the ITP would not be able to authorize take of Mojave desert tortoise from development activities in Proposed Zone 6.</p>
H.65-360	<p>from pg 218 of comment letter</p> <p>2. The Draft HCP Fails to Minimize and Mitigate Impacts of Take Issue</p> <p>9. The draft HCP is clearly inadequate because the proposed conservation measures to address the "changed circumstances" of future fires and severe drought would not be sufficient to compensate for the large scope of these harmful effects on tortoises. Indeed, most of the tortoise habitat destroyed in the 2005 RCDR fires was not successfully rehabilitated, and, thus far, there is little confidence that the significant damage from massive recent fires may likewise be adequately mitigated.</p>	<p>The EIS includes updated information and analyses of fires in the Reserve, including those that occurred in 2020. The measure included in the Amended HCP was not included in the 1995 HCP. The USFWS will evaluate the Amended HCP, conservation strategy, and changed circumstances in ESA Section 7 consultation with BLM, intra-USFWS ESA Section 7 consultation, and in a Findings document as the USFWS considers the decision of whether to issue an ITP.</p> <p>Refer also to response to A.51-91.</p>

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H.65-361	<p>Important discussion is missing from the Reserve Habitat and Fire Management Plan:</p> <ul style="list-style-type: none"> <li>• Information on the success of restoration efforts following the 2005 wildfires. For example, how many acres have been successfully restored, and at what cost? What funding is required in the future to facilitate the restoration?</li> <li>• Discussion of protecting new MDT habitats as mitigation for future fires in the Reserve. For example, where are quality MDT habitats located in the UVRRU, and how could they be protected independently of damaging projects like the Northern Corridor?</li> <li>• Accurate discussion of the effectiveness of fire breaks in the southwestern US. Fire breaks are not effective in environments where fires are fueled by dry annual grasses and high winds.</li> <li>• Plans to consult with experts, such as the USGS Wildland Fire Science team to learn about the best methods for preventing fires and restoring Mojave desert ecosystems.</li> </ul>	<p>The County and other HCP Partners have committed to additional funding for restoration due to impacts of fire in the Reserve as part of the Amended HCP and will use adaptive management to address and minimize the effects of fire in the future. Refer also to response to H.65-360.</p>
H.65-362	<p>from pg 220 of comment letter</p> <p><b>2. The Draft HCP Fails to Minimize and Mitigate Impacts of Take Issue</b></p> <p><b>10. The draft HCP and DEIS improperly fail to consider implementing any seasonal or permanent closure on public use of the popular Cottonwood Road (aka Turkey Farm Road) that bisects RCDR Zone 3.</b></p> <p>If the NCH is constructed, it would have its own intersection on Cottonwood Road to increase public access and use (DEIS at 2-5). In addition, the County and Dixie Metropolitan Planning Organization support a proposed project to improve this road, and that could not only add to the NCH's cumulative adverse impacts, but also directly impact tortoise critical habitat. Cottonwood Road is steep, narrow and winding below its intersection with the proposed NCH. To have this section of the road function as a major artery funneling traffic into downtown St. George, approximately 1 mile of road south of the NCH would have to be straightened and widened. The impacts of this project to MDT and their designated critical habitat in Zones 2 and 3 would be detrimental, substantially increasing the road impact zone, human access, and the risk of catastrophic wildfire.</p>	<p>Cottonwood Springs Road is currently fenced and the area inside the fence is considered unsuitable habitat because tortoises do not have access. Any major changes to the design or exceedance of any existing authorizations would require additional NEPA analysis through the BLM and consultation with the USFWS prior to authorization. No improvements are proposed at this time.</p>

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H.65-363	<p>The massive recent Turkey Farm Road fire that devastated a large portion of Zone 3 tortoise habitat originated from illegal fireworks use off this road. Previous human-caused destructive fires likewise were associated with public use of this road. Restricting public use of this road, especially during fire season, would greatly reduce the risk of future human-caused fires in Zone 3. It is unfortunate that BLM and FWS chose to bow to the county's pro-development bias by failing to consider this obvious tortoise conservation measure in the DEIS and Draft HCP analysis.</p>	<p>Closure of Cottonwood Springs Road has not been proposed in the HCP and is outside the scope of the BLM's consideration of the ROW application for the Northern Corridor because it is outside the proposed project area. Refer also to response to A.51-91.</p>
H.65-364	<p>from pg 220 of comment letter</p> <p><b>2. The Draft HCP Fails to Minimize and Mitigate Impacts of Take Issue</b></p> <p><b>11.</b> The draft HCP improperly fails to commit to any consistent mowing of highway rights of way in tortoise habitat despite the clear threat posed by dried cheatgrass and other plants in these rights of way, and the obvious benefit that such mowing would provide in terms of reducing the risk of future road-related fires spreading into tortoise habitat.</p> <p>By ignoring this reasonable alternative conservation measure, the FWS failed to adhere to its obligation to minimize and mitigate to the maximum extent practicable the impacts of the taking under the Endangered Species Act 10(a)(2).</p>	<p>Refer to response to A.51-93.</p>
H.65-365	<p>from pg 221 of comment letter</p> <p><b>2. The Draft HCP Fails to Minimize and Mitigate Impacts of Take Issue</b></p> <p><b>12.</b> Existing conservation efforts have failed to arrest the decline in MDT populations and habitat.</p> <p>Existing conservation actions have failed to prevent the 41 % decline of MDT in the RCDR over the duration of the 1995 HCP, and Washington County cannot rely on these same measures to minimize and mitigation the impacts of future taking. These unproven and speculative conservation measures include reserve fencing, law enforcement; community Outreach and Education; Utility Development Protocols; Recreation Management; Reserve Habitat and Fire Management Guidelines; and Adaptive Management and Monitoring In fact, the DEIS captures in detail the following examples of how the existing HCP's conservation program has failed, including:</p> <ul style="list-style-type: none"> <li>• High levels of MDT mortality on roads and trails inside and adjacent to the Reserve, with 146 roadkill mortalities recorded, as documented on pg. 3-36 in Vol. 2 of the Draft EIS.</li> <li>• A vicious burn-reburn fire cycle in the Reserve in which 22 fires have burned 15,913 acres within the Red Cliffs NCA and the Reserve since 1976; 3,808 acres</li> </ul>	<p>Refer to responses to A.51-101 and A.51-91.</p>

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	<p>have burned multiple times; and 8 out of 22 fires were human caused, as documented on pg. 3-153 in Vol. 2 of the Draft EIS. These numbers do not include the recent Turkey Farm Road and Cottonwood Trail Fires that burned 14,000 acres. Therefore, the Reserve has experienced 24 wildfires since 1976; with as many as 30,000 acres having burned (the proportion double-burned acres is unknown at this point); and 10 out of 24 of these fires were human caused.</p> <ul style="list-style-type: none"> <li>• The proliferation of exotic annual grasses and forbs that reach almost every area inside the Red Cliffs NCA ranging from 5 to 30 percent coverage as documented on pg. 3-8 in Vol. 2 of the Draft EIS. Note that current percent coverage is likely much higher than it was in 2016 when these conditions were documented.</li> <li>• The proliferation of social trails and trampling of critical habitat in the Reserve as documented on pg. 3-38 in Vol. 2 of the Draft EIS. There are 53 miles of social trails in critical habitat on BLM lands in the Reserve and somewhere between 0 and 71 miles of social trails in critical habitat on non-Federal lands in the Reserve.</li> <li>• Raven predation and the spread of ravens across the Reserve documented on pg. 3-40 in Vol. 2 of the Draft EIS. Since monitoring began in 2015, 28 mortalities associated with raven predation have been recorded. This is likely a fraction of the actual number of raven predation mortalities in the Reserve.</li> <li>• Dogs-off-leash in the Reserve and the resulting harassment and death of tortoises as documented on pg. 3-41 in Vol. 2 of the Draft EIS. There have been 9 recorded instances of mauling or predation of MDT by dogs in recent years.</li> <li>• High levels of poaching as documented on pg. 3-41 in Vol. 2 of the Draft EIS. There have been 38 incidents of suspected or confirmed illegal take of Mojave desert tortoises from the Reserve and surrounding areas.</li> <li>• Undisclosed, but increasing, rates of disease. Pg. 3-41 in Vol. 2 of the Draft EIS says that "shell disease was observed in relatively high-density Mojave desert tortoise areas. In addition, URTD has been observed throughout the Reserve, and the presence of Mojave desert tortoise with URTD clinical signs has increased since 2013 (UDWR 2018)."</li> <li>• Loss of habitat and fragmentation caused by utilities. Pg. 3-37 in Vol. 2 of the Draft EIS discloses that there are at least 38 existing ROWs in the Reserve but does adequately discuss the impacts of this fragmentation to the MDT.</li> </ul> <p>These documented impacts undermine the success of the existing HCP, and it is arbitrary and capricious for the county to again rely on these same conservation measures to ensure that it will minimize and mitigate the impacts of incidental take of MDT. These numbers suggest that fencing is failing to prevent MDT from entering roadways; that law enforcement is failing to prevent human caused fire, poaching,</p>	

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	<p>and dogs-off-leash; that community outreach and education is failing to reach the right audience or find the right conservation message needed help to prevent behaviors that harm tortoises inside and outside of the Reserve; that Utility Development Protocols are failing to prevent habitat loss, fragmentation, and raven perches; that recreation management is failing to curb illegal social trails; that Reserve Habitat and Fire Management Guidelines are failing to combat the devastating fire cycle in the Reserve; and that Adaptive Management and Monitoring is failing to adequately respond to uncertainty in conservation programs, including events like disease, drought, and wildfire. It is concerning that these impacts were not thoroughly analyzed in the draft HCP, and only in the DEIS. Since these impacts contribute to the steady decline of MDT in the Reserve, they should inform the plan for strengthening protections for MDT in the future.</p>	
H.65-366	<p>from pg 222 of comment letter</p> <p>2. The Draft HCP Fails to Minimize and Mitigate Impacts of Take Issue</p> <p>13. Construction of the NCH would violate previous conservation measures, designed to minimize and mitigate impacts on MDT.</p> <p>The draft HCP proposes to accommodate the Northern Corridor Highway as a "changed circumstance," and in so doing would violate the following conservation measures, each central to off-setting the take of both the 1995 ITP and the proposed 2020 ITP:</p> <ul style="list-style-type: none"> <li>• The Red Cliffs Desert Reserve. "The establishment of the Red Cliffs Desert Reserve is the primary conservation measure of the 1995 HCP." (Draft HCP at 78). The Reserve has functioned to mitigate the take of 22,822 MDT acres and 776 MDT since 1995. Impairing the functioning of the Reserve would mean that both the take authorized in 1995 and the re-authorized take the County is applying for in 2020 will not be off-set.</li> <li>• Reserve Zones. To facilitate management, the Reserve is divided into 5 zones. Zone 3 "contains the largest block of contiguous MDT Habitat and is considered the core of the Reserve" (Draft HCP at 81). The 1995 HCP specified that "the largest block of habitat which will remain roadless is within Zone 3 of the reserve which is between the Cottonwood Road, Interstate 15, the Dixie National Forest, and Red Cliffs, an area of approximately 28,147 acres" (emphasis added. 1995 HCP at 123).</li> <li>• Long-term Reserve use and management. "The County and the HCP Partners acknowledge that the long-term management of the Reserve is an ongoing commitment for addressing the permanent impacts of habitat loss from the Covered Activities" (Draft HCP at 84). Direct, indirect, and cumulative adverse</li> </ul>	<p>The BLM and USFWS worked with the applicants and HCP Partners to include a stronger conservation package. Refer to Section 2.4.2.5 in the Final EIS that addresses the measures that minimize and mitigate the impacts of take.</p> <p>The permit associated with the 1995 HCP expired in 2016 and has been operating under a letter of extension. If the USFWS decides to issue a permit for the Amended HCP application, the previously issued permit will no longer be valid. Nonetheless, the Reserve is carried forward as the primary conservation measure of the HCP to seek attainment of the biological goals and objectives. The Final EIS describes the impacts of the Northern Corridor to the HCP conservation strategy in each of the appropriate resource sections. Refer also to response to A.51-93.</p>

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	<p>impacts caused by the NCH would prevent the Reserve from functioning to off-set permanent impacts of habitat loss from covered activities.</p> <ul style="list-style-type: none"> <li>• Translocation. "Translocation preserves the life and reproductive potential of many MDT removed from areas subject to Covered Activities, thereby minimizing the impact of authorized take. Trans located MDT in Reserve Zone 4 effectively repopulated unoccupied habitat with a "persistent and viable population." This program repopulated approximately 3,754 acres of previously unoccupied MDT habitat in Reserve Zone 4" (Draft HCP at 91 ). FWS must not assume that the translocation program can offset the impact of take in the ITP. First, the Draft HCP does not indicate that MDT in Zone 4 are monitored after release, so the extent that tortoises have dispersed within Zone 4 is unknown, and the number of acres repopulated cannot be identified with certainty. MDT may be clumped within a portion of Zone 4 or could be evenly distributed. Second, the relative success of the translocation program in Zone 4 is threatened by construction of the Babylon Highway which would travel north to south through Zone 4, fragmenting MDT populations. Finally, the carrying capacity of Zone 4 is unknown and communications with Washington County HCP staff suggest that HCP partners are scrambling to find the next translocation zone.</li> <li>• Biological Monitoring Program. Bi-annual monitoring by UDWR in the RCDR provides crucial MDT density and abundance estimates that monitor progress toward recovery and inform management decisions. In 1995, the county budgeted \$1 million for Reserve monitoring (1995 HCP at 110), but in 2020, they're only budgeting \$500,000 (not factoring in inflation). However, if the NCH changed circumstances are triggered, the county will spend \$1.75 million for monitoring, not factoring in inflation (Draft HCP at 122). The county is both conditionally linking continued monitoring of the Reserve, which is absolutely necessary for conservation of the MDT, to the NCH and prioritizing Zone 6 monitoring over Reserve monitoring.</li> <li>• Reserve design. The NCH would forever alter the Reserve design agreed upon in the 1995 HCP, impairing its function and ability to off-set the take of 66,301 acres of MDT habitat in the permit area. The reserve design proposed in the draft HCP design does not meet the criteria for Reserve design envisioned by the 1994 MDT Recovery Plan.</li> </ul>	
H.65-367	<p>The NCH changed circumstance violates 5 of the 7 guidelines outlined in the 1994 MDT Recovery Plan for establishing appropriate boundaries and prescribing appropriate management goals for the DWMA or Reserve:</p> <ul style="list-style-type: none"> <li>• Large blocks of habitat, containing large populations of the target species, are superior to small blocks of habitat containing small populations.</li> </ul>	<p>USFWS will further evaluate the Reserve design criteria in the Biological Opinion and Findings. Refer also to responses to A.51-91 and A.51-94.</p>

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	<ul style="list-style-type: none"> <li>• Blocks of habitat that are close together are better than blocks far apart</li> <li>• Habitat that occurs in less fragmented, contiguous blocks is preferable to habitat that is fragmented.</li> <li>• Interconnected blocks of habitat are better than isolated blocks, and linkages function better when the habitat within them is represented by protected, preferred habitat for the target species.</li> <li>• Blocks of habitat that are roadless or otherwise inaccessible to humans are better than blocks containing roads and habitat blocks easily accessible to humans. 1994 MDT Recovery Plan at 48.</li> </ul>	<p>Large blocks are superior to small blocks: Pre-work on the highway resulted in UDOT’s proposed alignment pulling the highway as far south as possible while still addressing the transportation needs as described by the applicant.</p> <p>Blocks close together are better than blocks far apart: Zone 6 is not considered to be ‘isolated’ from other Mojave desert tortoise habitat. Zone 6 is part of the Green Valley Analytical Unit (subunits of the Upper Virgin Recovery Unit) for Mojave desert tortoise and includes contiguous habitat for Mojave desert tortoise with potential corridors for movement of Mojave desert tortoise through public lands across or around the Beaver Dam Mountains that could connect to the Northeast Mojave Recovery Unit. Zone 6 is closer to the NEM recovery unit than Zones 1 to 5 and improves Reserve proximity to the adjacent recovery unit. Connectivity between the main Reserve and Zone 6 will require land protections and coordination. Connectivity between Zone 6 and surrounding lands will be key to retaining the value of the Zone 6 sub-population to the UVR recovery. There is also some benefits to redundancy by protecting this population outside and not adjacent to the Reserve.</p> <p>Less fragmented and Interconnected: Conservation measures for the highway include eight passages for desert tortoises under the highway to minimize fragmentation impacts. In</p>

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		<p>addition, passages on other roads are proposed to further minimize fragmentation and increase the effective size of the Zone 2 and Zone 3 block.</p> <p>Roadless: Minimizing accessibility helps retain ecological function from habitat degradation and fragmentation (e.g., invasive species and trail braiding). Recognizing that the new road may increase human accessibility to protected areas, no access is allowed from the ROW and fencing will be installed to help further minimize access (as well as protecting desert tortoises from entering the ROW). Human access fencing is being considered for the final design phase and law enforcement, signage, and education will help minimize human access. In addition, impacts to the ecological function will be minimized with eight desert tortoise passages under the highway and on- and off-ROW habitat restoration.</p>

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H.65-368	<p>The Reserve design envisioned in the draft HCP, by incorporating the NCH, would fragment the largest contiguous block of MDT habitat in the Reserve- one that is home to the largest population of MDT in the Reserve (Zone 3). Proposed Zone 6 mitigation provides a block of habitat that is not contiguous with the rest of the Reserve and is highly fragmented by existing roads and trails. Opportunity for linkage between Zone 6 and the larger Green Valley Analytic Unit is prevented by the Western Corridor, a four-lane highway that would follow the western boundary of Zone 6. The NCH would increase human and vehicle access to the Reserve, drastically increasing the proliferation of invasive weeds and the risk of catastrophic wildfire. With over 150 miles of trails and routes, Zone 6 is already adversely impacted by high levels of human visitation. Three future highways planned for Zone 6 will only increase the level of human access and corresponding adverse impacts. Furthermore, pg. B-75 in Vol. 3 of the Draft EIS shows that there are plans for 6 to 10 miles of new trail adjacent to the highway that will further increase human access to critical habitat in the Reserve.</p>	<p>Refer to responses to H.65-366 and DATA-02.</p>
H.65-369	<p>Additionally, the Draft HCP fails to show how its conservation program- which has failed to reverse steady declines of MDT in the Reserve and UVRU and includes provisions to adversely modify critical habitat in and take MDT in the Reserve- is accordance with the 2011 Revised Recovery Plan for the Mojave Population of Desert Tortoise. This conservation program violates the following objectives and criteria from the Recovery 2011 MDT Recovery Plan:</p> <ul style="list-style-type: none"> <li>• Recovery Criterion 1. Rates of population change (1) for desert tortoises are increasing (i.e., "A,&gt; 1) over at least 25 years ( a single tortoise generation), as measured</li> <li>• Recovery Criterion 2. Distribution of desert tortoises throughout each tortoise conservation area is increasing over at least 25 years (i.e., \j/ [occupancy] &gt; 0).</li> <li>• Objective 3. Ensure that habitat within each recovery unit is protected and managed to support long-term viability of desert tortoise populations.</li> <li>• Recovery Criterion 3. The quantity of desert tortoise habitat within each desert tortoise conservation area is maintained with no net loss until tortoise population viability is ensured. When parameters relating habitat quality to tortoise populations are defined and a mechanism to track these parameters established, the condition of degraded dese1t tortoise habitat should also be demonstrably improving.</li> </ul>	<p>Refer to responses to A.51-101 and A.51-91.</p>

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H.65-370	<p>Finally, it appears that the county recognizes the adverse impacts a conservation program that facilitates a four-lane highway will have on the Reserve:                      "Nonetheless, the County acknowledges that approval and subsequent construction of the Northern Corridor would affect the use, management, and conservation value of the Reserve; affect individual MDT and their population dynamics." Draft HCP at 2.</p>	<p>The County has prepared an Amended HCP and is seeking an ITP from the USFWS. In the Amended HCP, the County has committed resources during the new ITP term (e.g., funding and staffing) for achieving its Community and Biological Goals and Objectives. The USFWS will review the Amended HCP to determine whether issuance criteria are met.                      Refer also to response to A.51-91.</p>
H.65-371	<p>from pg 225 of comment letter                      2. The Draft HCP Fails to Minimize and Mitigate Impacts of Take Issue                      14. Uncompleted Reserve Acquisition Strategy leave the MDT and critical habitat at significant risk.                      Facilitating acquisition of private and state lands in the Reserve for the conservation of MDT has been an important conservation action of the 1995 HCP. "As of February 2020, approximately 665 acres of private land ( of the total 2,981 acres of privately owned lands) and 6,426 acres of SITLA-owned land (7,091 acres total) occur within the Reserve and remain to be acquired for the purposes of this Amended HCP (Table 17). Draft HCP at 82. All NCH alternatives considered in the DEIS travel through private lands in the RCDR. This is concerning given the slow pace of acquisitions over the last 25 years; the fact that the NCH would increase access to these private inholdings; and the fact that the draft HCP explicitly covers development inside the Reserve as a changed circumstance: "Landowners have been consulted throughout the HCP process and have been encouraged to participate in these land exchanges [ for Reserve acquisition]. In the event they do not, the HCP will have no legal effect on their property and the HCP will place no restrictions on land use within the reserve."                      "It is possible that a private landowner or SITLA may seek alternative means of ESA compliance, other than through this Amended HCP, and ultimately develop lands within the Reserve." Draft HCP at 140.                      Development of inholdings within the Reserve would increase habitat fragmentation, the edge effect, the risk of wildfire, predation, poaching and other adverse impacts to the MDT.</p>	<p>It is true that a private landowner or SITLA may seek alternative means of ESA compliance, other than through this Amended HCP, and ultimately develop lands within the Reserve. However, Washington County and HCP Partners (including SITLA) have a strong track record since 1995 of avoiding and minimizing private or State land development in the Reserve, and in acquiring these lands in the Reserve.                      Refer also to response to H.65-111.</p>

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H.65-372	<p>from pg 226 of comment letter</p> <p>3. The Draft HCP Fails to Mitigate Take of MDT to the "Maximum Extent Practicable" The Service cannot lawfully issue an Incidental Take Permit under the terms of Washington County's application. Under Section 10 of the ESA, the Service is required to find that the HCP and covered actions will minimize the impacts to MDT "to the maximum extent practicable." 16 U.S.C. § 1539(a)(2)(B). Under this requirement, the Service must find independently that no practicable alternative to Washington County's HCP would minimize the taking of MDT. Gerber v. Norton, 294 F.3d 173, 185 (2002). Washington County fails to adhere to this standard, and the Service cannot issue an ITP. For additional discussion on how the Draft HCP fails to mitigate MDT take to the maximum extent practicable, see letter from Desert Tortoise Council Board Member Margaret Fusari.</p>	Refer to response to A.51-183.
H.65-373	<p>from pg 226 of comment letter</p> <p>3. The Draft HCP Fails to Mitigate Take of MDT to the "Maximum Extent Practicable" Issue</p> <p>15. The draft HCP improperly conditions some necessary tortoise conservation measures on approval of the NCH, and this demonstrates that the county would not take the required "maximum" practicable conservation actions as required for HCP/ITP approval.</p> <p>The conservation program implemented in the 1995 HCP failed to prevent the 24.3% decline of MDT in the UVRU and the 41 % decline of MDT in the Reserve from 1999 to 2020. While stochastic events like drought and wildfire are partially responsible for this decline, data shows that the MDT population never fully recovered after these events, meaning that the conservation program has failed in prevention, response and restoration. (The coalition does not consider human-caused wildfire a stochastic event outside of the applicant's control, because conservation measures including reduction of invasive plant species, law enforcement and community outreach can be used to prevent human-caused fires). Following drought and wildfire in the early 2000's, Reserve-wide MDT populations dropped from 29.6 MDT/km2 in 2000 to 14.2 MDT/km2 in 2007. In 2017, populations had climbed back up to 19.6 MDT/km2, but in 2019, populations dropped again to 17.2 MDT/km2</p>	Refer to response to A.51-93.

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H.65-374	Regional Desert Tortoise Monitoring in the Red Cliffs Desert Reserve, 2017 at 27. The county must not try to shirk responsibility for these declines by calling them stochastic events, as the data shows that numerous threats within the applicant's control have contributed to the decline of MDT as discussed elsewhere in these comments. Furthermore, the Utah Division of Wildlife Resources does not find that the MDT population in the Reserve has completely stabilized: "UDWR considers that the population may be stable, although more years of data without a stochastic event are needed to confirm this assumption (UDWR 2020)." DEIS at 3-48.	Refer to response to A.51-91.
H.65-375	In 2020, two more human-caused wildfires ravaged the Reserve, burning 14,000 acres in designated critical habitat. The actual acreage of MDT habitat remaining in the UVRU that may be suitable for mitigating the adverse impacts of wildfire in the Reserve is difficult to determine from the tables in the Draft HCP at 62-63 which mix original habitat mapping with updated modeling. Regardless, it is clear that identifying and protecting unburned areas is a conservation measure the county must implement.	A large portion of the Reserve is managed by BLM. As described in the Amended HCP (Section 5.1.8), BLM fire management includes prevention tactics. Appendix D in the Amended HCP also describes prevention of fires in the Reserve; goal 1 is to protect unburned desert tortoise habitat. Refer also to responses to FIRE-01 and A.51-91.
H.65-376	The pattern of regular, catastrophic wildfire combined with the county's inability to curb declining MDT populations in the Reserve show that the conservation measures implemented in the 1995 HCP have failed to offset the take that was authorized. Now, the county is proposing the same conservation measures, in addition to provisions for the Northern Corridor Highway, expecting that this plan can offset the take of 66,301 acres of occupied and potential MDT habitat acres on state and private lands throughout Washington County. If it didn't work in 1995, it won't work in 2020, especially with the plan to undermine the central mitigation feature of the 1995 HCP (the Red Cliffs Desert Reserve) with the Northern Corridor Highway.	Refer to response to A.51-93.
H.65-377	To fully minimize and mitigate the take, the county must not route the Northern Corridor Highway through the Reserve and must consider establishing commitments in partnership with BLM and SITLA to implement the following, additional conservation measures: a. Conservation measures based on the recovery actions in the 2011 Revised Recovery Plan for the Mojave Population of the Desert Tortoise. These measures apply, among other places, to the Red Cliffs Desert Reserve, proposed Zone 6, and any other MDT habitats that are identified for protection in the future. <ul style="list-style-type: none"> <li>• Protect Existing Populations and Habitat, pg. 67. The existing Red Cliffs Desert Reserve must be protected. The NCH would adversely impact designated critical</li> </ul>	The BLM is responding to UDOT's application for a ROW to construct the Northern Corridor across BLM-administered lands. The BLM decision maker will determine whether to grant ROW for the highway. Refer also to response to A.51-93. In response to this commenters other bullets: The Red Cliffs Desert Reserve will be acquired and managed by BLM and the

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	<p>habitat in the Reserve and the most important high-density cluster of MDT anywhere in the UVRU (DEIS at 3-63) and therefore cannot be accommodated as a changed circumstance in the Draft HCP. See discussion of the importance of Zone 3 to MDT elsewhere in these comments.</p> <ul style="list-style-type: none"> <li>• Increase law enforcement, pg. 69. Recent human-caused wildfires, and the high levels of poaching, dog-off leash and social trailing documented in the DEIS emphasize the need for more law enforcement in the Reserve. The recovery plan states that "increased law enforcement presence is a relatively high priority in all recovery units (especially Upper Virgin River) and includes enforcing regulations pertinent to the specific recommendations to protect tortoises or their habitat listed below. This action also includes using existing officers to ensure law enforcement presence during peak recreational use periods, such as weekends and holidays, on a rotational basis so enforcement activity is not lost on casual users during standard work-week hours" (emphasis added). o Unauthorized off-road vehicle travel, pg. 70. The recovery plan notes that "across all recovery units, this aspect of law enforcement is the most important." Given the 150-mile network of roads and trails documented in proposed Zone 6, this is a crucial conservation measure.</li> <li>• Restrict, designate, close, and fence roads, pg. 71. The Draft HCP must consider conservation measures that place restrictions on existing roads in the Red Cliffs Desert Reserve, including closure of the Cottonwood Road to public use during periods of high wildfire risk. In terms of Zone 6, the Draft HCP at 133 states that HCP partners will "reduce the total mileage of designated recreation access routes within Reserve Zone 6 to approximately 50 miles of primarily nonmotorized trails." However, cross-country OHV use is not allowed in the Red Cliffs Desert Reserve, and all motorized vehicles are restricted to major roads (DEIS at 3-126). Similar, if not stronger, restrictions should apply to Zone 6 because of the well-documented impacts of roads to MDT described in the 2011 Recovery Plan at 71: "Paved highways, unpaved and paved roads, trails, and tracks have significant impacts on desert tortoise populations and habitat. In addition to providing many opportunities for accidental mortality, they also provide access to remote areas for collectors, vandals, poachers, and people who do not follow vehicle-use regulations. Substantial numbers of desert tortoises are killed on paved roads. Roads also fragment habitat and facilitate invasion of non-native vegetation." Conservation measures that close the majority of motorized routes in Zone 6 (and enforce the closures) must be implemented.</li> <li>• Restore desert tortoise habitat, pg. 73. The Draft HCP fails to detail plans for continued habitat restoration in the Red Cliffs Desert Reserve following the</li> </ul>	<p>State for the benefit of desert tortoises and these agencies will sign the Amended HCP Implementation Agreement.</p> <p>Law enforcement is a component of the Amended HCP. The County will continue to provide law enforcement on unacquired lands in the Reserve. BLM and the State will provide law enforcement on their acquired lands. Cottonwood Road is fenced to reduce tortoise mortalities and the Amended HCP includes providing tortoise passage under this road. Zone 6 would be managed similarly to the rest of the Reserve, including reduction and management of recreation uses.</p> <p>The Final EIS also provides information on the most recent fires and conservation commitments by State and Federal agencies to restore habitats in the Reserve.</p> <p>Refer also to responses to A.51-93 and FIRE-01.</p> <p>Reasonably foreseeable future actions, including the Western Corridor, are addressed in the Final EIS.</p> <p>Refer also to response to DATA-02.</p>

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	<p>severe 2005 and 2006 wildfires, or the recent 2020 wildfires. It also fails to disclose plans for restoring MDT habitat in Zone 6 from adverse impacts caused by grazing, mining, OHV use, social trailing, dumping and target shooting. At a minimum, the Draft HCP must implement conservation measures that eradicate or suppress invasive weeds and revegetate degraded areas with native plants of high nutritive quality to desert tortoises, as well as shrubs needed for cover.</p> <ul style="list-style-type: none"> <li>• Connect functional habitat, pg. 76. The Draft HCP must consider the impacts of future highways like the Western Corridor on MDT habitat in Zone 6. If, after additional study, Zone 6 is found to increase connectivity between MDT in the UVRU and the Northeastern Mojave Recovery Unit, this connectivity must be preserved.</li> </ul>	

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H.65-378	<p>To fully minimize and mitigate the take, the County must not route the Northern Corridor Highway through the Reserve and must consider establishing commitments in partnership with BLM and SITLA to implement the following, additional conservation measures:</p> <p>b. Conservation Measures outlined in the draft HCP that could be implemented independently of triggering the Northern Corridor Highway Changed Circumstance. These measures, described in the Draft HCP at 132, include:</p> <ul style="list-style-type: none"> <li>• <b>Retire Previously Authorized Incidental Take</b> Given the presence of MDT, endangered and sensitive plant species, and popular recreation sites in Zone 6, the county should retire the 3,338 acres of incidental take in Zone 6 independently of the Northern Corridor Highway. This would show a good-faith effort by the county to remove developmental pressures from lands that may, pending future years of study, be able to support broader MDT conservation goals in the UVRU. This is a conservation measure the county could implement in an attempt to curb the steady decline of MDT in the Permit Area that occurred during their management of the 1995 HCP.</li> <li>• <b>Cottonwood Road Tortoise Culverts</b> Culverts under Cottonwood Road should have been developed long ago. The fees the county collects under ESA Section 10 (a) are meant to support MDT conservation, and the county is aware that existing fragmentation of the Reserve must be mitigated: "The Reserve itself contains a variety of human-created fragmentation barriers, primarily in the form of roads and tortoise-proof fencing. For example, Reserve Zones 2 and 3 are fragmented by State Highway 18 and adjacent urban development. Similarly, Reserve Zones 3 and 4 are fragmented by Interstate 15 and adjacent urban development. Reserve Zones 4 and 5 are fragmented, at least in part, by the Virgin River. Within Reserve Zone 3, Cottonwood Road and Red Hills Parkway are north-south barriers that fragment MDT Habitat. Tuacahn Road similarly creates an internal boundary within Reserve Zone 2. These sources of internal fragmentation were present and considered in the design of the original Reserve boundary in 1995." Draft HCP at 82. These culverts must be developed independently of the Northern Corridor to reduce habitat fragmentation in the RCDR. Furthermore, they must be maintained and monitored. If MDT are not using them, design modifications may be required.</li> </ul>	Refer to responses to H.65-377 and A.51-93.

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H.65-379	<p>To fully minimize and mitigate the take, the County must not route the Northern Corridor Highway through the Reserve and must consider establishing commitments in partnership with BLM and SITLA to implement the following, additional conservation measures:</p> <p>c. Further investigation of Zone 6, which is necessary to accurately determine its potential for sustaining viable MDT populations.</p> <p>FWS must consider, as an additional conservation measure, protections for Zone 6 ( or a variant) independent of the Northern Corridor Highway after additional investigation determines optimal reserve design and validates the MDT surveys to better understand the habitat quality and suitability. Given the current and concerning decline of MDT in the Reserve and the larger UVRU, additional conservation lands are warranted. The HCP (and DEIS) put forth Zone 6 as a potential satellite to the Reserve but fail to explain why or how they arrived at the proposed Zone 6 configuration and location.</p>	Refer to responses to H.65-377 and A.51-93.
H.65-380	<p>The Draft HCP (and DEIS) must disclose why Zone 6 is the best option in the UVRU for additional protection of MDT habitat or offer a more optimal reserve design for Zone 6. Other areas in the UVRU with occupied or potential habitat exist but have not been included in the proposed Zone 6 (see map excerpted from the DEIS below). The proposed Zone 6 is small, experiences heavy recreational use, is open to grazing, and, while already fragmented from other MDT habitat patches, will become more isolated with increased proximal urbanization (facilitated by the future Western Corridor).</p>	Refer to response to A.51-91.
H.65-381	<p>The Draft HCP (and DEIS) must explain its reasoning for the proposed Zone 6 configuration and location. It should list and rank remaining MDT habitats in the plan area, identify the optimal boundary for a potential satellite reserve, and explain the rationale. In doing so, the HCP (and DEIS) should consider current activities and land condition and apply principles of conservation biology for reserve design. These include maximizing size, core/edge ratio, intactness, and connectivity to other protected habitats (e.g., see Forman and Godron 1986; August et al. 2002; Groves et al. 2002; Fayrig 1997).</p>	Refer to response to A.51-91.
H.65-382	<p>To fully minimize and mitigate the take, the county must not route the Northern Corridor Highway through the Reserve and must consider establishing commitments in partnership with BLM and SITLA to implement the following, additional conservation measures:</p> <p>d. Restoration of MDT habitats in the UVRU, including but not limited to Zone 6. Models show that Zone 6 may contain potentially suitable MDT habitat, but more research is needed to determine whether this area could support a long-term, viable population of MDT. In the meantime, the County should begin habitat restoration</p>	Habitat restoration projects with Federal, State, local, and other partners are included in the proposed action. They would be jointly implemented throughout the Reserve if proposed Zone 6 is established. Additionally, on an ongoing basis, the BLM and State of Utah implement proactive vegetation

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	<p>there as a good faith gesture and to offset the impacts of take. The DEIS and draft HCP disclose the following adverse impacts to MDT habitats in Zone 6 that require restoration:</p> <ul style="list-style-type: none"> <li>• Restoration related to high levels of visitation is necessary. With 82,775 annual visits, proposed Zone 6 has a higher density of recreation use than any area on public land in the Red Cliffs NCA. (DEIS at 3-39).</li> <li>• Restoration of an extensive trail system, including many social trail miles, in MDT habitat is necessary. 150 miles of roads and trails, including 13 miles of unpaved roads, 35 miles of two-track vehicle trails, 26 miles of single-track non-motorized trails, and 78 miles of so-called "other" trails. (Draft HCP at 130). Many of these routes are user-created and were developed by the passage of users or vehicles and were not specifically designed and constructed by land management agencies. Certainly, on non-Federal lands, OHV use is relatively unmanaged, and recreational users are known to create social trails in undesignated areas to access recreational opportunities. (DEIS at 3-129).</li> <li>• Campsite cleanup is necessary. Dispersed camping is allowed in undeveloped areas, unless otherwise prohibited (BLM 1999), and car camping on both Federal and non-Federal lands in proposed Zone 6 is popular. While camping is currently prohibited on SITLA lands in Green Valley Gap and Moe's Valley, camping is relatively unmanaged in the area, and recreational users are known to still use the area for camping. (DEIS at 3- 129).</li> <li>• Target shooting clean-up is necessary. The proposed Zone 6 area also is widely used for target shooting, which is allowed on BLM-administered and SITLA lands unless posted otherwise. However, discharge of firearms within the St. George city limits, which overlaps the eastern portion of proposed Zone 6, is prohibited. Similar to camping in the area, current recreational target shooting is relatively unmanaged. (DEIS at 3-129).</li> <li>• Restoration following competitive events and jamborees is necessary. Existing land uses within the SITLA-owned portion of the proposed Reserve Zone 6 include mountain biking, hiking, OHV travel, competitive and groups events (e.g., mountain bike races, jamborees, and festivals). (Draft HCP at 130). There are 5 SRP's for competitive sporting events on BLM lands in Zone 6 that attracted at least 4,000 visitors in 2019. (DEIS at 3- 128).</li> <li>• Restoration of grazed lands is necessary. Within proposed Reserve Zone 6, approximately 1,462 of the 3,225 acres of SITLA lands are currently under active grazing leases (SITLA 2020a, 2020b), as are almost all BLM-administered lands (3,446 of 3,471 acres). (DEIS at 3-40).</li> </ul>	<p>treatments throughout the state to improve wildlife habitat for multiple species and reduce the risk of future wildfires.</p> <p>Refer also to responses to H.65-377, A.51-66, and A.51-91.</p>

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	<ul style="list-style-type: none"> <li>Restoration of mined lands in Zone 6 may be necessary. Within proposed Zone 6, mining can be allowed on SITLA lands if a permit is obtained. Portions of the BLM-administered lands within proposed Zone 6 are closed to fluid mineral development (approximately 122 acres), while the remaining acres are open with varying levels of restrictions. The BLM-administered lands within proposed Zone 6 are also categorized as opened or opened with restrictions to locatable minerals.</li> <li>Closure and restoration of roads in Zone 6 is necessary. Within the proposed Zone 6, tortoise habitat intersects with 18.6 acres of roads. (DEIS at 3-37).</li> <li>Preventing the spread of invasive weeds is necessary in Zone 6. According to LAND FIRE Remap data (2019), 640 acres or 10 percent of proposed Zone 6 is classified as ruderal scrub, ruderal shrub, or exotic annual grassland, with exotic species-dominated understory as well as exotic-dominated herbaceous stands. (DEIS at 3-42). Given the high level of visitation, large network of roads, and large proportion of grazed lands in Zone 6, this figure seems very low.</li> </ul>	
H.65-383	<p>To fully minimize and mitigate the take, the County must not route the Northern Corridor Highway through the Reserve and must consider establishing commitments in partnership with BLM and SITLA to implement the following, additional conservation measures:</p> <p>e. Restoring MDT habitats in Zone 6 and other potentially suitable locations requires substantial time, meaning that efforts must begin now.</p> <p>The 2011 Revised Recovery Plan for the Mojave Population of Desert Tortoise at 73 states that "natural recovery of severely degraded desert scrub is expected to occur over centuries, not decades (Webb et al. 2009a), so active restoration efforts will be required in such areas." The county must begin restoring Zone 6 (independently of the NCH) and other MDT habitats as a primary conservation measure in the 2020 HCP:</p> <ul style="list-style-type: none"> <li>Given sufficient rainfall, the cover and species richness of annual plants can attain levels found on undisturbed areas within 1-15 y after disturbance (Callison et al. 1985; Brooks and Matchett 2003; Vamstad and Rotenberry 2010).</li> <li>However, nonnative annual grasses-poor-quality forage for tortoises-often dominate the disturbed communities within a few years and are persistent (Callison et al. 1985; Brooks and Matchett 2003; Brooks and Berry 2006).</li> <li>In a study of annual plant recovery 36 y after construction of the Los Angeles Aqueduct in the western Mojave Desert, certain annual species (e.g., stiff-haired lotus <i>Acmispon strigosus</i>) known to be favored by desert tortoises had not colonized the disturbance corridor (Berry et al. 2015).</li> <li>Soil formation is in constant flux, with some desert soils requiring millions of years to develop (McDonald et al. 1995).</li> </ul>	<p>The Amended HCP further describes fire management commitments in Section 6.3.2.8, Reserve Habitat and Fire Management Guidelines. Wildfire is also included as a changed circumstance in Section 9.1.1 of the Amended HCP. Appendix D of the Amended HCP is the Habitat and Fire Management Guidelines for the Reserve that would be followed and includes consideration for habitat restoration and invasive species. Lands in the Reserve managed by BLM and the State would be managed for fire under their authorities. The EIS also provides information on the most recent fires and conservation commitments by State and Federal agencies to restore habitats in the Reserve.</p> <p>Refer also to responses to H.65-377 and A.51-91.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
	<ul style="list-style-type: none"> <li>• Reduction of exotic invasive plants species, such as cheatgrass, in Zone 6 is incredibly important because these species perpetuate destructive burn-reburn fire cycles. Full recovery of desert ecosystems after a wildfire can take up to 65 years and is often complicated by climatic shifts and an assault from invasive plants and grasses that squeeze out native vegetation. (Abella 2010).</li> <li>• Reduction of road and route mileage in Zone 6 is also critical because it will help to reduce the spread of exotic invasive plant species. Roads have long been implicated in contributing to the invasion and spread of nonnative plants (Frenkel 1977). Brooks and Berry (2006), in a study of nonnative annual plants in desert tortoise critical habitat, reported that density of dirt roads was con-elated with abundance of nonnatives. A paved highway appeared to be the source of the invasion of another noxious, nonnative species, Sahara mustard Brassica tournefortii in at least one valley within desert tortoise critical habitat in the western Sonoran Desert (Berry et al. 2014a).</li> </ul> <p>All excerpts from Enhancing and Restoring Habitat for the Desert Tortoise, 2016 The Draft HCP must investigate restoring damaged MDT habitat in Zone 6, independently of the NCH, so that this area can contribute to MDT viability in the UVRU. Note that the first step in restoration is reducing the stressors that resulted in degraded habitat conditions. Further, all active restoration must be guided and supported by best available science since, as discussed elsewhere in these comments, attempts to actively restore arid ecosystems are often not successful can make conditions worse.</p>	

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H.65-384	<p>To fully minimize and mitigate the take, the county must not route the Northern Corridor Highway through the Reserve and must consider establishing commitments in partnership with BLM and SITLA to implement the following, additional conservation measures:</p> <p>f. Providing connectivity between analytic units in the UVRU.</p> <p>The UVRU is the smallest and most isolated of the 5 MDT recovery units (Draft HCP at 33). To support long term MDT viability in the recovery unit, connections between and among the 11 analytic units in the UVRU must be preserved. Zone 6 is located within the larger Green Valley Analytic Unit which borders with the Far West and Arizona Analytic Units. "The FWS (2020a) has identified four potential habitat connectivity corridors linking the UVRU and the Northeastern Mojave Recovery Unit. These habitat corridors include habitats from Snow Canyon Analytical Unit through Far West or Green Valley Analytical Units, and one that includes habitats through the Arizona Analytical Unit. Connecting the UVRU and the Northeastern Mojave Recovery Unit could benefit tortoise access to larger habitats and maintain genetic and demographic connectivity (USFWS 2020a)." Zone 6, independent of the NCH, should be further analyzed for its potential to support MDT corridors between the Green Valley, Far West and Arizona Analytic Units. However, this would only be effective if Zone 6 is not fragmented by the Western Corridor (planned for completion by 2050 in the 2019-2050 Draft Regional Transportation Plan) which would prevent the movement of MDT from Zone 6 into the larger Green Valley Analytic Unit. The extension and paving of two roads already built in Zone 6 (Green Valley Dr. and Navajo Dr., each linking to the future Western Corridor) would additionally fragment MDT habitat in Zone 6. The Draft HCP must institute measures to maintain habitat linkages between Zone 6 and the rest of the Green Valley Analytic Unit, independently of the NCH.</p>	<p>The USFWS agrees that connectivity is important throughout the Reserve and will continue to work with partners outside of the HCP to consider tortoise passages along existing roads. Refer also to responses to H.65-377, DATA-02, and A.51-91.</p>

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H.65-385	<p>To fully minimize and mitigate the take, the County must not route the Northern Corridor Highway through the Reserve and must consider establishing commitments in partnership with BLM and SITLA to implement the following, additional conservation measures:</p> <p>g. Imperiled plants in Zone 6 may benefit from protection. Zone 6 provides suitable or known habitat for at least five species of federally threatened, endangered or BLM-sensitive plant species, including:</p> <ul style="list-style-type: none"> <li>• Dwarf bear-poppy (<i>Arctomecon humilis</i>) and critical habitat</li> <li>• Holmgren (Paradox) milk-vetch (<i>Astragalus holmgreniorum</i>) and critical Habitat</li> <li>• Shivwits milk-vetch (<i>Astragalus ampullarioides</i>) and critical Habitat (suitable habitat present)</li> <li>• Siler pincushion cactus (<i>Pediocactus [Echinocactus utahia] sileri</i>) (suitable habitat present)</li> <li>• Parry sandpaper-plant (<i>Petalonyx parryi</i>)</li> </ul> <p>The Draft HCP must investigate the potential for protections for Zone 6, independently of the NCH, to benefit these imperiled plant species.</p>	<p>As part of the Implementation Agreement, the USFWS has worked with BLM, the County, and SITLA to incorporate conservation measures in Zone 6 to avoid or minimize effects to ESA-listed plants from proposed actions in Zone 6. The Northern Corridor ESA Section 7 Biological Assessment and Biological Opinion would further evaluate effects to ESA-listed plants, including the agreed-upon conservation measures, from actions proposed in Zone 6.</p> <p>Refer also to responses to H.65-377 and A.51-91.</p>
H.65-386	<p>To fully minimize and mitigate the take, the County must not route the Northern Corridor Highway through the Reserve and must consider establishing commitments in partnership with BLM and SITLA to implement the following, additional conservation measures:</p> <p>h. Manage all BLM lands in Zone 6 as part of the Red Bluffs ACEC.</p> <p>DEIS Map 2.5-15 shows that less than 40% of the 6, 168-acre Red Bluffs ACEC was included within the boundary of Zone 6, despite the fact that all lands in the ACEC are within the elevational range occupied by the MDT. The Draft HCP must disclose why the western portions of the Red Bluffs ACEC were not included in Zone 6, especially given that these lands are likely far less damaged than the SITLA lands in Zone 6. The entire Red Bluffs ACEC could be designated as a Reserve to increase protections for MDT in the UVRU.</p>	<p>The establishment of Zone 6 is based on the boundary proposed by Washington County in the HCP. Although the ACEC contains habitat for the species, Mojave desert tortoise was not identified as one of the relevant and important values for which the ACEC was established. Additionally, the remaining areas of proposed Zone 6 outside of the ACEC do not contain the relevant and important values for which the ACEC was established, including the endangered dwarf bear-poppy and highly erodible saline soils.</p> <p>Refer also to responses to H.65-377 and A.51-91.</p>

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H.65-387	<p>To fully minimize and mitigate the take, the county must not route the Northern Corridor Highway through the Reserve and must consider establishing commitments in partnership with BLM and SITLA to implement the following, additional conservation measures:</p> <p>i. Closing Trails</p> <p>The Draft EIS notes that most of the trails in the Red Cliffs Desert Reserve, including a large proportion of social trails, occur in MDT habitat:</p> <p>"There are approximately 262 miles of trails within the Reserve, with 108 miles designated and approximately 66 miles of non-designated social trails on BLM-administered lands and 88 miles of both designated and social trails on non-Federal lands (BLM 2020b, AGRC 2020). Of these 262 miles of trails, 197 miles occur within suitable Mojave desert tortoise habitat in the Reserve (73 miles on designated trails, 53 miles on social trails, and 71 miles on non-Federal lands).The proliferation of these unauthorized trails into prime tortoise habitat can disturb wildlife, trample and compact soils, and spread nonnative plant species resulting in degradation of fragile tortoise habitat (USFWS 2020a)."</p> <p>DEIS at 3-38.</p> <p>Snow Canyon State Park closes the Johnson Canyon Trail annually from March 15 to September 14 to protect critical nesting grounds for MDT. The county could consider seasonal closures for trails in the Reserve that are routed through nesting grounds, or temporary closures for trails where reports of poaching, dog-off leash issues, and harassment are frequent.</p>	<p>Closure of trails within the Reserve has not been proposed in the HCP and is outside the scope of the BLM's consideration of the ROW application for the Northern Corridor. Any major changes to the design or exceedance of any existing authorizations would require additional NEPA analysis through the BLM and consultation with the USFWS prior to authorization. The BLM could consider additional restrictions on use of trails on BLM-administered lands during the preparation of the Comprehensive Travel and Transportation Management Plan for the BLM SGFO.</p> <p>Refer also to responses to H.65-377 and A.51-91.</p>
H.65-388	<p>To fully minimize and mitigate the take, the county must not route the Northern Corridor Highway through the Reserve and must consider establishing commitments in partnership with BLM and SITLA to implement the following, additional conservation measures:</p> <p>j. Restricting all travel to designated routes and enforcing designations.</p> <p>As stated earlier in this section, the county and BLM and SITLA should work together to better control recreation in Zone 6 and other relevant lands to reduce impacts to MDT and other protected species. Social trail development and use is a major impact that can be controlled by restricting vehicles (bikes and motorized vehicles) to a well-planned system of designated routes and enforcing the designations rigorously. The county, SITLA and the BLM could enter into a MOU to do this together.</p>	<p>The BLM continues to employ all available resources to enforce the current laws, regulations, and policies on public lands within the Reserve. If the changed circumstance is triggered, the Amended HCP includes provisions for law enforcement in Zone 6.</p> <p>The BLM could consider additional restrictions on use of trails on BLM-administered lands during the preparation of the Comprehensive Travel and Transportation Management Plan for the BLM SGFO.</p> <p>Refer also to responses to H.65-377 and A.51-91.</p>

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H.65-389	<p>4. The Draft HCP does not Ensure Adequate Funding to Fully Implement Mitigation Measures, and FWS must require a More Robust Financial Commitment from the County.</p> <p>FWS should evaluate the county funding commitments in terms of what is likely to be needed to address the ongoing threats as well as the amplified threats that may result from occurrence of some of the changed circumstances like future fires and severe drought, and FWS must not condone the county's attempt to arbitrarily limit its HCP financial commitments. In the draft HCP, the county commits to spending under a million dollars a year, with a meager.02 percent development impact fee, though the costs of full and complete implementation of the HCP conservation measures, together with other conservation measures designed to respond to changing circumstances (like wildfire, weed infestations and other changed circumstances) will likely far exceed this limit. Without greater county funding for the existing Reserve and the proposed Zone 6, the draft HCP would not provide the required maximum conservation efforts. The county's funding commitments do not meet ESA Section 10(a)(2) requirement that "the applicant will ensure that adequate funding for the plan will be provided."</p>	<p>The BLM and USFWS have worked with Washington County and other partners to identify additional funding commitments to address threats to desert tortoises from fire, drought, and other recurring threats. These commitments are reflected in the Amended HCP and the Implementation Agreement.</p> <p>Refer also to response to A.51-91.</p>
H.65-390	<p>a. The county fails to adequately fund Reserve Habitat and Fire Management. County Funding for fire management is limited to \$324,426 over the 25-year term with the Northern Corridor Highway changed circumstance, and only \$162,213 if this changed circumstance is not triggered. Given the size and frequency of wildfires in MDT habitat over the last 20 years, \$324,000 is not enough to deal with the larger and more frequent fires that have defined the recent past and are anticipated in the future. For comparison, preliminary estimates for BLM suppression costs for the 2020 Turkey Farm Road Fire was \$1,724,000 and for the Cottonwood Trail Fire was \$442,000 (personal correspondence with G. Tibbetts). Furthermore, the Draft HCP at 138 notes that "In the event of multiple fires over several years, this commitment ends after the budgeted monies for this line item have been spent." County Funding for habitat restoration is not specified in the Draft HCP, and generally falls under the umbrella of Fire Management. This is a major omission given that 14,000 acres burned in designated critical MDT habitat in the Reserve in 2020. Furthermore, habitat restoration following the devastating 2005 and 2006 fires has never been completed. This effort was led by BLM and UDWR with no support by the county documented in the Draft HCP. There is an obvious need for the county to spend more to help BLM and UDWR with cooperative fire prevention and post-fire habitat rehabilitation projects.</p>	<p>Refer to responses to A.51-101, A.51-209, and H.65-389.</p>

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H.65-391	<p>b. Greater county funding is also needed to increase law enforcement presence in the RCDR.</p> <p>County Funding for law enforcement is limited to \$30,000 per year without the Northern Corridor Highway changed circumstance, and \$85,000 per year if this changed circumstance is triggered. There is currently a single law enforcement officer assigned to the entire 629,000-acre BLM St. George Field Office, meaning that coverage of the Red Cliffs NCA is very limited. The county currently supports sheriff details, but no full time law enforcement officers are assigned to the Reserve. The county must fund greater law enforcement presence to curb pervasive issues with dogs-off-leash, poaching, social trailing and illegal use of fireworks (with devastating wildfire results) that lead to MDT mortality and habitat loss detailed in the DEIS.</p>	<p>Law enforcement is a component of the Amended HCP. The County will continue to provide law enforcement on unacquired lands in the Reserve. BLM and the State will provide law enforcement on their acquired lands. Refer also to response to A.51-91.</p>
H.65-392	<p>c. Greater county funding could enhance public outreach and education efforts that now barely scratch the surface of public awareness.</p> <p>County funding for outreach and education is limited to only \$3,000 per year without the Northern Corridor Highway changed circumstance, and \$12,000 per year if this changed circumstance is triggered. This funding would only provide for "videos, advertising, handouts, community engagement, contractor training, and volunteer coordination" (Draft HCP pg. 132). This funding, and the outreach activities it describes, is insufficient because it does not support additional education specialists. To reign in the damaging recreational uses, multiple education specialists would be required to provide outreach to the 82,775 annual visitors (2019) and the fast-growing communities adjacent to Zone 6 on tortoise awareness and authorized uses in Zone 6.</p>	<p>Table 15 in the Amended HCP highlights some of the outreach and education accomplishments under the 1995 HCP. Section 6.3 of the Amended HCP includes additional community and education outreach efforts, such as continuing to operate the Red Cliffs Visitor Center and constructing a new Red Cliffs Visitor Center in Washington County. Refer also to responses to A.51-91 and A.51-93.</p>
H.65-393	<p>d. Greater county funding is needed to support Reserve recreation management. County Funding for recreation management in the Reserve is limited to a mere \$1,500 per year over the 25-year term of the HCP without the Northern Corridor Highway changed circumstance and \$3,000 per year if this changed circumstance is triggered. This is woefully inadequate funding given the high level of visitation to the Reserve documented in the DEIS at 3-125 with 190,000 visits in 2019, and the pervasive issues with dogs off-leash, poaching and social trailing, in addition to the high levels of visitation and recreation damage to Zone 6 discussed elsewhere in these comments. At 3-38 the DEIS documents that there are 197 miles of trail occurring within suitable Mojave desert tortoise habitat in the existing Reserve with 53 miles on social trails. Additional funding for recreation management could support better and more frequent trail carsonite signs and trailhead signage, a dedicated staff person to lead a robust trail steward program, and restoration of illegal social trails.</p>	<p>The Amended HCP commits County resources during the new ITP term to support recreation management in the Reserve. A large portion of the Reserve is BLM-administered, or State lands and those entities are responsible for recreation management on those lands. Refer also to responses to A.51-91 and A.51-93.</p>

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H.65-394	<p>e. Greater county funding is needed to support Reserve land acquisition. County funding for land acquisition in the Reserve is limited to \$648,851 over the 25-year term of the HCP. This is an inadequate amount to support the acquisition of over 7,000 acres of state and private lands still remaining in the Reserve: "As of February 2020, approximately 665 acres of private land and 6,432 acres of SITLA land occur within the Reserve and remain to be acquired for long-term management. Future acquisition of the remaining private and SITLA lands in the Reserve will be a responsibility of the BLM under the Amended HCP and Implementation Agreement." DEIS at 2-16.</p> <p>While the DEIS and HCP fail to disclose the cost of the SITLA and private lands, the price of recent land acquisitions in the Reserve provide a baseline for comparison. In 2019, BLM paid \$7 million to acquire approximately 160 acres of private land from Robert Brennan. BLM paid roughly \$44,000/acre to acquire these inholdings. At that rate, the County's \$648,851 would help to acquire only 15 of the remaining 7,000 acres left to be acquired in the Reserve. The county, with \$7 million left over in the bank after the 1995 HCP, must contribute more toward land acquisition to conserve the MDT and offset the impacts of take. Until these acquisitions are completed, as the Draft HCP notes numerous times, designated critical MDT habitat in the Reserve is at risk of development: "It is possible that a private landowner or SITLA may seek alternative means of ESA compliance, other than through this Amended HCP, and ultimately develop lands within the Reserve." Draft HCP at 140.</p> <p>The county is lobbying for a three billion dollar plus unnecessary Lake Powell Pipeline, and willing to impose massive development impact fees to help pay for it. But the county is only willing to spend less than \$450,000 per year on general HCP administration minus the Northern Corridor. This demonstrates their pro-development bias and improper frugality when it comes to tortoise conservation.</p>	<p>Land acquisition in the Reserve has always been primarily the responsibility of the Federal agencies and that will continue under the Amended HCP. Refer to response to A.51-241.</p>

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H.65-395	<p>5. The Proposed Taking will Appreciably Reduce Survival and Recovery of MDT Given the continued decline of tortoise populations in the RCDR and UVRU, FWS cannot properly approve the draft HCP/ITP that would largely continue this trend for the next 25 years because it would "appreciably reduce" the prospects for effective tortoise conservation and recovery. This criterion incorporates the ESA section 7 jeopardy standard, which is defined at 50 CFR 402.02: "Jeopardize the continued existence of means to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species." HCP Handbook at 16-5. The conservation program in the 1995 HCP failed to support stable tortoise populations in the Reserve. The Northern Corridor would contribute to the existing instability and would exacerbate the fragility of the Reserve (and the larger UVRU as discussed elsewhere in these comments) following the devastating Turkey Farm Road and Cottonwood Trail Fires that burned 14,000 acres of critical MDT habitat. Given the long-term decline of MDT populations in the Reserve and the UVRU documented in the DEIS (and discussed elsewhere in these comments), it is clear that MDT in the Reserve are faring more poorly now than they were in 1995. Therefore, it is critical that FWS insure that the County enhance the conservation program, without facilitating development of the proposed Northern Corridor Highway</p>	<p>The USFWS would evaluate the effects to the Mojave desert tortoise from the proposed Northern Corridor and from the Amended HCP as part of Endangered Species Act Section 7 consultations with BLM and through intra-service consultation. The USFWS will evaluate the adverse effects to Mojave desert tortoises from both actions and determine whether the adverse effects result in jeopardy to the species, as defined in 50 CFR 402.02. Refer also to responses to 5013-1 and H.65-480.</p>

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H.65-396	<p>a. MDT populations are Collapsing.</p> <p>In 1995, the estimated MDT population was 7,883 in the Plan Area/Washington County (Draft HCP at 63). The HCP at that time estimated that the incidental take would be 1,169 MDT which is about 15% of the total MDT. The FWS in its 1996 Biological Opinion stated that "the proposed issuance of a 20-year incidental take permit authorizing incidental take of desert tortoise. is not likely to jeopardize continued existence of desert tortoise. " (Draft HCP at 60). Indeed, the 1996 HCP estimated that the local MDT populations would total 6,714 in 2020. Today the MDT population in the UVRU is estimated to be 4,449, which is almost 35% below anticipate 2020 population. Indeed, according to Table 6 on page 33 of the Draft HCP, it is estimated that the MDT population in the Upper Virgin River Recovery Unit (UVRU) declined by 24% over a ten-year period from 2004 to 2014. Despite this collapse in local MDT populations, the Draft HCP would allow for additional take, but this time the Draft HCP refused to quantify the level of anticipated take, and, instead, identified a habitat surrogate. The trend between 2004 and 2014 was a 24% decline in MDT in UVRU, and increased stress to the MDT is projected in future decades from increased urbanization and roads, more frequent and intense fires, and climate change. If we conservatively apply a 24% decline rate per decade (continuing the observed decline between 2004and 2014) through 2045, the 2045 population of MDT would be about 1,950 in the UVRU, far below what is considered genetically sustainable. The MDT is in a long-term serious decline. The proposed HCP including the NCH will destroy critical habitat and deal a mortal blow to the UVRU MDT population that is already teetering on the edge. The proposed take will appreciably reduce the likelihood of the survival and recovery of the species in the wild. There is no other rational interpretation of the data.</p>	Refer to response to H.65-395.
H.65-397	<p>b. A Jeopardy Opinion is Warranted</p> <p>If granted, the County's ITP application would authorize the loss of one-hundred percent of the known, occupied and potential MDT habitat in the plan area on non-federal, non-tribal lands (66,301 acres) in exchange for the protection of 67,835 acres in the Red Cliffs Desert Reserve and Zone 6 (61,022 acres and 6,813 acres respectively), after adversely impacting the function of the Reserve by routing a four-lane highway through "the most important high-density cluster of desert tortoises in the recovery unit (DEIS at 3-63)."</p> <p>Washington County is applying to protect and destroy roughly equal portions of MDT habitat (based on the results of habitat modeling that determined potential, not even suitable, habitat), not counting federal and tribal lands over which the county has no jurisdiction. This 1:1 ratio of development to conservation is unsustainable given the adverse impacts to the MDT caused by the NCH documented in the DEIS, and the steady declines of MDT throughout the Reserve and the UVRU. The proposed</p>	Refer to response to H.65-395.

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	<p>actions will adversely modify designated critical habitat and jeopardize the MDT in the UVRU, and hence to the MDT across its range. This will lead to a jeopardy determination, based on the following:</p> <p>1- For the past 20 years, MDT populations have steadily declined in 4 out of 5 recovery units. (DEIS at 3-47).</p> <p>2- MDT in the UVRU have declined by 24.3% between 2004 and 2014. (DEIS at 3-47).</p> <p>3- 'The USFWS (2020a) used a tortoise density value of 3.4 adult tortoises per square mile to estimate a total abundance of 4,450 adult Mojave desert tortoises in the UVRU, with more than half in the Reserve.' (DEIS at 3-47).</p> <p>4- "The USFWS concluded that a minimum density of less than 3.9 adult Mojave desert tortoises per square kilometer is likely not viable (FWS 1994 and 2019a)."89 (DEIS at 3-48). Thus, the density of MDT in the UVRU is not viable pre-Northern Corridor Highway.</p> <p>5- "Tortoise abundance in each of the 11 analytical units in the UVRU is lower than the 3,000 animals recommended by FWS (USFWS 2020a)." (DEIS at 3-48).</p> <p>6- "Even though the Reserve has some of the highest densities, the small geographic size of both the Reserve and the UVRU compromises the potential viability of the Mojave desert tortoise population." (DEIS at 3-48).</p> <p>7- The proposed Northern Corridor Highway is routed through one of the most important high-density clusters of MDT in the UVRU. (DEIS at 3-63).</p> <p>8- On top of recent wildfire devastation, the highway could devastate and substantially diminish this most important cluster of tortoise in the already-vulnerable UVRU.</p> <p>9-Since damage caused by the highway cannot be mitigated by Zone 6, and the conservation actions outlined in the draft HCP fail to offset the take, the whole recovery unit is at stake because of this highway.</p> <p>10- When the UVRU no longer is a functional Recovery Unit, by definition the MDT will not be able to be conserved and recovered across its range.</p> <p>In conclusion, the conservation measures proposed in the Draft HCP have failed to halt the decline of MDT in the RCDR between 1995 and 2020. Because the NCH is being considered as a changed circumstance on top of the inadequate conservation measures, the integrity and functioning of the Reserve will be violated. The resulting habitat fragmentation and destruction will lead to smaller MDT population sizes that are more susceptible to stochastic events, genetic drift and inbreeding, genetic variation declines, and decreases in heterozygosity (Berry and Murphy 2019). Issuance of an ITP based on the conservation measures in this Draft HCP will violate</p>	

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	Section 10(2)(A) of the ESA. FWS therefore improperly with the NCH condition because it would violate the ESA.	
H.65-398	<p>c. Allowing competitive events in Zone 6 will appreciably reduce survival and recovery of MDT.</p> <p>Large-scale competitive events were not listed as covered activities under the 1995 HCP. The draft HCP claims that it is carrying forward the covered recreation uses authorized in the 1995 HCP (draft HCP at 11-12) yet proposes to make exceptions for at least 5 competitive mountain biking events in Zone 6 that draw thousands of spectators and participants, in addition to special events including jamborees and festivals. The DEIS estimates that BLM Special Recreation Permit events attract 4,000 visitors in 2019. DEIS at 3-136.</p> <p>The Draft HCP reiterates covered activities inside the RCDR authorized under the 1995 HCP that are being carried forward in the amended HCP: "Recreation uses and related facilities: Covered Activities include individual or small group forms of recreation on designated trails or use areas within the Reserve, when performed in accordance with the conservation measures specified in the PUP (see Appendix B). As established in the 1995 HCP, this set of Covered Activities explicitly includes hiking, birdwatching, photography, camping, horseback riding, and hunting by unorganized individuals or small groups of individuals in guided or controlled tours (1995 HCP:25-43).</p> <p>Draft HCP at 13.</p> <p>The 1995 HCP states that covered recreation activities must be performed in accordance with conservation measures outlined in the Public Use Plan (PUP): "Organized competitive and recreational sporting events found to be low-impact to habitat are only permitted in the Reserve with a special use permit issued by the BLM or State Parks in coordination with the HCP Administrator. An organized recreational activity is any scheduled event with a specific planned purpose. Those organized recreational activities which conflict with the intended protection of the desert tortoise or, due to the nature of the event, are unable to provide the degree of supervision necessary to prevent harm to desert tortoises or prevent damage to habitat will not be permitted within the Reserve. These activities and events should generally be staged on designated roads only. Monitoring for previous-use impacts, habitat density and quality, numbers of spectators and participants, and time of year will all be factors in the decision to issue/re-issue a permit." (emphasis added).</p> <p>Red Cliffs Public Use Plan (PUP) at 46.</p> <p>Based on the PUP's recommended conservation measures, competitive sporting events cannot be allowed to occur in Zone 6 if added to the Reserve. The Draft HCP and DEIS failed to include monitoring reports for previous-use impacts resulting from</p>	Refer to responses to A.51-91, A.51-66, A.51-93, and A.51-228.

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	<p>competitive events on BLM lands in Zone 6, thus failing to show that these events are low-impact to MDT habitat. The Draft HCP and DEIS have not demonstrated that these events are not in conflict with the intended protection of the MDT, and that the degree of supervision necessary to prevent harm to MDT or habitat can be achieved. Both the DEIS and Draft HCP fail to disclose the number of participants involved in these events and anticipated numbers of spectators. It can be expected that these events may cause adverse, cumulative impacts to the MDT based on the high level of visitation and questionable timing of events like the True Grit Epic Mountain Bike Race discussed in the April 19, 2020 SG News Article "Following True Grit Epic, race participants question organizers' decision to hold event." The duration, timing, and uses that occur in conjunction with the events are also concerning.</p> <p>Many participants arrive early or stay after the events, utilizing Zone 6 for camping and recreation, thereby extending the window of time that adverse impacts could be occurring in tortoise habitat. Most competitive events occur in spring and fall, critical MDT nesting and breeding seasons.</p> <p>Huge influxes of visitation associated with competitive events leads to uses in Zone 6 that adversely impact the MDT and its habitat including: dispersed camping, camp fires, heightened risk of wildfire, litter and subsidies for predators, human waste, off-trail motorized, nonmotorized and mechanized travel.</p>	
H.65-399	<p>The Draft HCP and FEIS must detail the typical number of participants and length of stay associated with each competitive event, jamboree, and festival that occurs in Zone 6. The Draft HCP and FEIS must not allow jamborees focused on motorized recreation. Finally, the Draft HCP and FEIS must disclose the impacts of past competitive events to MDT and habitat in Zone 6 and assess whether these events can indeed be "covered activities." The coalition alleges that they cannot because of the high volume of visitors, and recreation, camping, fire and litter impacts.</p>	<p>Refer also to responses to A.51-91 and A.51-66.</p> <p>The events are not considered covered activities because they occur on Federal lands. The impacts of such events do not differ from the No Action Alternative because they would not be changed under any of the action alternatives. Impacts from past events are captured in the applicable Affected Environment sections of the EIS because they have contributed to the current condition of the area, and no further detailed analysis is warranted because it would not inform the decision maker's comparison among alternatives.</p>

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H.65-400	<p>16. In the Draft HCP, the Washington County Commission fails to identify an expected level of "take" of MDT, and, instead, adopts a so-called habitat surrogate: the acres of MDT habitat that would be subject to direct modification by the covered activities. HCP at ii, and 52-55.</p> <p>This is a marked departure from the 1996 HCP and ITP, which identified a numerical threshold for take - i.e., 1., 169 MDT individuals. This proposed habitat surrogate is arbitrary and capricious and fails to adhere to the requirements of the ESA.</p> <p>A habitat surrogate is a way of defining take by the amount of adversely affected habitat rather than by the number of individuals harassed or killed. The Service has previously explained that habitat surrogates may be "more practical and meaningful to monitor project effects" because they can "provide a clear standard for determining when the amount or extent of anticipated take has been exceeded and consultation should be reinitiated." Interagency Cooperation-Endangered Species Act of 1973, as Amended; Incidental Take Statements, 80 Fed. Reg. 26,832, 26,839 (May 11, 2015) (codified at 50 C.F.R. § 402.14(i)(l)(i))</p> <p>Service regulations list three elements necessary for a proper habitat surrogate. First, FWS must include a description of "the causal link between the surrogate and take of the listed species." 50 C.F.R. § 402.14(i)(l)(i). A "causal link" is an "articulated, rational connection" between the activity and the taking of species. <i>Ariz. Cattle Growers' Ass'n v. U.S. Fish &amp; Wildlife Serv.</i>, 273 F.3d 1229, 1250-51 (9th Cir. 2001). The Service establishes a causal link by examining the habitat requirements and behavior of the listed species and determining the effect of the expected habitat modification.</p>	<p>The use of a habitat metric to represent number of individual animals is consistent with HCP regulations and guidelines, including the 2015 Surrogate Rule at 80 FR 26842 (published on May 11, 2015). Refer also to responses to A.51-91 and A.51-92.</p>
H.65-401	<p>Second, FWS must explain "why it is not practical to express the amount or extent of anticipated take or to monitor take-related impacts in terms of individuals of the listed species." 50 C.F.R. § 402.14(i)(l)(i). There is no clear definition of what makes a numerical limit "not practical" (or not practicable), but the Service has indicated that the standard does not require impossibility. Finally, FWS must set "a clear standard for determining when the level of anticipated take has been exceeded." 50 C.F.R. § 402.14(i)(l)(i). A "clear standard" must be able to adequately trigger re-initiation of consultation, and it cannot be "vague and undetectable criteria," <i>Ariz. Cattle Growers' Ass'n</i>, 273 F.3d at 1250-51.</p>	<p>Refer to response to A.51-92.</p>

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H.65-402	<p>Washington County's habitat surrogate fails on the first two factors. First, the HCP asserts that its proposed habitat surrogate is causally linked to the take of MDT because "[t]racking take of MDT in terms of the acres of MD T habitat that is directly modified by Covered Activities is a surrogate metric with a rational link to the true number of taken individuals. All individual MDT that are reasonably certain to be incidentally taken by Covered Activities are those that use, at least occasionally, areas of MD T Habitat that would be directly modified by the Covered Activities." HCP at 54.</p> <p>But this surrogate only accounts for "direct" impacts of a Covered Activity, and the best available science establishes the indirect impacts on MDT of Covered Activities can extend for up to 4.6 kilometers from the area directly impacted. DEIS at 3-35. Indeed, the HCP itself acknowledges that "indirect impacts" from Covered Activities - including land clearing, building and construction, grazing and farming, utilities and other infrastructure, resource extraction and renewable energy development - may "take" MDT. HCP at 103-106. The HCP is not free to ignore the indirect impacts of the Covered Actions when determining a habitat surrogate, however. <i>Defenders of Wildlife v. US Dept. of Interior</i>, 931 F.3d 339 (4th Cir. 2019) (rejecting habitat surrogate because it failed to consider indirect impacts of covered activities).</p>	Refer to response to A.51-92.
H.65-403	<p>The habitat surrogate is also unlawful because the HCP fails to establish that relying on a numerical threshold is impractical. Indeed, the record here shows that the Service, UDWR, and others routinely collect population monitoring data on MDT, and it is no excuse to assert, as the HCP does, that existing population surveys methods "do not achieve perfect detection" of MDT in the area. HCP at 53. Perfection is not the appropriate standard here, and evidence of past surveys have been relied upon in rejecting habitat surrogates. See., e.g., <i>Defenders of Wildlife v. US Dept. of Interior</i>, 899 F.3d 260,276 (4th Cir. 2018); <i>Miccosukee Tribe a/Indians a/Fla. v. United States</i>, 566 F.3d 1257, 1276 (11th Cir. 2009) (finding unpersuasive FWS's argument that a species was difficult to detect when the record showed the species being counted regularly). For these reasons, the HCP's proposed habitat surrogate is unlawful, and any Incidental Take Permit, Biological Opinion, or Incidental Take Statement employing this surrogate will be unlawful, too.</p>	Refer to response to A.51-92.

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H.65-404	<p>7. The Draft HCP is Arbitrary and Capricious. Issue</p> <p>17. The Service Cannot Grant Washington County's ITP Application because it does not meet OMB requirements.</p> <p>According to the OMB Form 3-200-56 (October 2013), an applicant for a renewed or amended HCP has three options "for providing the required information for an incidental take permit application": Option I. New Incidental Take Permit &amp; Supplementary Information for Renewal or Amendment of an Existing Valid Permit (With Changes); Option II. Renewal or Amendment of an Existing Valid Incidental Take Permit (With Changes); and Option III. Renewal/Re-issue of an Existing Valid Incidental Take Permit (Without Changes) Using My Current Application Package On File. See Form 3-200-56. Options I and II require the applicant to file with the Service detailed information on the outline of the covered actions, species at issue, and changes to a prior application. See id Applicants choosing Option III, however, need not provide any new information, and only need to certify that "the statements and information submitted in support of my original application for a U.S. Fish and Wildlife Service Incidental Take permit [ ] are still current and correct and hereby request [ either renewal or re-issuance] of that permit without changes. Id. Applicants are warned, however, to "[s]ign the[ ] statement if you are applying to renew or reissue an existing valid Incidental Take permit without changes. If you are proposing changes to your Incidental Take permit, you must use Options I. and II. above."</p> <p>On January 29, 2015, Robert Sandberg of Washington County submitted an application seeking renewal of its prior Incidental Take Permit. In this application, Sandberg requested renewal under Option III, and requested renewal "without changes." See Federal Fish and Wildlife Permit Application Form (dated January 29, 2015). But, as is clear from review of the Draft HCP and associated NEPA documents, Washington County is not seeking a renewal of its prior ITP without changes; instead, Washington County is seeking a new ITP with modified "take" triggers, metrics and criteria, and other important changes (as discussed herein). As such, the Service is without authority to grant the ITP as requested, and any approval or grant of the application will be arbitrary and capricious.</p>	<p>Refer to responses to A.51-91 and A.05-2.</p>

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H.65-405	<p>18. The Northern Corridor Highway and Associated Mitigation is not a "Changed Circumstance."</p> <p>The Service cannot consider the NCH as a "changed circumstance" like climate change, drought, disease, or other factual situations generally beyond direct government control; instead, the Service must consider the NCH as a "covered activity." ESA regulations define changed circumstances as: "changes in circumstances affecting a species or geographic area covered by a conservation plan or agreement that can reasonably be anticipated by plan or agreement developers and the Service and that can be planned for (e.g., the listing of new species, or a fire or other natural catastrophic event in areas prone to such events)."</p> <p>50 CFR § 17.3. The NCH does not meet the definition for a changed circumstance, first, because it is a discretionary action within the County's control. Second, a changed circumstance must be covered by a conservation plan; and the County has expressly exempted the NCH from the revised and amended HCP. Indeed, the County was forced to ignore the NCH in its new HCP (and designate it a 'changed circumstance' versus' covered action because the NCH violates the original conservation plan that the county claims it is carrying forward from the 1995 HCP: "The impacts of take authorized with the Original ITP and reauthorized with the Extended/Amended ITP are fully offset by the conservation program of the 1995 HCP (see Chapter 6.2.1 ). This conservation program is carried forward and expanded in this Amended HCP."</p> <p>Draft HCP at 69.</p> <p>Yet the Reserve is the core of the conservation plan implemented in the 1995 HCP, which noted "[t]he central conservation measure of the 1995 HCP was the creation of the 61,022-acre Reserve."</p> <p>Draft HCP at 2.</p> <p>The Northern Corridor Highway undermines the basic intended function of the Red Cliffs Desert Reserve to off-set take authorized in the 1995 ITP. Thus, the Northern Corridor Highway cannot be considered a covered activity. In an attempt to skirt the law, the county improperly dresses the Northern Corridor up in the guise of a "Changed Circumstance."</p> <p>Third, the definition points toward changed circumstances as planned responses to stochastic events outside of an applicant's control. The definition does not suggest that a changed circumstance can be used as a mechanism to promote incompatible uses, like the NCH, which would fragment and undermine the central mitigation feature of the 1995 HCP.</p>	<p>Changed circumstances are defined in the No Surprises rule as “changes in circumstances affecting a species or geographic area covered by [an HCP] that can reasonably be anticipated by [plan] developers and the Services and that can be planned for (e.g., the listing of new species, or a fire or other natural catastrophic event in areas prone to such events)” (50 CFR 17.3). Based on this definition, the Northern Corridor may be considered a changed circumstance.</p> <p>Refer also to response to A.51-93.</p>

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H.65-406	<p>19. The Draft HCP Failed to Examine a Reasonable Range of Alternatives As discussed in detail in the NEPA section of these comments, BLM and Washington County must consider all viable alternatives to constructing the NCH through the Red Cliffs NCA, including an alternative that would extend the Incidental Take Permit without the Northern Corridor Highway was not considered. The Red Cliffs Conservation Coalition scoping comments requested study of this alternative. The BLM rejected this alternative without explanation, and the draft HCP does not consider this approach either.</p>	<p>If the applicant’s HCP meets the issuance criteria and is statutorily complete, the USFWS shall issue an ITP. The USFWS’s HCP Handbook explicitly states, “the Services cannot issue permits based on alternative versions of the HCP that the applicant did not propose” (USFWS and NMFS 2016 at 16-4). Accordingly, because the County (the applicant) did not propose an alternate version of the HCP, it would be inappropriate for the USFWS to unilaterally propose and analyze the impacts of an alternative version of the HCP/ITP. The USFWS did consider an alternative to issuing the ITP under the No Action Alternative, described in EIS Section 2.4.</p> <p>However, USFWS notes that in Section 5-6 of the HCP Handbook (USFWS and NMFS 2016): The regulations do not require that the HCP include a specific number of alternatives to the taking. Besides the proposed alternative, HCPs typically include a no-action alternative, in which the applicant would not proceed with their proposed project or modify it to avoid take altogether. Other types of alternatives will depend on the situation but can include implementing the project in a different location or changing the project or land use in a way that would eliminate or reduce the take in a meaningful way (e.g., restricting the timing of certain timber harvest activities to when grizzly bears are denning).</p>

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H.65-407	<p>20. The draft HCP improperly carries forward the original HCP's No Surprises clause despite the foreseeable Northern Corridor Highway.</p> <p>Contrary to Washington County's claims that "it has met or exceeded its specified responsibilities for addressing the impacts of the previously authorized incidental take and that these new commitments are above and beyond the actions required of it to minimize and mitigate the impacts of the reauthorized incidental take," the facts here show that the HCP and ITP has not been successful in stopping or even slowing the rapid decline of threatened tortoises in the RCDR nor the larger plan area of the UVRU. The Draft HCP at 78 states ("However, the County asserts that it has met or exceeded its specified responsibilities for addressing the impacts of the previously authorized incidental take and that these new commitments are above and beyond the actions required of it to minimize and mitigate the impacts of the reauthorized incidental take. The County may rely on the No Surprises assurances afforded to it by the good faith completion of its identified responsibilities under the 1995 HCP.").</p> <p>Washington County has failed to implement a number of necessary conservation measures that could have slowed or mitigated for this decline, including with respect to adequate post-fire RCDR habitat rehabilitation, stopping chronic RCDR enforcement problems such as illegal social training and dogs off leash, and controlling rising raven predation. As noted extensively elsewhere in these comments, the RCDR tortoise population has declined by 41 percent (See DEIS Volume 2, page 3-48) during the past twenty years. The UVRU tortoise population has declined by 24.3 percent (Mcluckie 2018).</p> <p>Although an HCP may be renewed, FWS must evaluate the Draft HCP/ITP application based on the current law and best available scientific information. The previous 1995 HCP and FWS BO relied on scientific information and analysis that are now substantially outdated and no longer reliable. The county nevertheless expects FWS to accept and carry forward this 25-year-old information and analysis in terms of the previously authorized level of incidental take and to maintain the previous No Surprises assurances.</p> <p>Meanwhile, the county proposes to construct the NCH through RCDR Zone 3, in designated tortoise critical habitat, which the original HCP found was the "core area" for tortoise protection and that the establishment of the RCDR was the dominant benefit and central mitigation feature of the original HCP. When the county previously put forward the proposed NCH, FWS properly found that it would be a clear violation of the original HCP.90 In its renewal application, the county is attempting to "have its cake and eat it too" by wanting to carry forward its previous HCP benefits while simultaneously undermining that same HCP through its insistence on building the NCH.</p>	<p>No Surprises assurances applies only to the duration of the existing permit (USFWS and NMFS 2016, p. 12-10); the 1996 ITP expired in 2016. Once amendments associated with the permit are finalized, No Surprises assurances that are described in USFWS regulations (63 FR 8859, February 23, 1998) would apply to the Amended HCP and ITP for the duration of the permit because the Amended HCP contains enumerated changed circumstances.</p> <p>Refer also to response to DP-04.</p>

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	<p>As required under ESA Section 10 (a)(2), "the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking." In this case, the draft HCP and associated DEIS identify many feasible conservation measures that can and should be implemented by the county because they are clearly within this "maximum extent practicable" standard. However, the county is improperly attempting to condition implementation of some of those otherwise necessary and practicable conservation measures on approval of the harmful NCH.</p> <p>The county's overt willingness to violate the original HCP by constructing the NCH, combined with the unfortunate scientific reality of rapidly declining tortoise populations, should negate the previous incidental take authorization and No Surprises benefits and necessitate a de novo review of the current draft HCP under the appropriate scientific and legal standards.</p>	

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H.65-408	<p>21. The draft HCP improperly and falsely claims that HCP implementation has been successful despite a 41 percent decline of tortoises in the RCDR and a 24 percent decline of tortoises in the UVRU.</p> <p>The draft HCP fails to include revisions appropriate to address changes to the status of the threatened MDT. The DEIS and draft HCP both document a steady decline in MDT across the range, the UVRU, the Reserve, and in Zone 3, the location of the proposed NCH:</p> <ul style="list-style-type: none"> <li>• Table 6 on pg. 33 of the draft HCP shows a 24.3% reduction in tortoise numbers in the Upper Virgin River Recovery Unity.</li> <li>• Pg. 3-47 in Vol. 2 of the draft EIS says that "the 2014 range-wide Mojave desert tortoise population estimate represents a decline of almost 125,000 adults over a 10-year period, a nearly 37 percent overall population decline (Allison and McLuckie 2018)."</li> <li>• Pg. 3-48 in Vol. 2 of the draft EIS says that "within the Reserve, UDWR surveys between 1999 (3,404 Mojave desert tortoises) and 2020 (2,011 Mojave desert tortoises) show an overall decline of 41 percent (UDWR 2020)."</li> <li>• Table 3-53 in Vol. 2 of the draft EIS shows a 31 % decline in MDT abundance within Zone 3 between 2017 and 2019.</li> </ul> <p>Declines of MDT in all recovery units in the state of California led to a 2019 petition to upgrade the State listing of the Mojave desert tortoise from threatened to endangered. In this draft HCP, agencies are facilitating development of the NCH inside a dedicated Reserve where MDT are already at risk of extinction, in addition to applying to take MDT on 66,301 acres from occupied and potential habitat outside the Reserve.</p> <p>Equally important is the fact that 22% of MDT designated critical habitat in the UVRU is no longer suitable for MDT in 2020. Draft Biological Report at 14. To prevent MDT extirpation in the UVRU, all remaining critical habitat in a dedicated Reserve must remain protected. The draft HCP must respond to the documented declines of MDT and must include revisions that enhance protections for the MDT in the Reserve, first and foremost by denying construction of the NCH.</p>	Refer to response to A.51-183.

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H.65-409	<p>22. The draft HCP ignores possible future up-listing of Mojave desert tortoises from threatened to endangered species status as a foreseeable "changed circumstance," and fails to identify appropriate conservation measures.</p> <p>Since 2004, MDT populations throughout the listed range, minus the Northeastern Mojave Recovery Unit, have declined by 37% (Allison and Mcluckie 2018). Populations in the Upper Virgin River Recovery Unit have declined by 24.3% between 2004 and 2014. In California, declines in all recovery units within the state led to a 2019 petition to upgrade the State listing of <i>Gopherus agassizii</i> from threatened to endangered. The draft HCP must consider the up-grading of the Mojave desert tortoise as a changed circumstance. In failing to do so, the draft HCP is arbitrary and capricious.</p>	<p>The protections given to the Mojave desert tortoise would not change if the species was uplisted from threatened to endangered status. The conservation measures of the Amended HCP already address the Mojave desert tortoise as if all take is prohibited unless authorized by the USFWS.</p> <p>Refer also to response to A.51-252.</p>
H.65-410	<p>23. The draft HCP and associated DEIS analysis improperly fail to address strong public scoping comments requesting consideration of structural changes to how the HCP would be administered and implemented going forward.</p> <p>In response to the notice of intent to prepare an environmental impact statement, the undersigned local, regional and national conservation and recreation groups submitted hundreds of scoping comments. Washington County, BLM and the Service have ignored many of these comments, undermining the very purpose of NEPA's public engagement requirements. In addition, over the past 20+ years, Washington County continues to dominate HCP administration and has demonstrated a clear pattern of bias toward development interests when potential conflicts with to1toise conservation occur. Likewise, the HCAC and TC have consistently fallen in line with whatever county officials want, which is unsurprising because the county commission must approve all nominations to serve on the HCAC which gives the county a veto over HCAC and TC participation.</p> <p>FWS and BLM must not allow this county dominance to continue because it is tantamount to them abdicating their independent federal management authority to county officials. FWS and BLM should assume more prominent roles in future HCP administration to ensure diversity, transparency, and accountability.</p>	<p>The HCP is the applicant's document. It is a key component of their application for ITP for listed species that would result from non-Federal activities (Section 10(a)(1)(B)). To obtain a permit for incidental take of listed species that would result from non-Federal activities (Section 10(a)(a)(B)), an applicant must develop a conservation plan that meets specific requirements identified in Section 10(a)(2)(A) of the ESA and its implementing regulations at 50 CFR 17.22 (endangered species) and 17.32 (threatened species), and 50 CFR 222.25, 222.27, and 222.31 (see the HCP Handbook Toolbox). The USFWS reviews the HCP and ensures that it meets all requirements and issuance criteria.</p> <p>Monitoring and reporting are mandatory elements of all HCPs (50 CFR 17.22, 17.32, and 222.307; 65 FR 35242 [June 1, 2000] (refer to the HCP Handbook Toolbox). When properly designed and implemented, they should provide us with the information we need to determine whether or not:</p>

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		<ul style="list-style-type: none"> <li>• a permittee is in compliance with their ITP and HCP</li> <li>• progress is being made toward meeting an HCPs biological goals and objectives</li> <li>• the HCP's conservation program is effective at minimizing and/or mitigating impacts, and</li> <li>• there is a need for adjusting measures to improve the HCP's conservation strategy. As such, the USFWS reviews monitoring reports and sits on the HCAC and the TC in a voting capacity.</li> </ul> <p>Refer also to response to A.51-91.</p>

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H.65-411	<p>Issue</p> <p>1. The Draft Implementation Agreement is Inadequate</p> <p>The draft implementation agreement (IA) is inadequate because it either omits or provides insufficient information under the six required elements of an IA. These required elements include:</p> <p>(1) defines the obligations, benefits, rights, authorities, liabilities, and privileges of all signatories and other parties to the HCP;</p> <p>(2) assigns responsibility for planning, approving, and implementing specific HCP measures;</p> <p>(3) specifies the responsibilities of the FWS, NMFS, or other state and Federal agencies in implementing or monitoring the HCP's conservation program;</p> <p>(4) provides for specific measures when habitat acquisition, transfer, or other protections are part of the HCP's mitigation program;</p> <p>(5) establishes a process for amendment of the HCP, here necessary; and</p> <p>(6) provides for enforcement of HCP measures and for remedies should any party fail to perform on its obligations under the HCP.</p> <p>The FWS HCP Handbook provides IA guidance. While an IA is not required for some simple HCPs, it is strongly recommended when, as in this case, there are multiple parties with different legal authorities, jurisdictional boundaries, and HCP related roles and responsibilities. When an adequate IA has been prepared and properly executed, it is included among the ITP's terms and conditions, and, if the IA or other of those terms and conditions are violated, the ITP may be revoked. Washington County's draft IA is therefore of crucial importance, as it would play a pivotal role in ensuring the future success of HCP implementation.</p> <p>Unfortunately, after reviewing the county's draft IA, we find that it is clearly inadequate. It ignores some required elements and fails to provide sufficient information for other elements. Section 6(B) of the draft IA provides a key example. It notes that each party agrees to fulfill its obligations under the IA and HCP, but the IA never expressly identifies these duties and obligations. The central purpose of the IA is to lay out these specific duties and obligations for each party to the IA. By simply citing the draft HCP, the draft IA defies this purpose. In addition, Section 6(0)(1)-(3) provides for some Party commitments but does not describe specifically what they are. Indeed, if an IA is needed, then its job is to give specific direction to each Party so there can be no doubt or ambiguity about what they are expected to do and when they must do it. The draft IA fundamentally fails to do that.</p>	Refer to response to A.44-4.

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H.65-412	<p>J. The reason the County seeks a renewal of the Original ITP is to avail non-federal property owners of the previously authorized, but as yet unused, take of MDT under the Original ITP for the next 2 5 years</p> <p>Issue</p> <p>2. The county's "reason" for this ITP renewal is inappropriate. The county should not be able to carry forward and use the previously authorized take from the 1996 ITP. This take level is based on outdated science and does not reflect the current facts. Given the significant and continuing decline in RCDR, NCA, and UVRU tortoise populations in the intervening quarter-century, a new take level must be determined consistent with the current science, factual situation, and laws. The "reasonreason" for this ITP should be to ensure efficient, effective, and timely implementation of an approved HCP. Doing so would advance bona fide tortoise conservation efforts while allowing development to continue on non-federal lands with tortoise habitat.</p>	Refer to response to A.44-5.
H.65-413	<p>K. In cooperation with the Parties and other stakeholders, the County prepared and submitted to the Service in 2020 an amended and restated Washington County Regional Habitat Conservation Plan (the "Amended HCP"), which addresses certain changes in regulation and scientific data that have arisen since the approval of the 1995 HCP. For example, since the approval of the 1995 HCP, the Service has converted to a formal rule the Service's prior "No Surprises" or "Deal-is-a-Deal" Policy. 50 CFR I 7.22(b)(5). In addition, the Service has adopted across the range of the MDT new descriptions of potential MDT habitat as well as new estimates of MDT population densities within habitat.</p> <p>L. For the foregoing reasons, in addition to the requested renewal of the Original ITP, the Service determined that it was necessary to amend in certain, limited respects the Original JTP and, therefore, has issued to the County Incidental Take Permit Number 036719-1 (the "New ITP"), which has the effect of both renewing the term of and amending certain provisions of the Original ITP.</p> <p>Issue</p> <p>3. This is the county's way of saying that it wants to continue under the previous HCP/ITP, and it only supports revisions that are based on new FWS ESA regulations and policies. As previously indicated, it is not appropriate to "carry forward" the previous HCP and ITP provisions in light of the significant changed circumstances that have occurred over the past quarter century.</p>	Refer to response to A.44-5.

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H.65-414	<p><b>3. Purposes</b> The purposes of this IA are:</p> <p><b>1.</b> To ensure the cooperative implementation of the Amended HCP by the Parties  <b>11.</b> To create an agreement by which the State Parties (i.e., Utah Department of Natural Resources and the School and Institutional Trust Lands Administration) may, in exchange for certain commitments in the Amended HCP, rely on and benefit from the incidental take authorization of the New ITP for their Covered Activities; and  <b>111.</b> To describe certain terms not addressed in the Amended HCP, but which are important to the implementation thereof in accordance \With the mutual intent of the Parties.</p> <p>Issue</p> <p><b>4.</b> It is telling that there are no purposes related to "successful" implementation of the HCP nor anything about stopping or slowing the current rapid decline in RCDR, NCA, and UVRU tortoise populations. This draft TA is clearly biased toward facilitating future highway building and other developments. The dominant purpose of an IA should be to ensure that the HCP is properly and adequately implemented to advance the conservation and recovery of the ESA listed species.</p>	Refer to response to A.44-4.
H.65-415	<p><b>C. Conflicts and Control</b> The terms of this IA and the terms of the Amended HCP shall be reasonably interpreted to be supplementary to and consistent with each other. In the event of any direct conflicts between the terms of this IA and the Amended HCP, the terms of the IA shall control.</p> <p>Issue</p> <p><b>5.</b> Note that when any conflict occurs, the IA controls rather than the HCP. This is backward since the HCP is the basis for FWS issuance of the ITP. This is also problematic because this draft IA improperly relies on the HCP in terms of the specific duties of the Parties. A vague and incomplete IA should not supersede the HCP.</p>	Refer to response to A.44-4.

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H.65-416	<p><b>D. Specific Commitments</b>                      The following commitments contained within the Amended HCP are highlighted for clarity:                      1. Commitments of County                      11. Commitments of SITLA                      111. Commitments of UDNR                      Issue                      6. Note that the BLM and FWS commitments are not included, even though they are Parties to this agreement. And nothing is provided to describe the specific County, SITLA, and UDNR commitments.</p>	Refer to response to A.44-4.
H.65-417	<p><b>5. Effective Date and Term</b>  <b>A. Previous Agreement Superseded</b>                      This TA supersedes and replaces the First IA in its entirety.                      Issue                      7. Note that the previous ITP is superseded once the New ITP takes effect. Elsewhere the county wants to "carry forward" or "renew" past HCP and ITP provisions, but apparently not in this draft IA provision. Despite the county's inconsistencies, we concur that a new TA should supersede a previous one.</p>	Refer to responses to A.44-4 and A.44-5.

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H.65-418	<p><b>7. B. Effect of a Certificate Holder Default</b>            So long as the New ITP remains in effect and a Certificate Holder is in compliance with applicable provisions of the Amended HCP, that Certificate Holder shall be deemed to have with respect to the Certificate Holder's Covered Activity, the full benefits and authorities of the New ITP. In the event that the Service may seek to suspend, terminate, or revoke the Original ITP for reasons not the fault of a Certificate Holder, and that Certificate Holder is in compliance with the aforementioned provisions, the Service shall seek to craft a remedy, on a case-by-case basis, that does not affect that Certificate Holder's rights, benefits, and responsibilities under the Original ITP prior to suspending, terminating, or revoking the Original ITP. If it is not practicable to craft such a remedy and the Service suspends, terminates, or revokes, the Original ITP, the Service will process for issuance to any such Certificate Holder an ITP conferring the same rights, benefits, and responsibilities with respect to the Certificate Holder's Covered Activities, without additional requirements or conditions beyond those applicable to the Certificate Holder under the Amended HCP. Additionally, the Service agrees that a breach by a Certificate Holder of its obligations will not be considered a breach by any other Certificate Holder. In the event a Certificate Holder has materially breached its obligations and, after reasonable notice and opportunity to cure, such Certificate Holder fails to cure, remedy, rectify, or adequately mitigate the effects of such breach, then the County or the Service may terminate the Certificate Holder's assurances under the New ITP.</p> <p>Issue            8. This provision is poorly written and confusing. It seems to incorrectly go from the New ITP (2020) to the Original ITP (1996), when this draft IA says that it entirely supersedes the Original ITP. If superseded, there should be no legal effect of nor references to the Original ITP.</p>	Refer to response to A.44-4.

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H.65-419	<p><b>8. Miscellaneous Provisions</b>  <b>A. Nullification of Agreement</b>                      In the event that the New ITP is revoked in its entirety or attempted to be substantially modified without the consent of the Parties, this IA shall be null and void and, in such event, no Party shall be bound by its terms.</p> <p><b>Issue</b>                      9. The "attempted to be substantially modified" text is improperly vague. It does not identify which Party determines when this condition may be triggered, how they make that determination, and how "attempted" and "substantially modified" are defined. For example, if the dwindling tortoise populations crash, and FWS properly proposes to strengthen the HCP and/or ITP as a last-ditch effort, that proposal might be construed to constitute an "attempt" to "substantially modify" and therefore cause automatic nullification of the IA, thereby violating the IA as a term and condition of the issued ITP. This provision is so wide open that it may give any Party the ability to walk away from its HCP, ITP and IA duties if it dislikes something proposed by FWS or perhaps even third-parties such as environmental groups.</p>	Refer to response to A.44-4.
H.65-420	<p><b>E. Availability of Funds</b>                      Implementation of this IA and the Amended HCP by the Parties is subject to the requirements of the federal Anti-Deficiency Act, the laws of the State of Utah, and the availability of appropriated funds from each Party respectively. The Anti-deficiency Act prohibits Federal agencies from incurring obligations or making expenditures (outlays) in excess amounts available in appropriations or funds (31 U.S.C. § 1341 (a)(l)). Agencies of the State of Utah are likewise enjoined in Utah Code § 63G-6a-1204 from entering into contracts or incurring obligations that commit funding beyond that appropriated. Therefore, Federal and state agency support of the conservation measures in the HCP is contingent on having sufficient funding over the ten<sup>11</sup> of the HCP.</p> <p><b>Issue:</b>                      10. On its face, this provision looks reasonable. However, we are concerned that it may become a potential "funding escape hatch" for four of the key Parties (BLM, FWS, UDWR, SITLA). There is nothing about these Parties developing and submitting budget/appropriations requests to secure adequate funding to perform their respective HCP, JTP, and IA roles and responsibilities. If the IA is to be implemented in good faith, we believe that the federal and state Parties should be obligated to use their best efforts" to try to obtain the necessary funds. Politicians tend to fund "squeaky wheels". If these Parties are silent or apathetic about making funding requests, they are likely to receive inadequate funding. They should be obligated to ask for what they need.</p>	Refer to response to A.44-4.

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H.65-421	<p><b>F. No Third-Party Beneficiaries; Limitation of Remedies</b>            Without limiting the applicability of rights granted to the public pursuant to the ESA or other applicable law, and except as specifically provided with respect to the Beneficiaries, this 1A shall not create any right or interest in the public, or any member thereof, as a third party Certificate Holder hereof, nor shall it authorize anyone not a Party to this IA to maintain a suit under the provisions of this IA. The duties, obligations, and responsibilities of the Parties to this IA with respect to third party beneficiaries shall remain as imposed under applicable provisions of state and Federal law.</p> <p>Issue:            11. This is clearly intended to shut out the public and shield the Parties from any annoying "external" public accountability. Fortunately, this provision cannot supersede any legal standing for the public under ESA, NEPA, OPLIVIA, FLPMA, or APA.</p>	Refer to response to A.44-4.
H.65-422	<p>Notwithstanding anything contained in the IA to the contrary, the Parties hereto expressly agree and acknowledge that any remedy for a material breach of this IA by another Party is strictly limited to suspension of termination of this IA or, in the case of a breach which also qualifies as a breach by the County of the New ITP, the Service shall have such remedies against the County with respect to such New ITP as are available to the Service under applicable law and regulation.</p> <p>Issue:            12. This provision is improper and too limited. Except for losing ITP coverage for a breach, all of the Parties (save the county) would apparently be shielded from any FWS or DOJ enforcement action for illegal MDT take. A breach would presumably occur by a Party (including the approved municipalities and developers that receive certificates from the county) when MDT take occurred outside of the HCP/ITP "covered activities." In essence, if breaches are triggered under this provision, some illegal MDT take has likely already happened. Breaches are outside of the ITP's protection, and therefore we seriously question the need or justification for this provision. No IA provision should be allowed to weaken or undermine the explicit HCP and ITP provisions, nor potentially hinder any otherwise necessary and appropriate enforcement actions for illegal MDT take.</p>	Refer to response to A.44-4.

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H.65-423	<p><b>I. Force Majeure</b>                      If the Parties are wholly or partially prevented from performing obligations under this IA because of unforeseeable causes beyond the reasonable control of and without the fault or negligence of the Parties (Force Majeure), including, but not limited to, acts of God, labor disputes, sudden actions of the elements, epidemics, or actions of nonparticipating Federal or state agencies or local jurisdictions, the Parties shall be excused from whatever performance is affected by such unforeseeable cause to the extent so affected and such failure to perform shall not be considered a material violation or breach, provided that nothing in this section shall be deemed to authorize any Party to violate the ESA and provided further that: (i) the suspension of performance is of no greater scope and no longer duration than is required by the Force Majeure; (ii) within forty-five (45) days after the occurrence of the Force Majeure, affected Parties shall give the Service written notice describing the particulars of the occurrence; and (iii) Parties use their best efforts to remedy their inability to perform (however, this section shall not require the settlement of any strike, walk-out, lock-out, or other labor dispute on terms which in the sole judgment of the Parties are contrary to their interest).</p> <p>Issue:                      13. This looks like standard text. However, some of the terms are vague and should be clearly defined. For example, "epidemics" because of the current COVID 19 pandemic. This pandemic has properly caused the need for important safety precautions, but it has not prevented most government and business functions from continuing or resuming. "Sudden actions of the elements" is also impermissibly vague.</p>	Refer to response to A.44-4.
H.65-424	<p><b>M. No Admission</b>                      Neither the application for the Original ITP renewal nor the execution of this IA by the Parties shall be construed, considered, or deemed to be an admission by the Parties that any take of any listed species has occurred or will occur.</p> <p>Issue:                      14. This provision is illogical and should be deleted. This draft IA is about implementing a new ITP and HCP that are necessary to allow development on non-federal lands to proceed in MDT habitat, where take is likely to occur. In addition, the county has had an ITP for nearly a quarter-century that likewise enabled such take. The Parties may not want to "admit" that any MDT take "has occurred or will occur" but such take has and likely will continue to occur. This provision defies reality.</p>	Refer to response to A.44-4.

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H.65-425	<p><b>N. Compliance with Regulations</b> Nothing in this IA modifies, in any manner, any applicable obligation to seek the approval of the appropriate Federal land manager prior to taking any action associated with implementation of the Amended HCP on Federal lands.</p> <p>Issue: 15. This provision seems outside the proper scope of an IA because the HCP/ITP only cover MDT incidental take on non-federal lands. Perhaps BLM and FWS representatives requested this provision as a reminder to the other Parties. If so, that would be acceptable.</p>	Refer to response to A.44-4.
A.51-28	Please note on page 14 of our scoping comments (Desert Tortoise Council 2020), we specifically asked that “After revealing these statistics [i.e., that 257 tortoises were displaced since 1996, which we have since learned is more than 500 animals], please show a frequency distribution of the numbers of tortoises taken and the numbers of acres developed on a yearly basis, beginning in 1996 and extending to 2019.” The DEIS has failed to provide this information, is deficient in this respect, which must be resolved in the Final EIS.	Table 9 of the Amended HCP provides a complete summary of Mojave desert tortoises processed through the HCP between 1996 and 2019.
A.51-48	<p>25 3-43 3-44 3.5.1.1</p> <p>Comment: With regards to recent tortoise translocations, has there been any follow-up monitoring on the short-distance translocation of 15 tortoises into Zone 6 areas from the Lakes development? We ask that this information be added to the translocation discussion in the Final EIS.</p>	Refer to response to A.51-43.
A.25-24	<p>As part of the HCP and ITP, an Implementation Agreement must be included. We are curious about this portion of the Implementation Agreement that references “No Surprises” or “Deal-is-a-Deal”:</p> <p>K. In cooperation with the Parties and other stakeholders, the County prepared and submitted to the Service in 2020 an amended and restated Washington County Regional Habitat Conservation Plan (the “Amended HCP”), which addresses certain changes in regulation and scientific data that have arisen since the approval of the 1995 HCP. For example, since the approval of the 1995 HCP, the Service has converted to a formal rule the Service’s prior “No Surprises” or “Deal-is-a-Deal” Policy. 50 CFR 17.22(b)(5). In addition, the Service has adopted across the range of the MDT new descriptions of potential MDT habitat as well as new estimates of MDT population densities within habitat.</p> <p>The “No Surprises” or “Deal-is-a-Deal” policy—now apparently a “formal rule” states:</p>	<p>No Surprises assurances applies only to the duration of the existing permit (USFWS and NMFS 2016, p. 12-10); the 1996 ITP expired in 2016. Once amendments associated with the permit are finalized, No Surprises assurances that are described in USFWS regulations (63 FR 8859, February 23, 1998) would apply to the Amended HCP and ITP for the duration of the permit because the Amended HCP contains enumerated changed circumstances.</p> <p>Refer also to response to DP-04.</p>

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	<p><b>NO SURPRISES</b></p> <p>The "No Surprises" rule was finalized on February 23 of last year. What this rule does is guarantee a landowner who has completed a Habitat Conservation Plan -- an HCP - - that a deal is a deal. What we agreed to at the outset of the plan -- the amount of land, water, and financial resources involved, the restrictions that apply -- these things will not change. This makes HCPs much more appealing to landowners and has attracted a number of new applicants.</p> <p>So, our confusion pertains to earlier agreements between the county and USFWS. If at the time of the 1995 HCP it was agreed that there would be no new roads (i.e., "restrictions that apply) through Red Cliffs, that seems to have been an agreement that should apply under the "No Surprises" or "Deal-is-a-Deal" rule. It does not seem that the county should now be able to come back with a "deal breaker"—the NC ROW—and have USFWS accept that even under changed circumstances. USFWS needs to explain how this is being allowed. It seems from this 1994 Congressional testimony regarding the issue that the "No Surprises/Deal-is-a-Deal" rule (then a policy) favors the landowners more than USFWS.</p> <p>It basically is that, in a nutshell, the "no surprises" policy really narrows and almost precludes being able to — the Fish and Wildlife Service, when they enter into these plans, they have a duty to use all their authorities in order to preserve and protect a species, to not jeopardize a species, which is basically ensuring survival and recovery of that species. Basically what we're saying is that this policy does not further that and that the Service is in violation of that duty by enacting this policy.</p> <p>They are also violating really what the letter and spirit of Section 10 was when Congress enacted it in 1982. When Congress enacted Section 10, they were basically basing it on the San Bruno habitat conservation plan. They were using that as a model. In that plan, there was a section in there where they said essentially 90 percent of the habitat, if further mitigation measures were going to be required, they would then go back and reevaluate the plan and assess further mitigation.</p> <p>In this instance, under the "no surprises" policy, the Services have essentially narrowed it down to where the mitigation measures are going to be limited to that, to the extent that only the Fish and Wildlife Service or the National Marine Fisheries Service will be able to implement further mitigation. We understand, even with our limited knowledge about the rule, that it was established to help USFWS secure HCPs, which otherwise might have been a difficult sell. That's understandable and has helped to develop HCPs and relationships. But relationships work two ways as should this "contract" between that are party to the HCP. The county agreed to no new roads and there should be No Surprises now about the issue.</p> <p>The draft HCP Glossary states regarding "Changed Circumstances":</p>	

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	<p>Defined in the No Surprises rule as “changes in circumstances affecting a species or geographic area covered by [an HCP] that can reasonably be anticipated by [plan] developers and the [USFWS] and that can be planned for (e.g., the listing of new species, or a fire or other natural catastrophic event in areas prone to such events).” (50 CFR §17.3; HCP Handbook:9-38).</p> <p>Given this information and the fact that USFWS also appears to be considered under the No Surprises rule, USFWS should stick to their past no-Northern Corridor position since developers are able to maintain their position under which their properties are protected outside Red Cliffs for development.</p>	
13435-3	<p>As BLM is aware, the original HCP to protect threatened MDT along with associated protection for other desert sensitive species in the Red Cliffs Desert Reserve (RCDR) did not allow for a new road within the RCDR. To mitigate no new road inside the Reserve HCP an agreement was reached with original local HCP drafting participants to allow construction of four-highway within the existing Skyline Drive (now Red Hill Parkway) to connect U-18 to Washington City. Believe opposition to a new road in the Reserve has been consistent, up until this point, by USFWS in association with the HCP HCTC, and HCAC. Now, the only conclusion for which the DEIS Alternative 3 is approved by Department of interior would be entirely political contrary to congressionally mandated ESA protection criteria for endangered and threatened species.</p>	<p>The HCP as proposed is a key component of Washington County’s application for an ITP for listed species that would result from non-Federal activities (Section 10(a)(1)(B)). The USFWS reviews the HCP and ensures that it meets all requirements and issuance criteria.</p> <p>The construction of the Northern Corridor through the Red Cliffs Desert Reserve is not a Covered Activity under the HCP and subsequently, any take associated with the highway would not be authorized by the ITP issued to the County by the USFWS. The analysis of the highway construction on the Reserve is conducted through a process under Section 7(a)(2) of the ESA with BLM. However, the applicant has acknowledged the impact that the Northern Corridor would have on the conservation program for their HCP by including its construction as a changed circumstance in the HCP. As such, they have proposed a suite of conservation measures that are intended, to the maximum extent practicable, minimize and mitigate the impacts of the taking anticipated in their HCP should the changed circumstance of the Northern</p>

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		<p>Corridor be triggered. In 2007, the USFWS expressed concerns about potential impacts from roads in the Reserve and the UVRU to Mojave desert tortoise. The USFWS was also concerned about how roads in the Reserve would impact the HCP conservation program. At the time, Zone 6 was not offered as an addition to the Reserve and less was known about the population of Mojave desert tortoise in the vicinity of Zone 6. The USFWS must consider the proposed actions and the included conservation measures as part of an analysis. It is USFWS's responsibility to consider the proposed action and seek solutions to potential conflicts as well as seek offsetting measures to impacts of proposed actions. USFWS will continue to seek to minimize and mitigate impacts to avoid jeopardy and to ensure compliance with ESA Section 7 and Section 10.</p> <p>If the applicant's HCP meets the issuance criteria and is statutorily complete, the USFWS shall issue an ITP. The USFWS's HCP Handbook explicitly states, "the Services cannot issue permits based on alternative versions of the HCP that the applicant did not propose" (USFWS and NMFS 2016 at 16-4). Accordingly, because the County (the applicant) did not propose an alternate version of the HCP, it would be inappropriate for the USFWS to unilaterally propose and analyze the impacts of an alternative version of the HCP/ITP.</p>

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		The USFWS’s Findings and Recommendations Memorandum documents the USFWS’s conclusions on permit issuance in response to the application and HCP, including the statutory and regulatory requirements, Section 10(a)(2)(B) issuance criteria, and responses to public comments received.
14065-5	<p>The draft amended HCP and EIS fails to identify the irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented. The HCP new zone encompasses a large area of land to be included in the HCP however, it then describes great discretion in choosing which parcels would be ultimately protected and to what extent. There are large areas of State Trust Lands located within the new proposed zone, the Applicant states that State Trust Lands is a party to the contract, however, it also recognizes that there is no authority to impose land swaps or conservation on SITLA ground, nor is there any commitment from SITLA to perform any action under the contract. This is the same situation we had under the first HCP, and as a result, State Trust Lands still encompass a large area of zone three and are now wanting to build a freeway and develop portions of it. The HCP and EIS are not specific as to an actual plan, are given extreme discretion which could result in State Trusts Lands non-compliance. As a result, the specific impacts cannot be determined and should be further narrowed down with all parties to the contract having signed a letter of intent and commitment to follow through with a precise plan, precise acreage, and defined areas.</p> <p>In addition, any private inholdings in the proposed area should be approached and the sale of their land put into a binding agreement before the impacts of the proposed project can be considered. The last HCP failed to purchase or negotiate with a certain private owner, who demanded unreasonable payments and caused thousands of dollars in negotiations, and public dollars for multiple land swap proposals prepared by the BLM. These proposals were submitted for public review and contained extensive evaluations, costing time and money. This would be avoided in the future if any private land owner within the proposed HCP zone signs a binding agreement for sale or swap, to be included in the EIS so the full extent of the impacts of any take permits issued can be evaluated.</p>	Refer to response to H.65-352.

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14065-10	<p>The draft HCP and EIS attempt to include "left over" take permits that were not utilized during the first HCP approved plan. This is not permitted or in line with the intent of relevant sections of the E.S.A. A take permit is just that, a permit. It has requirements and an expiration date. New information and studies should be used in reviewing a new permit, that does not include "left over" take permits that were unused. The county seems to argue that they have "purchased" a number of take permits through the first HCP plan, and it would be wasted money if they didn't somehow get to use those permits. This is absurd, the goal of the HCP is not to bank take permits but to ultimately have the least amount of impact and "take" as possible throughout the plan period. As a result, take permits cannot be "harvested" for future use based on the original permit having expired.</p>	<p>Refer to response to A.44-5.</p>
14065-13	<p>The EIS and HCP do not adequately address certain impacts and/ exaggerate other impacts that would occur due to "non-renewal," as follows:  A. The applicant states that if the HCP is not renewed then the county will quit funding for the desert tortoise and other conservation programs. The statement assumes that the public doesn't support these programs unless the large projects and developers have the benefit of development of land without having to comply with NEPA and the ESA for each independent project. This is simply not true, there are modified section 6 grants under the ESA that provide up to 75% of funding towards conservation programs, with the County or State providing only 25% of funding. The programs that have been in place including monitoring, conservation, fencing, relocating, trails committees etc. can continue and receive funding, and would likely be supported by the public, regardless of whether or not big projects were issued take permits in a pre-approved large scale avoidance of NEPA and ESA. This kind of statement and attitude expresses an intent, not in alignment with the goals of conservation or the purposes of HCP's, the goal of the HCP renewal it seems is purely to avoid paperwork, public comment, and additional time in turning our natural habitat into money for a very few companies and developers who actually have the finances and bonding to even bid on large projects.</p>	<p>The previous HCP has generally provided a framework for conservation programs and land acquisition within the Reserve. The USFWS Section 6 funding has been made available through the HCP Land Acquisition program. Without implementation of an ongoing HCP, funding may not be available through that program. The HCP and Reserve managed under the HCP provide some assurances that there is a commitment for long-term biological and conservation goals to be met and maintained.  Also, the HCP provides an analysis of a permit issued under no changes and under changed circumstances. The No Action Alternative describes what would occur in the event that no HCP is maintained, or Reserve managed under the HCP.  Refer also to response to A.51-91.</p>
A.25-5	<p>The original HCP conservation measures should be carried forward with no inclusion of a Northern Corridor which does not support the goals of the original HCP.</p>	<p>Refer to responses to A.51-91 and A.51-92.</p>

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A.25-12	Agencies should not approve a revised HCP or ITP until the extent of the July 2020 fires has been determined. Approval of the revised HCP would include approval of a NC route through Red Cliffs. Until we know the extent of the fire damage no fragmentation of Red Cliffs should be allowed.	Refer to response to H.65-360.
A.25-14	The county should not be allowed to get more acres of occupied and potential MDT habitat under a new ITP. It is not clear in the draft HCP how much of the previously authorized take has been used. It is very difficult to determine in the draft HCP how many occupied and potential habitat acres have been lost since 1995, which seems critical to doing a real, fair environmental evaluation. Carrying forward “underutilized” take when we don’t know how well the proposed conservation program in the 2020 draft HCP will offset any take impacts is not reasonable and should not be allowed.	As written, the HCP is requesting a permit that is unchanged in conservation program except under a changed circumstance. The take being requested represents generally the same level of take asked for in the 1995 HCP (adjusted for updated survey information) and provided in the 1996 ITP. In addition, the County did not use the full level of take provided under the 1996 ITP during its 20-year term. Refer also to response to A.44-5.

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A.25-15	<p>In 2007 USFWS rejected the idea of a highway through Red Cliffs, arguing that it would jeopardize the MDT population there.</p> <p>“As a result of these existing pressures and the already small size of the reserve, current proposals in the Vision Dixie process to construct a “Northern Corridor” transportation route through the RCDR would severely threaten the survival and recovery of the desert tortoise within this recovery unit. Any transportation corridor would further increase the risk to the desert tortoise population and accelerate its decline by increasing fire frequency, noise disturbance, increased human access, and direct mortality along the corridor.</p> <p>We appreciate Washington County's need to plan for and steer the direction of urban growth. However, scenarios routing transportation corridors through the RCDR were considered and eliminated during the original development of Washington County's Habitat Conservation Plan due to their incompatibility with maintaining the tortoise population within the reserve. Construction of a new road or highway through the RCDR conflicts with the desert tortoise recovery plan and is inconsistent with the terms of the county's Habitat Conservation Plan and incidental take permit. Therefore, it will be important to develop alternatives that avoid the need for a northern corridor through the reserve.”<sup>11</sup></p> <p>This same position was quoted in a 2007 study by the Utah Department of Transportation (UDOT)<sup>12</sup> in which they presented ideas for a northern corridor and dealt with the county’s then-preferred route (Red Hills Parkway to I-15 at MP 13) in a chapter titled: “Alternatives Considered but Eliminated from Further Consideration.”</p> <p>According to a letter from USFWS, “such a road would compromise the commitments on which the Washington County Habitat Conservation Plan was based, is likely to compromise the biological integrity of the Upper Virgin Recovery Unit (already the smallest recovery unit) and may result in an adverse modification of designated critical habitat.”</p> <p>It is not justified to approve additional take at this point with no firm understanding of the fires’ impacts or how Zone 6 would help. It appears since 2016 that political pressure is affecting USFWS’s 2007 position.</p>	Refer to response to 13435-3.

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A.25-27	<p>The way we read the Revised HCP under consideration, the county is relying on its management prior to the July 2020 fires that may have decimated a large number of MDTs in Red Cliffs to support their “commitment” to the adaptive management and monitoring of Red Cliffs:</p> <p>The County has exceeded its commitments under the 1995 HCP to support monitoring activities within the Reserve. Baseline monitoring completed during the original ITP Term indicates that, excepting the effects of stochastic events and other Changed Circumstances, the population of MDT within the Reserve appears to be relatively stable and robust. Therefore, monitoring indicates that the conservation program of the Washington County HCP is effective, and ongoing funding by the County is no longer necessary to assess the basic efficacy of the conservation program.</p> <p>The July 2020 fires have not been factored into the MDT population at this point. For the county to assert that their conservation program is effective when three juveniles were able to enter Red Cliffs during a time of extreme drought and high fire danger clearly shows that the county’s conservation program needs additional funding and work. Monitoring is the heart of this program and must be funded adequately not just by BLM and UDWR.</p>	Refer to responses to A.51-91 and H.65-360.
A.25-29	<p>From the Draft Amended HCP:</p> <p>The County will fund the acquisition of approximately 450 acres of SITLA-owned lands within proposed Reserve Zone 6 prior to the start of construction of the Northern Corridor.</p> <p>Private in holdings were supposed to have been purchased/exchanged out of Red Cliffs over the past twenty-five years. If the county is now able to purchase 450 acres of SITLA-owned lands in the proposed Zone 6 why were they not able to purchase SITLA lands in the existing Red Cliffs before now as was an obligation either by them or federal entities?</p>	Refer to responses to A.51-91 and A.51-243.
A.25-30	<p>From the Draft Amended HCP:</p> <p>The County will install fencing along the eastern parts of the Reserve Zone 6 boundary and along the Navajo Road corridor to prevent motorized access outside the road right-of-way; and other fencing to enhance protections for listed plant species within Reserve Zone 6.</p> <p>The county agrees to fence along the eastern parts of Zone 6 and along Navajo Road, but the HCP provides no mention of fencing along the future Western Corridor that would run along the western boundary of Zone 6.</p>	Refer to response to A.51-91.

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A.25-31	<p>From the Draft Amended HCP: The County and the HCP Partners will provide technical assistance and funding to the Utah Department of Transportation to support the design, construction, maintenance, and/or monitoring of three to five tortoise-crossing culverts under Cottonwood Road in Reserve Zone 3. Cottonwood Road (Turkey Farm Road) was the site of the major 12,000-acre fire in July 2020. Although culverts could address the fragmentation caused by the road, seasonal closure of this road would do more for the MDT than a few culverts. Three to five culverts given the length of the road would do little to help the MDT population.</p>	Refer to response to A.51-91.
A.25-32	<p>From the Draft Amended HCP: Within 90 days, the County and the HCP Partners (with the input of the HCAC and TC) will prepare an initial restoration plan for the affected Reserve lands. The County will dedicate funds budgeted for implementing conservation actions associated with Reserve Habitat and Fire Management to actions prescribed in the initial restoration plan for at least 3 years following this Changed Circumstance, after which this funding may be applied in accordance with other priorities consistent with this category of spending. In the event of multiple fires over several years, this commitment ends after the budgeted monies for this line item have been spent. Rutherford/Van Dam public comments on Northern Corridor DEIS Sept 2020 Page 33 of 118 This seems to give the county and HCP Partners little reason to help protect the area from fires. If they don't work more diligently and spend money to deal with fuel load in Red Cliffs and multiple fires result over several years, their commitment ends after budgeted monies have been spent. If they "under budget" they are off scot-free?</p>	Refer to response to A.51-91.

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A.25-33	<p>From the Draft Amended HCP: The County and the HCP Partners, through the HCAC, may consider amendments or modifications to this Amended HCP that may be appropriate to accommodate any mitigation lands or funds provided by the private landowner through such independent action inside the Reserve. This may include amendments to the Reserve boundary to include the third-party mitigation lands or modifications to the funding program to coordinate the use of third-party mitigation funds for Reserve management and monitoring. The HCAC may meet and confer with the USFWS to discuss the potential disposition of any forms of mitigations (e.g., funds or lands), as they relate to this Amended HCP and its conservation program’s goals and objectives, subject to approval by the County and the USFWS.</p> <p>The above should be revised to read: The County and the HCP Partners, through the HCAC, may consider amendments or modifications to this Amended HCP that may be appropriate to accommodate any mitigation lands or funds provided by the private landowner through such independent action inside the Reserve. This may include amendments to the Reserve boundary to include the third-party mitigation lands or modifications to the funding program to coordinate the use of third-party mitigation funds for Reserve management and monitoring. The HCAC WILL meet and confer with the USFWS to discuss the potential disposition of any forms of mitigations (e.g., funds or lands), as they relate to this Amended HCP and its conservation program’s goals and objectives, subject to approval by the County and the USFWS. Any changes proposed must have USFWS approval to ensure they’re done in the best interest of the MDT.</p>	Refer to response to A.51-91.
A.25-64	A renewed HCP/ITP conditioned on approval of an NC ROW through Red Cliffs should not be approved – the HCP/ITP should be standalone	Refer to responses to A.51-92 and A.51-93.

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A.25-36	<p>It's clear from our attendance at Habitat Conservation Advisory Committee meetings over the past ten years that off-leash dogs are a problem. It's been reported over and over during presentations regarding the effects of activities in the NCA/Reserve. Hence, there is no reason that hunters should be allowed to use off-leash dogs. Although the hunting season occurs during a cooler time than during the hot summers here, the MDTs are preparing for their relatively-inactive season and should not have to deal with dogs running around uncontrolled. The DEIS says that "owners must keep dogs under their control at all times." How will that be ensured? What does "under their control" mean? If dogs are running after prey, is that under control? There are plenty of places to hunt in Washington County.</p> <p>Now that the Habitat Conservation Plan is being revised, revise it so that dogs with hunters must be on leash as with all other users of Red Cliffs. If this negates the purpose of having the dog along, then leave it at home and hunt without it. If that doesn't work, go somewhere else to hunt. Red Cliffs was established to allow recreation but not at the expense of T&amp;E species.</p>	<p>Management of unleashed dogs within the Reserve has not been proposed in the Amended HCP and is outside the scope of the BLM's consideration of the ROW application for the Northern Corridor. Any major changes to the design or exceedance of any existing authorizations would require additional NEPA analysis through the BLM and consultation with the USFWS prior to authorization.</p> <p>Refer also to responses to A.51-91 and A.51.153.</p>
A.51-6	<p>The Council asserts that what Washington County is calling "necessary development" should be matched by "necessary conservation" of the Reserve. Since 1996, the County has developed tortoise habitats on the promise of conservation management within the Reserve, which has been compromised by stochastic events like fire and by uncontrollable impacts like raven predation, weed proliferation, crushing tortoises along roads within the Reserve, and tortoise poaching that persist in spite of management under the 1995 HCP. We do not accept the Northern Corridor as a valid Changed Circumstance, which we construe to be factors or events that are outside the control of the Applicants. Recent fires are a good example of a Changed Circumstance, not a new freeway that can be avoided.</p>	<p>Refer to response to A.51-92.</p>
A.51-7	<p>Since the 46,098 acres of critical habitat within the boundaries of the Red Cliffs NCA are deemed to be too small to promote population viability (page 3-48 of the DEIS), we assert that the addition of 6,760 acres of ostensibly occupied tortoise habitat within Zone 6, which is neither critical habitat nor contiguous to the Reserve or NCA, cannot be considered a realistic mitigation to offset the avoidable impact of bisecting the existing Reserve with the Northern Corridor. Since the BLM, USFWS, and HCP Partners are obligated to perform analyses and base prudent management decisions on the results, only increased conservation management within the Red Cliffs Desert Reserve without the new freeway is warranted. By disabling the UVRU as a functional recovery unit, the Northern Corridor will preclude recovery across the range.</p>	<p>The use of minimization and mitigation measures and an informed design process may ensure that the Reserve will retain sufficient resources and connectivity for wildlife and plants if the Northern Corridor is constructed through the Reserve. For example, data on burrow locations, tortoise sightings, scat, and habitat conditions are being used to identify places along the corridor where bridges and underpasses would provide the most benefit to the Mojave desert tortoise.</p>

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		<p>Incorporating these measures minimizes impacts to habitat, demographic, and genetic connectivity within the Reserve and minimizing wildlife injuries and fatalities from vehicular collisions. Additionally, Zone 6 of the Reserve would be established to offset loss of habitat within Zone 3 of the Reserve. If protected, Zone 6 would support connectivity within a Mojave desert tortoise analytical unit in the UVRU and may support connectivity with adjacent analytical units and the Northeastern Mojave recovery unit. If protected, Zone 6 would support connectivity within a Mojave desert tortoise analytical unit in the UVRU and may support connectivity with adjacent analytical units and the Northeastern Mojave recovery unit. The USFWS will evaluate the effects of the Northern Corridor in a Section 7 consultation with the BLM, which will likely include an evaluation of effects to the Reserve. Similarly, the USFWS will evaluate the effects of the HCP and continued use of the Reserve as a conservation strategy in the HCP and ITP Findings document and intra-USFWS ESA Section 7 consultation. Refer also to responses to A.51-92 and A.51-101.</p>

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A.51-12	<p>The 2020 draft Implementation Agreement for the Amended HCP says, “The regional, cooperative conservation goals were incorporated into the 1995 HCP and it was designed to promote recovery of the MDT in the Upper Virgin River Recovery Unit and meet substantially the applicable recommendations of the Desert Tortoise (Mojave Population) Recovery Plan published by the Service in 1994.” Because these conservation goals were not met under the 1995 HCP, we request the 2020 HCP conservation program, which is mostly a continuation of the 1995 HCP, be substantially revised to implement a conservation program for the tortoise that uses the best available science throughout the requested 25-year Permit Term. The conservation program should have goals of substantially increasing tortoise numbers and densities above the current level for the Reserve and other areas in the UVRU; increasing the quantity, quality, and connectivity of tortoise habitat across the Reserve, tortoise habitat outside the Reserve, tortoise habitat outside the permit area, and habitat that connects to the to the Beaver Dam Slope Recovery Unit; and provide assurances of this management in perpetuity.</p>	Refer to response to A.51-92.
A.51-13	<p>In the 2020 HCP, the habitat that the Applicant has mapped as potential tortoise habitat is much larger than the areas mapped in the 1995 HCP and authorized by the 1996 ITP. The Applicant is requesting additional take of 66,301 acres of occupied and potential tortoise habitat as a surrogate for take of tortoises. In the 1996 ITP, the Applicant was authorized to conduct Covered Activities on 24,096 acres. The request for an amended and renewed HCP in 2020 triggers the requirements of the USFWS’ Five Point Policy, No Surprises Rule, and the HCP Handbook in addition to the requirements of the Endangered Species Act (ESA) for issuance of an incidental take permit. For issuance of a new or renewed incidental take permit, the ESA requires, among other things, the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking; the applicant will ensure that adequate funding for the plan will be provided; and the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild. As given in many of our comments, the Council does not believe that the 2020 HCP satisfies the above requirements.</p>	Refer to response to A.51-92.

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A.51-15	Given the budget presented in Section 8.1.1, Table 20 of the Amended HCP, the County is committing to pay \$27,680,957 over the next 25 years to implement the plan. In response to UDOT’s proposed freeway (or variation thereof), the County will pay \$16,171,151 (60% of the total cost) to accommodate the freeway compared to \$11,171,592 (40% of the total cost) to implement the plan without the freeway. And, this is only a fraction of the freeway-related costs, as it does not consider BLM and state agency expenditures that would not occur but for the freeway. In light of these observations, the Amended HCP seems more like a 16.2 million dollar mitigation package to accommodate UDOT’s project than a proactive plan intended to recover tortoises.	Refer to response to A.51-92.
A.51-16	Finally, we are dismayed to read the proponent-biased rhetoric given at the top of page 127 of the Amended HCP that “a deal is a deal,” which clearly favors the HCP Partner beneficiaries at the expense of tortoise conservation and recovery in the Red Cliffs Desert Reserve, which does not seem to any longer be part of the “deal.” That such a statement appears in this Amended HCP is evidence that the authors have not fully considered the significant ramifications of violating agreements pertaining to the 1995 HCP and its 1996 ITP by facilitating freeway development as part of the 2020 revised HCP.	Refer to response to A.51-92.
A.51-17	Herein, we ask that the Desert Tortoise Council continue to be identified as an Affected Interest for this and all other BLM projects that may affect species of desert tortoises, and that any subsequent environmental documentation for this particular project is provided to us at the contact information listed above.	Thank you for your interest. This request by the Desert Tortoise Council has been processed.
A.51-18	Page 2 - 2. Recitals Text: “C. The Service issues incidental take permits under Section 10(a)(1)(B) of the ESA authorizing take of endangered or threatened wildlife that is incidental to otherwise lawful and non-federal activities (i.e., an incidental take Original ITP or “ITP”), after opportunity for public comment, if it finds that certain statutory criteria are met by the applicant. To obtain an ITP, an applicant submits to the Service an application that includes, among other things, a Habitat Conservation Plan (“HCP”).” Comment: We suggest adding the following italicized language to clarify the requirements. “To obtain an ITP, according to the regulatory requirements (50 CFR 17.22(b)(1), an applicant submits to the Service...”	Refer to response to A.51-91.

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A.51-19	<p>Page 5 - 6. Assurances and Commitments to Perform and Comply with the Amended HCP</p> <p>Text: B. Cooperative Effort: “In order that the requirements set forth in this IA are fulfilled, each Party hereby acknowledges and accepts its role and responsibilities described in the Amended HCP and this IA, and will perform the actions described in, and otherwise comply with, the Amended HCP.”</p> <p>Comment: We are unclear how the Terms and Conditions of the ITP that would be issued to Washington County as the Permit Holder, would be performed or otherwise complied with by other entities through the certificate of inclusion process. Would implementation of all ITP Terms and Conditions be the responsibility of the permit holder? If not, under what legal mechanism would these ITP Terms and Conditions be distributed among certificate holders with obligations for implementing the HCP and enforced?</p>	<p>Section 7.5 of the Amended HCP addresses Participation Agreements and Certificates of Inclusion.</p>
A.51-20	<p>Page 6 - 7. Severability Remedies, Enforcement, and Effects of Default</p> <p>Text: B. Effect of a Certificate Holder Default: “Additionally, the Service agrees that a breach by a Certificate Holder of its obligations will not be considered a breach by any other Certificate Holder. In the event a Certificate Holder has materially breached its obligations and, after reasonable notice and opportunity to cure, such Certificate Holder fails to cure, remedy, rectify, or adequately mitigate the effects of such breach, then the County or the Service may terminate the Certificate Holder’s assurances under the New ITP.”</p> <p>Comment: This section of the IA needs to be removed. This HCP is a cooperative effort. All parts must function correctly to obtain the desired benefit. As written, the major certificate holder can default, and the other holders would not be affected; they could continue with development. While this may seem sensible, but from a biological application it does not. By including this wording, there is no incentive for a certificate holder to fully comply or comply in a timely manner with the HCP and Terms and Conditions of the ITP. If this section is removed, there is much incentive to fully comply and in a timely manner. When this section is removed, if one holder defaults, it affects all certificate holders. This provides incentive to all certificate holders to comply with their obligations. We strongly urge that this section of the IA be removed to provide incentive to the certificate holders and parties with interlocal agreements to fully comply with the HCP and Terms and Conditions and comply in a timely manner.</p>	<p>Refer to response to A.44-4.</p>

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A.51-21	<p>Page 6 - C. Effect of Federal Default Text: “Failure to comply with or perform the applicable commitment and requirements of this IA or the Amended HCP on the part of a Federal Party shall not result in the suspension or revocation of the New ITP as to any other Parties or any Certificate Holder that is in compliance with the requirements of this IA. Likewise, such a failure will not negatively affect the renewal, amendment, or any other type of extension sought by the applicant.” Comment: While we agree in theory that a non-federal entity should not be penalized for the failure of a federal entity to perform the applicable commitment and requirements of this IA or the Amended HCP, this section should be removed to provide incentive for the federal entity to comply. This is the only leverage for the federal entity to comply with the ITP/HCP.</p>	Refer to response to A.44-4.
A.51-22	<p>Page 6 - D. Loss of Original ITP Benefits Text: “The County shall have the right to revoke, terminate, or suspend a Municipal Partner’s or Certificate Holder’s right to enjoy or have the benefit, rights and privileges under the Original ITP if the Municipal Partner or Certificate Holder does not comply with the terms and conditions of its Interlocal Agreement or Certificate of Inclusion, as applicable. The County shall promptly notify the Service in writing of any action which would provide the basis for such revocation, termination, or suspension.” Comment: We do not understand why language is included in this new IA when the Original ITP is being superseded by an amended ITP to be issued presumably in future. Please see language n Section 8. Miscellaneous Provisions, A. Nullification of Agreement – “In the event that the New ITP is...” Page 6 - D. The term “Municipal Partner” is used in this section but it is not defined in Section 4. Terms Used. Please define this term.</p>	Refer to response to A.44-4.
A.51-23	<p>Page 7 - 8. Miscellaneous Provisions Comment: A. Nullification of Agreement – The term “New ITP” is used in this section, but it is not defined in section 4. Terms Used. Please define this term. Page 7 - C. Notices The draft IA says, “Utah School and Institutional Lands Trust Administration.” Please correct this to read “Utah School and Institutional Trust Lands Administration.”</p>	Refer to response to A.44-4.

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A.51-24	<p>Page 8, E. Availability of Funds:                      Comment: This section allows the federal and state partners to avoid implementation of their responsibilities identified in the HCP and IA by invoking the Anti-deficiency Act for federal partners and Utah Code § 63G-6a-1204 for State partners. “Federal and state agency support of the conservation measures in the HCP is contingent on having sufficient funding over the term of the HCP.”</p> <p>Congress has a history of not fully funding Department of the Interior agencies (e.g., BLM, USFWS) for a few decades, and some DOI agencies have exercised “latitude” in deciding which agency projects to fully fund, partially fund, or not fund when passing out funds from congressional appropriations. Consequently, this “escape clause” in the IA is likely to be used frequently by BLM and USFWS. With respect to the HCP, this inadequate funding means the actions that the HCP commits BLM and the USFWS to implement would have a low probability of being implemented because of funding limitations. We argue this situation is likely to happen with State agencies in Utah during the 25-year permit term. Because the HCP relies heavily on BLM and the State of Utah to fund/implement most of the land acquisition in the Reserve and management of these lands for the tortoise (please see Table 1 of the 2020 HCP), there is uncertainty that the HCP would minimize and mitigate to the maximum extent practicable without sufficient funding to ensure that Reserve lands are acquired and managed as recommended in the 1994 Recovery Plan and supported in the 2011 Revised Recovery Plan. This uncertainty would likely continue during the requested 25-year permit term. Consequently, we believe the HCP should provide funding assurances that when BLM and State agencies are unable to fulfill their obligations under the HCP because of funding limitations, funding from the Applicants should make up for this shortfall.</p>	<p>Refer to responses to A.44-4 and A.51-243.</p>

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A.51-27	<p>3 Comment: Whereas the emphasis of the three actions (UDOT proposal, HCP/ITP, and RMP amendments) is ostensibly forward-looking for future development and conservation, the analyses fail to acknowledge that management of the Red Cliffs Desert Reserve, intact, has resulted from 24 years (1996 through 2020) of ITP function, which is now being undermined and negated by developing the Northern Corridor in the very area the 1995 HCP was designed to protect. There is no way to reverse the development that has been authorized throughout Washington County since 1996, so how can conservation of the Reserve now be compromised by allowing development of the Northern Corridor? The 22,822 acres of tortoise habitats developed since 1996 have been offset by the conservation of the Red Cliffs Desert Reserve, and more than 500 tortoises (excluding those that were tested positive for Upper Respiratory Tract Disease, which were not translocated) have been displaced in exchange for protecting tortoises within the Reserve. Therefore, any development of a freeway through the Reserve violates this existing agreement, and cannot be mitigated by creating a noncontiguous, satellite reserve in Zone 6.</p>	<p>Refer to responses to H.65-366 and A.51-92.</p>
A.51-29	<p>4 Comment: Development under the 1995 HCP and 1996 ITP is permanent. The mitigation for the development must also be permanent unless there is a compelling biological reason to alter it. If not, then any time a permit expires the permit conditions and mitigation can be altered. The mitigation should include adequate funding to manage the mitigation lands in perpetuity. As we have seen from 1996 to 2020, this has not occurred under the Washington County HCP/ITP. Human-caused fires and tortoises killed on roadways are just a few of the losses of tortoises and habitat because of inadequate management of the Reserve.</p>	<p>Refer to responses to A.51-91 and A.51-245.</p>
A.51-32	<p>6 Comment: Throughout the 2020 HCP, data are provided on numbers of tortoises, densities of tortoises, and areas of habitat. These data cross back and forth between data available in 1995 and 1996 from the HCP, NEPA document, biological opinion, ITP, and recent data presented in 2020. The 1995 and 1996 data are for total number of tortoises and English measurements are used. The more recent data are for adult tortoises only and metric measurements are used. Please present data in both English and metric measurements in the HCP to support comparison of the data, and state when the number of tortoises presented is for all size classes of tortoise or only adults. Without this information, it is impossible to compare changes between 1995 and 2020.</p>	<p>Refer to response to A.51-91.</p>

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A.51-35	<p>9 ES-2 ES.1</p> <p>Text: “As a result of the ITP and protective management of the Reserve’s land base by the respective land managing agencies, necessary development has been able to occur in tortoise habitat on non-Federal lands in the County” (emphasis added). Comment: The Council asserts that “necessary development” should be matched by “necessary conservation” of the Reserve. Since 1996, the County has developed tortoise habitats on the promise of conservation management within the Reserve, which has been compromised by stochastic events like fire and by uncontrollable impacts like raven predation, weed proliferation, and tortoise poaching that are uncurbed by USFWS, BLM, or Washington County management. Now, what should be controllable (i.e., denial of UDOT’s proposed freeway through the Reserve) is being promoted.</p>	<p>Refer to responses to A.51-91 and A.51-93.</p>
A.51-39	<p>13 2-13 2.4.2.2</p> <p>Text: “The Permit Area contains approximately 1,372,742 acres, or 88 percent, of Washington County; [this is] equivalent to the direct loss of up to 14,466 acres of occupied Mojave desert tortoise habitat and 51,835 acres of potential Mojave desert tortoise habitat within the Permit Area; These combined 66,301 acres represent the extent of Mojave desert tortoise habitat occurring within the Permit Area, outside of the Reserve boundary, on lands that are not under Federal or Tribal management at the time the Amended HCP was prepared; [and] Within the Reserve, the amount of Mojave desert tortoise habitat within the Reserve that may be permanently lost to Covered Activities will not exceed 200 acres over the duration of the ITP Term.” Comment: The Council is concerned that these are the authorized impacts based on the perceived promise of conservation in the Reserve. That the Northern Corridor is now being proposed inside the Reserve that was promised to be conserved in 1995 violates the premise of the 1996 ITP, which at the time of this writing is still in effect. Additional impacts would be guaranteed under 10a permit reissuance, but conservation is only being promised; that there is evidence that these promises can be subsequently compromised, undermines the faith that these agreements will be binding and irreversible during or upon completion of the 25-year term of the reissued ITP.</p>	<p>Refer to responses to A.51-91 and A.51-93.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.51-57	<p>34 3-58 3.5.2.1</p> <p>Text: “HCP and ITP No Action Alternative: Under the No Action Alternative, the USFWS would not grant an ITP to Washington County, and the 1995 Washington County HCP would expire.”</p> <p>Comment: The DEIS has failed to substantiate or demonstrate a clear nexus between Washington County pursuing the HCP/ITP and UDOT’s proposal for the Northern Corridor. The ITP has functioned for 24 years, between 1996 and 2020, and only provisionally since 2016. Since the USFWS issues the 10a permit, not the BLM, how does the No Action Alternative (a BLM requirement) prohibit USFWS from issuing the ITP (a FESA requirement)? The trigger to revise the HCP and reissue the ITP should be the 2016 expiration date, not UDOT’s desire to develop the Northern Corridor. In the absence of UDOT’s proposal, the HCP would have been revised and the ITP reissued in response to the expiration date, and 66,301 acres of occupied and potential tortoise habitats could still be available for development (page 360, Volume 2). Linking the reissuance of the ITP to the Northern Corridor is contrived to create a fatally flawed relationship between two unrelated actions, where one action cannot occur but for the other, which is neither explained nor clearly supported in the DEIS’ analyses.</p>	Refer to response to A.51-92.
A.51-59	<p>36 3-60 3.5.2.1</p> <p>Comment: Furthermore, the list of Covered Activities described at the top of page 3-60 indicate they must be “...non-Federal and performed within the Analysis Area for the HCP.” Though not funded, since the Northern Corridor is an action that would be both authorized and carried out by the BLM, it is not therefore a federalized action that cannot be a Covered Activity, as described in this section of the DEIS? This assertion is further substantiated in the following statement “If the BLM issues UDOT a ROW grant for the _____ Alignment, it is anticipated that UDOT would design and construct a highway through the Reserve and Red Cliffs NCA.” Again, this is one of the three caveats (“fund, authorize, or carry out”) that federalizes a project that cannot be considered a Covered Activity by the HCP/ITP.</p>	Refer to response to A.51-92.

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A.51-62	<p>39 3-125 3.15</p> <p>Text: “The Washington County Amended HCP and the USFWS’s potential issuance of an ITP to Washington County would not impact recreation and visitor services outside of proposed Zone 6.”</p> <p>Comment: Although we understand the intent of this statement, we ask that USFWS take a second look at the statement considering the following concerns. Given the persisting declining trends for tortoises in the Reserve, are there current recreational activities in the Reserve that need to be curtailed or modified to further protect tortoises? For example, in March 2020 there was an EA designed to improve the Cottonwood Trailhead into the Reserve. Whereas we understand that this action is considered in its own NEPA process, we ask that USFWS take a hard look at allowable recreation development given the declining tortoise trends. Although we understand that the recent Turkey Farm Road fire was started by illegal use of fireworks in the Reserve, we wonder if the perpetrators were even aware that they were inside a Reserve and that fireworks are prohibited? Could increased or different patterns of law enforcement in the Reserve have prevented this and other human-caused fires? As such, we ask that USFWS and HCAC continue to look for new ways to educate the recreating public, which currently is missing from both the DEIS and Amended HCP.</p>	<p>Refer to responses to A.51-183 and A.51-191.</p>
H.65-135	<p>o Funding for fire management is limited to \$324,426 over the 25-year term. Given the size and frequency of wildfires in MDT habitat over the last 20 years, \$324,000 is not enough to deal with the larger and more frequent fires that have defined the recent past and are anticipated in the future. For comparison, preliminary estimates for suppression costs for the 2020 Turkey Farm Road Fire was \$1,724,000 and for the Cottonwood Trail Fire was \$442,000. Furthermore, the Draft HCP at 138 notes that "In the event of multiple fires over several years, this commitment ends after the budgeted monies for this line item have been spent."</p> <p>Further, MDT numbers in the Red Cliffs NCA are in decline so assigning a management level consistent with that in Zone 3 is clearly inadequate.</p>	<p>The Amended HCP budget has been revised to increase the commitment to funding adaptive management activities, such as Reserve habitat and fire management.</p>
H.65-632	<p>1- Update of Threat Assessments: key documents are nearly a quarter-century old. Addressed in Draft Amended HCP: No. Discussion of threats to MDT in the Plan Area is generalized and incredibly lacking. Section "3.2.5 Threats" is one scant paragraph long. The Amended HCP must fully discuss habitat fragmentation and proliferation of roads and highways because the plan accommodates the Northern Corridor Highway as a changed circumstance. It must also discuss the threats of OHV activity and recreation because the plan accommodates Zone 6 as a changed circumstance</p>	<p>Refer to response to A.51-153.</p>

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H.65-633	<p>2- Evaluate HCP/ITP in light of Updated Species Inventories: When updates are completed, provisions in the current HCP and ITP should then be carefully evaluated in light of the inventory data to determine whether those provisions remain relevant and appropriate. Addressed in Draft Amended HCP: Not adequately addressed. The Amended HCP fails to adequately discuss how updated species inventories show that the MDT is declining across the range, the UVRU, and the Reserve. Instead, the Amended HCP states that "UDWR considers the population of MDT within the Reserve to have stabilized: "there is no evidence of further declines in tortoise densities" (McLuckie et al. 2020) Draft HCP at 33. However, the McLuckie data captured in the DEIS tells a different story. Table 3-5.3 shows that MDT densities Reserve wide have declined from 19.6 to 17.2 MDT/kilometer<sup>2</sup> between 2017 and 2019. In Zone 3, where the NCH alternatives are being studied, MDT density declined from 17.2 to 12.3 MDT/km<sup>2</sup> between 2017 and 2019. The Amended HCP must recognize that updated species inventories show significant declines in MDT in the Reserve.</p>	Refer to response to A.51-91 and A.51-101.
H.65-634	<p>3- Define Biological Goals and Objectives: Addressed in Draft Amended HCP: Not adequately addressed. The Amended HCP fails to show how it carries forward biological goals and objectives consistent with those identified in the 1995 HCP. See comments at Section 4.1 Issues with Draft Amended HCP. The Amended HCP also fails to show how it is in accordance with the 2011 MDT Recovery Plan because it accommodates a changed circumstance that undermines the primary conservation measure of the 1995 HCP (the Reserve) with a 4-lane highway. This violates the following objectives and criteria from the Recovery 2011 MDT Recovery Plan:</p> <ul style="list-style-type: none"> <li>• Recovery Criterion 1. Rates of population change (A) for desert tortoises are increasing (i.e., <math>A &gt; 1</math>) over at least 25 years (a single tortoise generation), as measured</li> <li>• Recovery Criterion 2. Distribution of desert tortoises throughout each tortoise conservation area is increasing over at least 25 years (i.e., <math>\Delta [occupancy] &gt; 0</math>).</li> <li>• Objective 3. Ensure that habitat within each recovery unit is protected and managed to support long-term viability of desert tortoise populations.</li> <li>• Recovery Criterion 3. The quantity of desert tortoise habitat within each desert tortoise conservation area is maintained with no net loss until tortoise population viability is ensured. When parameters relating habitat quality to tortoise populations are defined and a mechanism to track these parameters established, the condition of degraded desert tortoise habitat should also be demonstrably improving.</li> </ul>	Refer to response to A.51-91.

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<b>Letter #- Comment # or Public Concern Statement #</b>	<b>Comment</b>	<b>Response</b>
H.65-635	4- High Standard of Protection: Biological objectives should include species- and reserve area specific population goals, protective management actions, and monitoring measures. Addressed in Draft Amended HCP: Not adequately addressed. Population goals are absent; protective management actions detailed in the Amended HCP fail to curb damaging recreational uses in Zone 6; and the Amended HCP claims that the County exceeded its commitments under the 1995 HCP to support monitoring activities within the Reserve. Furthermore, it misinterprets the monitoring results when it says that "baseline monitoring indicates. the population of MDT within the Reserve appears to be relatively stable and robust."	Refer to response to A.51-91.

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-636	<p>5-Define an Adaptive Management Plan 6</p> <ul style="list-style-type: none"> <li>• HCP compliance o Fire management, including emergency-response and prescribed fire</li> <li>• Fencing, including a plan for immediate response to fence blow-outs caused by heavy precipitation events. This is crucial for preventing tortoises from entering roadways and being struck by vehicles. Rapid inspection of tortoise fences should occur promptly after each major storm or monsoonal event. Over time, it should be clear where most of the common blow outs occur.</li> <li>• Signage that describes the criminal and civil consequences and fines for illegally taking a tortoise home or of allowing a dog to wander off-leash in the Reserve o Exotic species control, including investigation and trial-use of pre and post emergent herbicides like Esplanade (if it is determined not to be detrimental to the tortoise) for com battling the spread of invasive brome grasses and Sahara mustard</li> <li>• Revegetation (including use of more of the lower potassium native plant species so that tortoises can continue to eat them during extended drought periods)</li> <li>• Seed banking</li> <li>• Uses to be allowed in preserve o Public access points, if any</li> <li>• Reserve staff duties and licensing and education requirements</li> <li>• Education, including neighborhood and school programs that are accessible to community members of all ages, races, ethnicities and socio-economic backgrounds AND the supervision of new outreach staff AND mandatory creation of scientifically-sound, peer-reviewed Interpretation Plans to guide outreach efforts</li> <li>• Monitoring of the condition of covered-species populations o Monitoring of annual condition of the sub-areas of the reserve</li> </ul> <p>Addressed in Draft Amended HCP: Not adequately addressed. The document fails to discuss HCP compliance in regards to the NCH undermining the central mitigation feature of the 1995 HCP; immediate response plans for fencing blow-outs; effective signage to combat issues with poaching and dogs-off-leash; revegetation with attention to PEP; uses allowed in the Reserve (the Amended HCP notes that damaging uses will continue in Zone 6); detailed information on education and outreach and creation of interpretation plans; monitoring in sub-areas.</p>	Refer to response to A.51-91.

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H.65-637	<p>6- HCP Land Hard-line Component: Hard boundary lines for the WCHCP land conservation reserves - whereby the reserve boundary is delineated, and protection of all land within the reserve boundary is assured - are necessary to conserve covered species, focus and increase the efficiency of reserve and covered species management. Establish Definitive HCP Boundaries.</p> <p>Addressed in Draft Amended HCP: No.</p>	Refer to response to A.51-91.
H.65-639	<p>8- Existing Conditions in Reserve: Disclose the existing environmental conditions in the Reserve/NCA and outside the Reserve/NCA including, but not limited to the following:</p> <p>Addressed in Draft Amended HCP: Not adequately addressed. See below.</p>	Refer to response to A.51-91.
H.65-662	<p>32- Evidence of MDT Take Impact: evidence that any taking of MDT can occur without reducing the likelihood of the survival and recovery of the species.</p> <p>Addressed in Draft Amended HCP: No.</p>	Refer to response to A.51-94.
H.65-663	<p>33- USFWS must undertake a full and thorough accounting of the take authorized in the original WCHCP, including:</p> <p>Addressed in Draft Amended HCP: Not adequately addressed. See below.</p>	Refer to responses to A.51-91 regarding HCP development and content and A.51-28 regarding Mojave desert tortoises processed under the 1995 HCP.
H.65-664	<p>34-Take of tortoises from 1995-2019 that includes number of translocated tortoises, but also number of direct mortalities including construction related and roadkill mortalities, poaching, harassment, and illegal "adoption"; and number of ELISA positive tortoises prevented from being released back into the Reserve.</p> <p>Addressed in Draft Amended HCP: Not adequately addressed. The document says that 776 reported MDT individuals were processed through the Washington County HCP, but only 257 should be debited from the take. It does not disclose the number of construction-related mortalities or URTD or other disease mortalities. It also doesn't disclose the number of roadkill or poaching mortalities, although this information was shared in the Draft EIS.</p>	The UDWR keeps a road mortality database and keeps track of the live and dead Mojave desert tortoises during Reserve monitoring efforts or whenever they receive incidental reports. If Zone 6 is added to the Reserve, UDWR would also track observations and reports of Mojave desert tortoise mortality in Zone 6.

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H.65-665	<p>35- Take of critical habitat acres from 1995-2019 during the course of development in Washington County.                      Addressed in Draft Amended HCP:                      Not adequately addressed. The document discloses the take of occupied and potential habitat acres but does not discuss the take of critical habitat acres. This is important given that not all the designated critical habitat in the plan area falls within the Reserve boundary. It also fails to discuss the take of critical habitat inside the Reserve due to the NCH.</p>	<p>EIS Section 3.5.2 discusses potential impacts to Mojave desert tortoise critical habitat from the alternatives. Refer also to response to A.51-278 and H.65-347.</p>
H.65-666	<p>36- Take of low, medium and high-density tortoise density acres (as identified in the 1995 WCHCP) in Washington County.                      Addressed in Draft Amended HCP:                      Not adequately addressed. The document discloses take of 5,700 incidental take area acres; 16,037 acres of Occupied MDT Habitat; and 6,785 acres of Potential MDT Habitat. It does not disclose the acres of take in low, medium and high-density MDT areas. The HCP should provide clarification on "Occupied MDT habitat." Is the 14,466 acres of Occupied MDT Habitat the county is applying for considered low, medium or high-density habitat?</p>	<p>Figure 3 of the Amended HCP reproduces mapping from the 1995 HCP that the County believes is helpful for understanding the take request using the updated habitat information. The Amended HCP uses updated mapping and different metrics for the take surrogate. Refer also to response to A.51-91.</p>
H.65-667	<p>37- Under Section 10 of the ESA, an applicant for an ITP must establish that it has taken steps to minimize and mitigate take of covered species. Courts have struck down HCPs and ITPs for failing to ensure that their effects had been minimized and mitigated to the maximum extent practicable. Before the FWS can issue an ITP, the Service must first revise and amend the HCP to account for new information on the MDT populations and habitat, including:                      Addressed in Draft Amended HCP:                      Not adequately addressed. See below.</p>	<p>Refer to responses to A.51-91, A.51-94, and A.51-99.</p>
H.65-672	<p>43- Connectivity must be assured not only from north to south, but also east to west, so that important habitats remain connected and/or can be reconnected;                      Addressed in Draft Amended HCP:                      No. The Amended HCP accommodates the NCH which would fragment the Reserve from north to south. It fails to address the connectivity issues with Zone 6 being cut off from the rest of the Green Valley Analytic Unit by the future Western Corridor Highway.</p>	<p>Refer to responses to A.51-91 and A.51-228.</p>

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H.65-673	<p>44- Baseline inventories on plant and animal species distribution, abundance and trend; Addressed in Draft Amended HCP: Not adequately addressed. The document claims that the MDT population in the Reserve appears to be relatively stable and robust, but the data provided in the Draft EIS contradicts this statement. See more discussion elsewhere in comments.</p>	Refer to response to A.51-91.
H.65-679	<p>52- Compilation of all existing data on species. Addressed in Draft Amended HCP: Not adequately addressed. The Amended HCP failed to reference many important studies on the MDT, including studies that guide MDT habitat restoration. Failure to discuss necessary habitat restoration to combat the spread of invasive plants species and lessen the risk of catastrophic wildfire was a critical omission in the Amended HCP. The document should incorporate: Abella S.R. and K.H. Be1Ty. 2016. Enhancing and restoring habitat for the desert tortoise (<i>Gopherus agassizii</i>). Journal of Fish and Wildlife Management 7(1):xx-xx; e1944- 687X. doi: 10.3996/052015-JFWM-046.</p>	Refer to response to A.51-91.
H.65-682	<p>55- Disclose the new survey data used to calculate the extent and distribution of known and potential Mojave desert tortoise habitat for the purposes of WCHCP Renewal. Addressed in Draft Amended HCP: Not adequately addressed. See #38 above.</p>	Refer to response to A.51-91.
H.65-685	<p>58- "Take" Determination Process. Addressed in Draft Amended HCP: Not adequately addressed. In the Amended HCP, the applicant seeks more take than it received in the 1995 HCP, but still claims that this take is "unrealized" due to updated habitat mapping which shows that there is more MDT habitat in the plan area than realized in 1995. However, the habitat mapping results are suspect because the Nussear model was incorrectly interpreted. See #38. The Amended HCP relies on suspect habitat mapping to support the county's application for more take with fewer conservation measures.</p>	Refer to response to A.51-91 and A.51-175.
H.65-686	<p>59- Determining Take Levels for the amended WCHCP Addressed in Draft Amended HCP: Not adequately addressed. See below.</p>	Refer to response to A.51-91.

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H.65-687	<p>62- Analyze how much longer the current take authorization could have proceeded had the 20- year term limit not been reached. Once analyzed, the NEPA analysis may show that only a new term limit needs to be established, and not be a pre-decisional means to allow for the development of the NCH.</p> <p>Addressed in Draft Amended HCP: No. The document disclosed that between 22 and 46% of the take issued in the 1995 ITP had been used but failed to consider a scenario where the ITP was re-issued without the NCH in the "Alternatives to the Taking" section.</p>	Refer to response to A.51-91.
H.65-688	<p>63- Take must be determined, at least, in terms of acreage and the number of tortoises displaced, accidentally killed, etc. The analyses must document the following:</p> <p>Addressed in Draft Amended HCP: Not adequately Addressed. See below.</p>	Refer to responses to A.51-91 and A.51-175.
H.65-689	<p>65- The number of tortoises that have been displaced, the locations of the translocations, and monitoring results that can be used to judge the efficacy of the trans locations.</p> <p>Addressed in Draft Amended HCP: Not adequately addressed. The document discloses that translocated tortoises are not monitored after release in Zone 4. It fails to disclose the extent to which MDT have dispersed within Zone 4</p>	<p>The results of monitoring of translocated Mojave desert tortoises is described in Chapter 6.3.2.4 of the Amended HCP.</p> <p>Refer also to response to A.51-91.</p>
H.65-690	<p>66- Map out losses of habitat accredited to the HCP and based on these data show how adjacent areas of varying tortoise densities could be developed with HCP renewal.</p> <p>Addressed in Draft Amended HCP: Not adequately addressed. The document discloses that 5,700 acres of the 12,164 authorized for take on an incremental release schedule have been developed but fails to map this out. The Amended HCP fails to show any maps of Incidental Take Areas whatsoever, and also fails to discuss whether incremental take will still be a strategy in the 2020 HCP.</p>	Refer to response to A.51-91.

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Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-691	<p>67- Require Conservation Fulfillment prior to Take. Take of covered species and habitat should only proceed as concurrent conservation commitments are fulfilled. Addressed in Draft Amended HCP: Not adequately addressed. The document claims that "Accounting under the incremental release schedule demonstrates that these permittee commitments have been met in full, thereby releasing all of the authorized incidental take for use through the Covered Activities" (pg. 65). The County will no longer incrementally release occupied MDT habitat acres in the 2020 ITP because they claim to have fulfilled their conservation commitments by spending 70% more on implementing the HCP and HCP Activities than budgeted for in 1995. This is a problem because conservation activities, including Reserve Land Acquisitions, have failed to cur the 41 % decline of MDT in the Reserve between 1999 and 2020. The County should continue to release take incrementally until its conservation commitments have been met and the remaining 40% of the private inholdings in the Reserve are brought into federal ownership.</p>	Refer to responses to A.51-91, A.51-94, and A.51-99.
H.65-692	<p>68- Specify Harmful Impacts of "Take." The WCHCP must specify all harmful impacts which will likely result from permitted take of covered species. Addressed in Draft Amended HCP: Not adequately addressed. The document fails to discuss harmful impacts of take specific to the Permit Area and Reserve because it only discusses generalized effects of covered activities.</p>	The impacts of Covered Activities are disclosed in EIS Chapter 3. Refer also to responses to A.51-91 and A.51-99.
H.65-693	<p>69- Compliance Accountability: HCP compliance must be monitored and the take permit revoked in the event of non-compliance. Addressed in Draft Amended HCP: Not adequately addressed. The document discloses that USFWS will provide "oversight of compliance with the terms and conditions of the ITP" (pg. iv) but fails to discuss how USFWS is not ensuring compliance with the 1995 HCP because they fail to analyze an HCP renewal alternative that reauthorizes the ITP without provisions for the NCH. We assume that USFWS would not normally allow ITP Renewal to be linked to construction of a highway through the Reserve<sup>96</sup> were it not for enormous political pressure.</p>	Refer to responses to H.65-406 and A.51-91.

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<b>Letter #- Comment # or Public Concern Statement #</b>	<b>Comment</b>	<b>Response</b>
H.65-694	<p>70- Issues with Translocation of tortoises from NCH ROW to Zone 6: Efficacy of Mass Translocations: assess the efficacy, both successes and failures, of recent mass translocations of tortoises.</p> <p>Addressed in Draft Amended HCP: No. The document should have addressed this because continued translocations of MDT from occupied and potential habitats will be necessary during the 2020 HCP, and Zone 6 is being considered as a translocation site. Additionally, the Amended HCP fails to discuss whether MDT impacted by the NCH will be translocated, and if so, where?</p>	Translocations will occur in accordance with past practice until adoption of a new Translocation Plan, through the adaptive management process.
H.65-715	<p>94- HCP Administration Reform: Implement changes in HCP administration requiring diverse and qualified advisors and staff and checks and balances.</p> <p>Addressed in Draft Amended HCP: No.</p>	Refer to response to A.51-91.
H.65-716	<p>95-There are 15 other federally listed species in the Plan Area. The document should disclose the new survey data used to review the health and stability of these populations as well.</p> <p>Addressed in Draft Amended HCP: Not adequately addressed. The Amended HCP lists these species but fails to provide data on their viability in the plan area.</p>	Refer to response to H.65-77.
H.65-717	<p>96- Alternatives not Linked to HCP Renewal: Analyze alternatives to ITP/HCP Renewal that do not conditionally link HCP Renewal to granting of the NCH ROW.</p> <p>Addressed in Draft Amended HCP: No. Given that the current HCP has failed to halt the continuing decline in tortoise numbers and usable habitat acres, the new proposed HCP must change that status quo and attempt to reverse those declines by considering an alternative for HCP renewal that is not linked to the NCH. The Amended HCP has failed to do this.</p>	Refer to response to A.51-92.

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H.65-718	<p>97- Clarification of ITP Application: The scope of this item is unclear in that it does not address which specific land use/development activities are to be considered. It may address the ROW only, or the proposed Zone 6, or any number of other future development projects. Is the applicant applying for a new ITP, or an amendment to the existing ITP?</p> <p>Addressed in Draft Amended HCP: Not adequately addressed. See below.</p> <p>98-Renewed or New Take Permit: USFWS must clarify whether they are renewing the existing take permit or issuing a new take permit.</p> <p>Addressed in Draft Amended HCP: Not adequately addressed. The document claims that the County is applying to reauthorize its remaining take, but new habitat modeling and the use of a habitat surrogate metric supports the County's application for more take than they received in the 1995 HCP. Addressing "take" of habitat as a surrogate for take of individuals of a species is problematic because the habitat mapping exercise was flawed. Additionally, the Amended HCP must clarify whether "take" of habitat includes development of the entire parcel or only the project footprint. It should be the entire parcel to account for take from harm and harassment as well as mortality, wounding and injury as defined in 50 CFR 17.3.</p> <p>99- Analyze at Least 3 Alternatives: To avoid demonstrating pre-decisional bias and arbitrary and capriciousness, at least three alternatives must be carried forward for detailed analysis, beyond the required proposed action and no-action alternatives. We ask FWS to consider the following WCHCP alternatives for analysis in the DEIS:</p> <ol style="list-style-type: none"> <li>1. proposed HCP renewal and updating without the "if/then" Northern Corridor/Washington Parkway construction option;</li> <li>2. proposed HCP renewal and updating without linking the establishment of Zone 6 as a condition for constructing the Northern Corridor/Washington Parkway; and</li> <li>3. proposed BLM NCA and SGFO Plan amendments that relate to the UDOT application, without authorizing construction of the Northern Corridor/Washington Parkway, and with analysis of one or more highway alternatives outside of the Reserve/NCA. Addressed in Draft Amended HCP:</li> </ol> <p>No. The Amended HCP fails to analyze an alternative that doesn't conditionally link granting of the NCH ROW to HCP and ITP Renewal and/or protection of Zone 6. The purpose and need of the HCP is arbitrarily narrow because it filtered out consideration of such an alternative and shows that the HCP is not focused on recovery and conservation of MDT, but on the Northern Corridor Highway.</p>	<p>Refer to responses to A.44-5, A.51-92, and H.65-406.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-719	<p>100- The USFWS must strengthen the relationship between Utility Development Protocols and Mitigation, including: Establishing the Reserve as an avoidance area for new utilities;</p> <ul style="list-style-type: none"> <li>• Visual resources in the Reserve must be maintained by requiring any new utility projects be underground when deemed appropriate and non-damaging to the tortoise;</li> <li>• UDPs must have strong administrative guidelines to ensure approvals go through the proper process;</li> <li>• Maintain or further reduce the maximum width limits for temporary disturbances such as roads, turn arounds, or parking areas;</li> <li>• Increase the minimum set back distance for any blasting operations, from the nearest active or potential tortoise burrows and the blasting location. All burrows within a larger set back area should be scoped for tortoises before blasting, and the burrows should be checked immediately after blasting in case it caused any occupied burrows to collapse and entomb the tortoises. If so, those tortoises should be quickly rescued for subsequent relocation within or near their likely original home range;</li> <li>• All utility personnel should receive thorough, regular tortoise conservation education and follow best practices;</li> <li>• Measures should be put in place to supervise the travel of maintenance and utility vehicles on unfenced roads inside the Reserve during the active season; and</li> <li>• There should be specific and serious penalties for any UDP violations against those who approve or cause the violations.</li> </ul> <p>Addressed in Draft Amended HCP: Not adequately addressed. The Amended HCP fails to provide adequate protection for because it fails to update the UDP's to minimize adverse impacts to MDT from utility development in the Reserve. The Amended HCP includes no revisions of the UDP's and does not mention plans for future revisions that would enhance protections for MDT in the Reserve. In fact, "Live More. Drive Less. Traffic Congestion in Washington County" messaging from Washington County sent to e-news subscribers on 8-14-20 encourages readers to support the Red Cliffs NCA RMP Amendment Alternative C which would allow for above and below ground utilities in the Northern Corridor Highway ROW and would weaken protections for visual resources in the Reserve.</p>	Refer to response to A.51-91.

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H.65-720	<p>101- Require an Independent Review of HCP Documents. Addressed in Draft Amended HCP: No.</p>	<p>The Amended HCP is the applicant’s document. It is a key component of their application for an ITP for listed species that would result from non-Federal activities (Section 10(a)(1)(B)). The USFWS reviews the HCP and ensures that it meets all requirements and issuance criteria.</p> <p>If the applicant’s HCP meets the issuance criteria and is statutorily complete, the USFWS shall issue an ITP. The USFWS’s HCP Handbook explicitly states, “the Services cannot issue permits based on alternative versions of the HCP that the applicant did not propose” (USFWS and NMFS 2016 at 16-4). Accordingly, because the County (the applicant) did not propose an alternate version of the HCP, it would be inappropriate for the USFWS to unilaterally propose and analyze the impacts of an alternative version of the HCP/ITP.</p> <p>The USFWS’s Findings and Recommendations Memorandum documents the USFWS’s conclusions on permit issuance in response to the application and HCP, including the statutory and regulatory requirements, Section 10(a)(2)(B) issuance criteria, and responses to public comments received.</p> <p>Refer also to response to A.51-91.</p>

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H.65-721	<p>102- The WCHCP should address the status private inholdings in the Reserve, including:                      Are any of the current Reserve private in-holders threatening to develop their lands?</p> <ul style="list-style-type: none"> <li>• If so, whom and where?</li> <li>• If not, why is this concept relevant?</li> <li>• If private land in the Reserve is proposed for harmful development, how could FWS legally authorize that incidental take?</li> <li>• Would Zone 6 mitigation credits be available for this purpose?</li> <li>• Would NCH construction increase the incentives and potential for such incompatible Reserve development on private or SITLA lands?</li> </ul> <p>Addressed in Draft Amended HCP:                      No. The document fails to discuss private inholdings in the Reserve and how the BLM-preferred route for the NCH travels through these inholdings, thereby increasing access. The Amended HCP explicitly discusses "Private Lands in Reserve Become Developed" as a changed circumstance and addresses the issue in multiple places, including on pages vi, xvi, and 140. The Amended HCP also explicitly addresses the idea of SITLA developing lands in the Reserve. Since the Amended HCP accommodates Zone 6 as mitigation for damaging activities inside the Reserve, this creates a path for SITLA to achieve ESA compliance by offering mitigation in Zone 6. The Amended HCP must not facilitate future development inside the Reserve by setting up Zone 6 as a mitigation bank.</p>	<p>Activities that are not Covered Activities and that would result in take of listed species would require separate authorization from USFWS to comply with the ESA. Such activities are outside the scope of the Amended HCP. Refer also to response to A.51-91.</p>
H.65-722	<p>102- HCP Economic Value: determine the economic value of the HCP from December 1995 to present day.                      Addressed in Draft Amended HCP:                      No. The Amended HCP reveals that 5,700 acres inside incidental take areas have been developed over the course of the 1995 HCP. It also reveals that 16,037 acres of Occupied MDT Habitat and 6,785 acres of Potential MDT Habitat have been developed (which overlap the incremental take acres? The Amended HCP does not specify) but fails to estimate the economic benefit of the development of these 20,000+ acres. The HCP that has provided for so much growth in our County was made possible by protecting the Reserve. This plan, and this promise, must not be compromised by the NCH.</p>	<p>Refer to responses to A.51-91 and A.51-92.</p>
H.65-723	<p>I 04- Disclose how the NCH may be contrary to specific existing plan decisions.                      Addressed in Draft Amended HCP: No. The document fails to consider how the NCH is contrary to specific existing plan decisions, including the 1995 HCP which established the Reserve as the primary mitigation feature for the authorized take of 350,000 acres in the plan area.</p>	<p>Refer to response to A.51-92.</p>

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H.65-725	<p>103- Disclose a list of all the covered and non-covered activities that will or will not be permitted in the new WCHCP with justification for each that is grounded in and consistent with existing relevant statutes, regulations, and policies as well as BLM plan decisions.</p> <p>Addressed in Draft Amended HCP: Not adequately addressed. The document says that it "does not expand the list of Covered Activities beyond those addressed in the 1995 HCP," but discloses that existing Zone 6 recreation uses will continue as covered activities. These include competitive sporting events and motorized recreation. The document fails to justify how covering these activities (especially competitive events that attract thousands of participants) is consistent with the covered activities in the 1995 HCP, especially the recreation uses which covered "small-group forms of recreation" (pg. 13). The document also fails to incorporate 2016 HCP Handbook guidance under "Describing Covered Activities in the HCP" which states that "An HCP should thoroughly describe activities and associated components that are likely to have impacts but should not include overly detailed information about sub-activities that do not affect covered species" (5-5). The document fails to describe the competitive events or their likely adverse impacts on the MDT and its critical habitat.</p>	<p>The Amended HCP, like the 1995 version, does not prohibit otherwise lawful activities. Rather it identifies Covered Activities, some of which are also understood by the HCP Partners to be allowed uses of the Reserve. Activities that are not Covered Activities and that would result in take of listed species would require separate authorization from USFWS to comply with the ESA.</p>
H.65-726	<p>106- Disclose how the NCH undermines, distracts and moves staff time and funding away from the prioritized actions outlined in the Recovery Action Plan for Mojave desert tortoise in the Upper Virgin River Recovery Unit.</p> <p>Addressed in Draft Amended HCP: No. This is another major omission because if agency staff time is prioritized on Zone 6, conservation measures will not be implemented in the Reserve to the extent that they were between 1995 and 2019. This is especially concerning following the summer 2020 wildfires that burned 20% of the Reserve, causing the need for new surveys and habitat restoration. Conversely agency staff time cannot be prioritized in Zone 6, conservation actions will fail to be adequately implemented there.</p>	<p>Refer to response to A.51-91.</p>
H.65-727	<p>107 - Determine the Relationship between the NCH and HCP Purpose.</p> <p>Addressed in Draft Amended HCP: No. The document fails to address how the NCH violates the purpose of the Reserve which was established to offset the take of 350,000 acres in the plan area and cannot continue to do this if it is fragmented by the NCH.</p>	<p>Refer to response to A.51-92.</p>

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H.65-732	<p>112- Disclose information related to the mitigation ratios that will be used in the WCHCP and justification for why the ratio was selected that is grounded in the latest science and standard practices used across the tortoise's range.</p> <p>Addressed in Draft Amended HCP: Not adequately addressed. The document proposes to carry forward mitigation ratios ranging from 1: 1 to 6: 1, based on 1991 guidance from the Desert Tortoise Management Oversight Group, but fails to justify why those ratios were selected. It also fails to share criteria for why some projects would be mitigated at 1: 1 and others would be mitigated at 6: 1. Given MDT declines in the UVRRU and Reserve, the 6: 1 ratio should be used to protect additional habitat for the MDT.</p> <p>Additionally, the Amended HCP should consider establishing endowment and enhancement funds for the land acquired to provide for permanent conservation.</p>	Refer to response to A.51-91.
H.65-733	<p>113- Disclose a plan for acquiring the remaining non-federal parcels inside the Reserve during the duration of the proposed 25-year WCHCP.</p> <p>Addressed in Draft Amended HCP: Not adequately addressed. The document fails to consider how acquisition of non-federal parcels in Zone 6 will interact with, or prioritize, acquisition of remaining non-federal parcels in the Reserve. The Amended HCP must prioritize Reserve acquisitions.</p>	Refer to response to A.51-91 and A.51-243.

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H.65-735	<p>116- No Surprises Assurances and Changed Circumstances: List all potentialities being considered in the WCHCP under the umbrellas of "No Surprises Assurances" and "Changed Circumstances."</p> <ul style="list-style-type: none"> <li>• Disclose how the 1,000-acre threshold for triggering wildfire response was determined. Why is the threshold so high in a Reserve that is still recovering from the devastating effects of previous wildfires? Could the threshold be lower? What actions are prompted by this trigger?</li> <li>• Disclose how the 25% threshold for triggering response to Mojave desert tortoise disease was arrived at. Why is the threshold so high in a small and vulnerable recovery unit?</li> <li>• What plan is there for coping D4-Exceptional Drought Phase triggers? Aside from stopping translocation?</li> <li>• What plan is there for municipality non-participation?</li> <li>• What happens if an in-holder threatens to develop their property within the Reserve after the new HCP is adopted?</li> </ul> <p>Addressed in Draft Amended HCP:                      Not adequately addressed. We are pleased to see that mention of the 1,000-acre threshold for triggering wildfire response did not appear in the Amended HCP and suggest that language should be added clarifying that wildfires of any size in the Reserve will trigger a response. We are also pleased to see a response plan for D-4 Exceptional Drought but believe that it needs to include a detailed plan for potential road/trail closures and community outreach focused on preventing catastrophic wildfire during D-4 droughts.                      We note that the document fails to justify setting the 25% threshold for observed incidence of UR TD in a Reserve that is small in size; has shown a 41 % decline in MDT between 1999 and 2020; and has recently experienced wildfires that burned 20% of the land.</p>	Refer to response to A.51-91.

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H.65-736	<p>117- Provide Clarification and More Detail on Unclear Items, including:</p> <ul style="list-style-type: none"> <li>• How the Reserve Boundary and federal ownership will be assessed at the time the activity occurs, as noted in Appendix H.</li> <li>• The transfer of authorized take to HCP partners, as noted in Appendix H.</li> <li>• The surrogate metric and how it is calculated, as noted in Appendix H.</li> <li>• The habitat modification proxy, as noted in Appendix H.</li> <li>• Comparison of updated MDT habitat/density metrics as noted in Appendix H.</li> <li>• Retiring of previously authorized take from Zone 6 and White Reef as noted in Appendix H.</li> </ul> <p>Addressed in Draft Amended HCP: Not adequately addressed. The document fails to discuss the implications of transferring authorized take to HCP partners, and how this could mechanism could be used to accommodate projects that cause take inside the Reserve.</p>	Refer to response to A.51-91.
H.65-738	<p>119- Speculative future investigation and evaluations should not be included in the WCHCP. Language on future enhancement and restoration programs needs to be clear and specific, and include management, funding, responsible parties, timelines, and other issues.</p> <p>Addressed in Draft Amended HCP: Not adequately addressed. Under "No Surprises Assurances: Establish Reserve Zone 6" information on restoration programs, management of recreation, education and outreach and law enforcement is lacking. The Amended HCP fails to address in detail how damaged lands in Zone 6 will be rehabilitated and how illegal uses and damaging recreation types will be curtailed, especially on the 3,255 acres of SITLA land. See additional discussion elsewhere in the comments.</p>	Refer to response to A.51-91.
H.65-739	<p>120- MDT Take Minimization and Mitigation: clearly define and support with data how this condition is met.</p> <p>Addressed in Draft Amended HCP: Not adequately addressed. The draft HCP fails to show how the same conservation measures outlined in the 1995 HCP can mitigate or minimize the take of 66,301 occupied and potential MDT habitat acres in the Permit Area or reverse the declines of MDT inside the Reserve.</p> <p>Additionally, the Amended HCP fails to show how the NCH can be minimized or mitigated for damage caused by the NCH to the Reserve.</p>	Refer to responses to A.51-92 and A.51-93.

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H.65-660	<p>30- A plan for curtailing recreation-related littering in the Reserve. Litter levels are increasing as visitation increases. Addressed in Draft Amended HCP: No. The Amended HCP must include a plan for curtailing litter in the Reserve and Zone 6 that includes, at a minimum, law enforcement, outreach, and signage components. Outreach and education focused on the negative impacts of litter in subsidizing predator populations should be offered in schools and to local hiking clubs and others in the recreation community, and especially to the local church-organized youth groups that utilize the Reserve.</p>	Refer to response to A.51-91.
H.65-661	<p>31- A plan for providing outreach and education that will help curtail human-caused take of tortoises and subsidization of predator populations through litter and uncovered trash. Addressed in Draft Amended HCP: No. See above.</p>	Refer to response to A.51-91.
H.65-704	<p>83- At a minimum, the WCHCP must create a process for how future funding will be assured. Addressed in Draft Amended HCP: Not adequately addressed. The Amended HCP fails to consider the additional costs for BLM and UDWR to help manage Zone 6 in addition to the rest of the Reserve. The document does not show that BLM and UDWR funding for Zone 6 is assured.</p>	Refer to responses to A.51-91, A.51-98, and A.51-243.
H.65-706	<p>85- FWS must include analysis that evaluates the efficacy of the existing fee structure (impact fees) and whether elevated rates are warranted. Addressed in Draft Amended HCP: Not adequately addressed. The document shows that the County's 0.2% impact fee, in addition to funding from HCP partners, has been sufficient for funding the 1995 HCP. However, the Amended HCP fails to show that acquisition of 3,225 acres of SITLA lands in Zone 6 can be completed without adjusting the existing fee structure.</p>	Refer to responses to A.51-91, A.51-98, and A.51-243.
H.65-707	<p>86- Major funding for the WCHCP must not rely on future speculative sources, nor ultimately on the taxpayers, but be clearly identified as to the source of funding. Addressed in Draft Amended HCP: Not adequately addressed. The document shows that BLM will be responsible for the acquisition of nearly half of the lands in Zone 6. The availability of L WCF and ESA Sec. 6 funds to support BLM's land acquisitions is speculative.</p>	Refer to responses to A.51-91, A.51-98, and A.51-243.
H.65-708	<p>82- Share a plan for funding, in addition to the Reserve, the proposed Zone 6 mitigation. This plan must include how the following costs will be met in year 1 through year 25 of the WCHCP, including:</p> <ul style="list-style-type: none"> <li>• A proposed budget that details how the additional costs for Zone 6 will be funded</li> </ul>	The USFWS inquired with the County on this comment, and the County clarified that additional budgeting detail is

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	<ul style="list-style-type: none"> <li>• Law enforcement. We advocate for the presence of multiple law enforcement officers on ground 7 days/week due to the prevalence of dangerous recreation types in Zone 6 that include target shooting, dumping, bonfires, off-trail OHV use and others</li> <li>• Fencing of Zone 6 perimeter and all road ways that would continue being used inside Zone 6</li> <li>• Outreach, including community education and involvement, such as organized school or other public events. This may help give local residents "ownership" of Zone 6 in terms of understanding and respecting the need for limits on recreational uses.</li> <li>• Service clubs could also be encouraged to assist with clean up and habitat restoration projects.</li> <li>• Signage</li> <li>• Bi-annual monitoring of the tortoises by UDWR (that mirrors the survey efforts already used in the Reserve)</li> <li>• Extra staff on site for supervision of the huge influx of visitors associated with the 4 competitive, organized sporting events that occur in Zone 6 each year</li> <li>• Habitat restoration for areas disturbed by OHVs, target shooting, competitive events, trash dumping, fires, etc.</li> <li>• Proactive herbicide treatments to limit the colonization and spread of invasive species</li> <li>• Ongoing efforts to dismantle dump sites and remove trash</li> <li>• Raven control</li> <li>• Implementing redundant route closures with vertical mulching or other camouflaging techniques, and long-term monitoring</li> <li>• Acquisition of SITLA lands through purchase or exchange for subsequent BLM management.</li> </ul> <p>Not adequately addressed. The document discloses that the cost of implementing the HCP with the NCH and Zone 6 is \$16 million dollars more than the cost of implementing the HCP without these changed circumstances.</p> <p>The budget is concerning because it reveals that the County is willing to pay an extra \$16 million dollars to get the Northern Corridor Highway. The budget of the Amended HCP is flawed because it does not show that the County is 100% committed to managing the SITLA lands in Zone 6 until they are transferred to federal ownership. Given the slow pace of land acquisitions in the Reserve over the last 25 years, it cannot be expected that acquisitions of SITLA land will occur any more quickly. If the County does not commit to fully funding conservation actions on SITLA lands, MDT, sensitive plant species and recreation will not be protected in Zone 6 as the County</p>	<p>provided through the annual work plan process with the HCAC. Refer also to response to A.51-91.</p>

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	<p>promises. The reserve administration, law enforcement, land acquisition, and recreation management budget categories appear to have insufficient funding for management of 3,225 acres of SITLA lands. Specific to land acquisition, Reserve acquisitions should be prioritized over Zone 6 acquisitions.</p> <p>The monitoring and adaptive management planning category does not explain how funds will be split between monitoring in Zone 6 versus the rest of the Reserve. Adequate funds for monitoring both places are crucial given that tortoise survey results in Zone 6 are not validated, and that the Reserve has just experienced wildfires that burned 20% of the MDT habitat there.</p> <p>The Amended HCP fails to address or budget for the unique costs associated with Zone 6, including the following: Extra staff to supervise increased visitation during competitive sporting events; cleanup of dumpsites, campsites and target shooting ranges; route closures and rehabilitation; habitat restoration for lands previously mined and grazed.</p>	
H.65-709	<p>88- What large, future costs is the HCP budgeting for? I.e., a new Interpretation Center, Zone 6 management, etc.? Addressed in Draft Amended HCP: Not adequately addressed. The document shares that the HCP is budgeting for a new interpretation center but fails to show that its budgeting enough for wildfire response and adaptive management concerns including climate, change, drought and translocation.</p>	Refer to response to A.51-91.
H.65-710	<p>89- What were the yearly implementation costs for the WCHCP in a detailed, line by line item budget, for the year 2019? Addressed in Draft Amended HCP: No. The document should disclose HCP costs in 2019 to account for spending of HCP dollars, which can only be used for the purposes of implementing the HCP or "for expenditures that are otherwise consistent with the conservation or recovery of the MDT" (Draft HCP at 125). The coalition is concerned that funds have been improperly spent in 2019 (and also 2018 and 2017) on activities that support the application for the Northern Corridor Highway through the Reserve.</p>	<p>The annual work plans and budgets for HCP implementation are discussed in HCAC meetings, which are open to the public. Refer also to response to A.51-91.</p>
H.65-711	<p>90- What were the yearly implementation costs for the WCHCP from 1995 to 2018? Addressed in Draft Amended HCP: No.</p>	Refer to response to A.51-91.

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H.65-712	<p>91- What is budgeted for adaptive management and contingencies? What contingencies are listed? What adaptive management activities are being planned for?</p> <p>Addressed in Draft Amended HCP: Not adequately addressed. The County budgets \$811,064 for Monitoring and Adaptive Management Planning without the Northern Corridor Highway and budgets three times as much for the changed circumstance scenario incorporating the NCH and Zone 6. The Amended HCP fails to list the contingencies the County is planning for. Importantly, it fails to discuss the County stepping away from its original commitment to protect the Reserve as the 1995 HCP's central mitigation feature. The proposed budget illustrates that the County is backing away from its original commitment to the Reserve because it shows that the County is willing to spend twice or three times the amount of money for the NCH and Zone 6 changed circumstance, while letting the Reserve languish.</p>	<p>The County has expanded its commitment to supporting adaptive management actions in the Reserve by increasing the budget for such activities. The deliberations of the HCAC and, when requested, the TC provide the framework for the adaptive management process. Refer also to response to A.51-91.</p>
H.65-713	<p>92- What impact fees were collected from 1995 to 2018?</p> <p>Addressed in Draft Amended HCP: No.</p>	<p>Refer to response to A.51-91.</p>

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H.65-714	<p>93- What is the full list of funding sources, in addition to impact fees, for the WCHCP?</p> <ul style="list-style-type: none"> <li>• What are the costs of new building permits related to the WCHCP in Washington County?</li> <li>• What are future plans for adjusting impact fee (what we understand to be 0.2% of construction cost)?</li> <li>• What is the justification for eliminating \$250 flat fee on plat approval as listed in Appendix H? If this flat fee was retained, could the money be used for habitat restoration or other activities that will enhance the recreational, ecological and scenic qualities of the Reserve?</li> <li>• What are the funding assurances for the WCHCP if the NCH ROW is not granted? What is Washington County's plan for renewing the WCHCP without the NCH?</li> <li>• What incremental implementation strategies are being considered?</li> <li>• What audits have been done of past HCP-related revenues and expenses, by whom, when, and are those audit reports available to the public?</li> </ul> <p>Addressed in Draft Amended HCP:            Not adequately addressed. The document fails to disclose the funding BLM and UDWR will commit to the HCP with Zone 6 and does not discuss whether these partners are actually capable of funding Zone 6. It does not discuss retaining the plat approval fee (which generated 10% of the HCP revenue) to support habitat restoration in the face of increased risk for catastrophic wildfire or other conservation activities. It fails to discuss audits of past HCP-related revenues. The Amended HCP fails to consider incremental implementation strategies for the 2020 HCP because it claims that the County met all its conservation obligations in the 1995 HCP. The Amended HCP must consider incremental implementation that emphasizes conservation actions to rehabilitate the Reserve after severe wildfires in summer 2020 and to mitigate the loss of 16,037 acres of occupied MDT for which the County is applying to take.            It is concerning that the Draft EIS links the granting of the NCH ROW to ITP Renewal, meaning that if the County doesn't get the highway they will not renew the HCP and will stop supporting the Reserve with funding. The USFWS must consider a scenario in which the HCP is renewed without the NCH.</p>	<p>Refer to responses to A.51-209, H.65-406, A.51-91, and A.51-98.</p>

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H.65-734	<p>115- We are concerned with the proposed use of conservation easements for acquiring private inholdings. An easement only grants some but not all of the real property. Fee simple or quit claim acquisitions of inholdings are generally much better than dealing with the potential problems from easements.</p> <p>Addressed in Draft Amended HCP: Not adequately addressed. The document states that conservation easements are an acceptable tool for achieving Reserve acquisitions. It fails to address the issue with conservation easements not acquiring all of the real property. The document says that easements should be in perpetuity but opens the door for term conservation easements in circumstances where perpetual easements are not practicable.</p>	Refer to response to A.51-91.
H.65-737	<p>118- Specific mitigation measures must be provided for individual developments when the presence of a covered species is found on a development site. Individual developments related to the NCH would include the multiple phases of its construction, the associated highway projects that link to it, and any future utilities that would be constructed in the ROW and their yearly maintenance.</p> <p>Addressed in Draft Amended HCP: No.</p>	Refer to response to A.51-92.
H.65-638	<p>7-Free From Harmful Use: WCHCP needs to provide assurances and guidelines regarding management of the reserve system, including monitoring and adaptive management. Funding needs to be assured. Compatible, low-impact uses like hiking, bird-watching and photography may be appropriate on reserve lands, after appropriate environmental reviews to determine no significant impacts to species. But these lands should not be managed for multiple-use.</p> <p>Activities like ATV/OHV use, competitive sporting events, dispersed camping and target shooting should be banned. Specific management actions need to be outlined in the WCHCP.</p> <p>Addressed in Draft Amended HCP: Not adequately addressed. The Amended HCP fails to discuss impacts from the harmful uses that will continue in Zone 6. However, the Draft EIS discloses that harmful uses including ATV/OHV use, target shooting, and grazing and mining to some extent will continue in the proposed satellite reserve. Discussion of ending or reducing these activities on SITLA lands in Zone 6 is inadequate. The County simply proposes to spend \$55,000 more per year on law enforcement. Given the failure of law enforcement to prevent human-caused wildfires, dog-off leash issues, off-trail issues, etc., this will not cut it for Zone 6.</p>	Refer to response to A.51-91.

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H.65-670	<p>40- The preserve design needs to be based on scientifically accepted principles of reserve design which do not support the fragmentation of critical habitat by projects like the NCH; Addressed in Draft Amended HCP: Not adequately addressed. The document proposes a reserve design that would fragment the existing Reserve (and central mitigation feature of the 1995 HCP) with a highway in exchange for adding disconnected, damaged land in Zone 6. The document fails to discuss how this design does not meet the criteria for Reserve design envisioned by the 1994 MDT Recovery Plan.</p>	Refer to response to A.51-91.
H.65-671	<p>42- All available scientific data need to be included when identifying the actual reserve; Addressed in Draft Amended HCP: Not adequately addressed. The Amended HCP fails to consider the best available scientific data when identifying MDT in the Reserve or the larger Plan Area. Specifically, the document fails to incorporate the more sophisticated MDT potential habitat model by Defenders of Wildlife and NatureServe in 2019 (Feinberg et al. 2019). This model was submitted in the scoping letter submitted by the Red Cliffs Conservation Coalition (see page 61 and Appendix F). The Feinberg et al. (2019) model updates and refines Nussear et al. 2009 in many important ways. See "The DEIS relies on Nussear et al. 2009 even though more sophisticated modeling tools exist" in Section 3.5 Special Status Wildlife. Additionally, the draft HCP didn't adequately interpret the data that has been gathered on MDT from 1995 to 2020 (which shows population declines of 41 % in the Reserve). This data should have been used to assess threats, respond with an appropriate conservation strategy, and lay the foundation for an Amended HCP that actually protects the MDT.</p>	Refer to responses to A.51-91 and A.51-123.
H.65-680	<p>53- Dismiss the concept of using Zone 6 as a Mitigation Bank. Addressed in Draft Amended HCP: 308 No. The document fails to disclose how current legislation (H.R. 7815) attempts to establish Zone 6 as a mitigation bank: "The Secretary shall manage the Red Cliffs Desert Reserve, Zone 6, as a land bank to provide mitigation credits for future disturbances of the Red Cliffs Desert Reserve, including utility disturbances and the construction of the Northern Transportation Corridor identified in section 5(e). "</p>	Refer to response to A.51-91.

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H.65-681	<p>54- Analyze Zone 6 as mitigation considering acreage, quality, activities and fragmentation.</p> <p>Addressed in Draft Amended HCP: Not adequately addressed. The document lists the numerous damaging recreation type and illegal activities that occur in Zone 6 but fails to detail how these uses will be ended if Zone 6 is added to the Reserve. Discussion of how recreation and illegal uses will be managed on SITLA lands is seriously lacking because the Amended HCP says only that "The County will provide additional funding for Washington County Sheriff Deputy patrols within the Reserve. Law enforcement will support Reserve integrity, help manage allowed uses of the Reserve, and minimize impacts on MDT and listed plants within Reserve Zone 6."</p>	Refer to responses to A.51-91, A.51-94, and A.51-101.
H.65-684	<p>57- Ensure New Development Mitigation Measures.</p> <p>Addressed in Draft Amended HCP: Not adequately addressed. 6,813 acres in Zone 6 are proposed as mitigation for the NCH, but no additional mitigation is proposed for the loss of up to 66,301 acres of occupied and potential habitat in the permit area. Additionally, the Reserve's function as the primary mitigation measure in the 1995 HCP is undermined by the NCH.</p>	Refer to responses to A.51-91 and A.51-92.
H.65-696	<p>72- Define how Zone 6 Mitigates NCH Impacts:</p> <p>Addressed in Draft Amended HCP: Not adequately addressed See below.</p> <p>73- Define how Planned Zone 6 Fragmentation supports MDT recovery.</p> <p>Addressed in Draft Amended HCP: Not adequately addressed. The document fails to discuss how Zone 6 will support MDT recovery because it does not address the future planned highways that will impact Zone 6.</p> <p>Additionally, it fails to detail how the 150-mile network of roads and trails in Zone 6 would be substantially reduced, especially on SITLA lands.</p>	Refer to responses to A.51-91 and A.51-228.

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H.65-697	<p>74- The USFWS must also fully explore and disclose whether the proposed addition of 6,800 acres of marginal tortoise habitat, over half of which is already managed for protection of special status species in the BLM Red Bluff Area of Critical Environmental Concern (ACEC) is adequate to minimize and mitigate take of MDT. Addressed in Draft Amended HCP:</p> <p>Not adequately addressed. The document discusses the potential conservation benefit of Zone 6 in relation to the County retiring 3,338 acres of SITLA land from its incidental take. However, it fails to show how these SITLA acres would be permanently protected for conservation, leaving the acquisition largely in the hands of the BLM. The document should describe a plan for prioritizing SITLA acres in Zone 6 for federal land exchange.</p>	Refer to responses to A.51-91 and A.51-240.
H.65-698	<p>75- Consistent, Valid Survey Methods: Rely on scientifically valid surveys of tortoise populations in Zone 6 compared to the rest of the Red Cliffs Desert Reserve. Addressed in Draft Amended HCP:</p> <p>Not adequately addressed. The document fails to show how 2017 surveys of MDT in Zone 6 are valid because it only discusses survey results. It does not address the Draft EIS, which says that "Additional years of survey data will be needed to validate Mojave desert tortoise density in proposed Zone 6" (Vol. 2. 3-49). The document fails to discuss how the pre-project survey protocols used in Zone 6 are only meant to locate individual MDT. The distance sampling method is used to determine population density estimates in Red Cliffs. The density estimates of 22.5 tortoise/km<sup>2</sup> in Zone 6 is not comparable to the density estimate of 17.2 tortoise/km<sup>2</sup> in 2019 in Reserve Zones 2, 3 and 5. Flawed comparisons cannot be used to suggest that Zone 6 could mitigate for the adverse impacts the NCH will have to the largest population of MDT in Red Cliffs.</p>	Refer to response to A.05-11.
H.65-642	<p>11- The number, types and acreage of vegetation communities in the Reserve that show departure values greater than 20% from reference-baseline or Natural Range of Variability (NRV) established in 2011 Landscape Conservation Forecasting by The Nature Conservancy. Addressed in Draft Amended HCP:</p> <p>No.</p>	Refer to responses to A.51-91 and A.51-153.

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H.65-669	<p>39- Detailed mapping of vegetation communities (using agency accepted identification protocols) and wildlife habitats; Addressed in Draft Amended HCP: Not adequately addressed. The DEIS shows that LANDFIRE data was used to map vegetation communities but admits that "the LANDFIRE data are not intended to imply 100 percent accuracy on the ground." (DEIS at 3-12) Comprehensive on-the-ground surveys are required to provide the necessary information on the actual vegetation communities that occur within the Permit Area, and especially within the proposed NCH ROWs in order to analyze the actual acreage of permanent and temporary impact for each vegetation community.</p>	Refer to responses to A.51-91 and A.51-153.
H.65-674	<p>46- Effects of invasive species on the habitats and covered species; Addressed in Draft Amended HCP: Not adequately addressed. The document discloses that "all of the ecological systems in the Reserve have a high departure from their natural range of variability due to the presence of nonnative grasses and forbs in burned and unburned areas (Provencher et al. 2011). Invasive annual grasses common to the RCNCA and vicinity include red brome (Bromus rubens) and cheatgrass," but fails to discuss how Amending the HCP to accommodate the NCH will lead to increased presence of invasive weeds that harm MDT.</p>	Refer to responses to A.51-91 and A.51-153.
H.65-675	<p>48- Each vegetation type that occurs in the planning area must be protected adequately in the preserve; Addressed in Draft Amended HCP: No</p>	Refer to responses to A.51-91 and H.65-77.
H.65-676	<p>49- Vegetation communities listed in the 2011 Landscape Conservation Forecasting must be completely protected, including but not limited to creosote-white bursage scrub, warm season grassland, desert sand sagebrush, and blackbrush thermic. Addressed in Draft Amended HCP: Not adequately addressed. The document discloses the presence of these vegetation communities in the Reserve but fails to discuss how they will be protected. The Draft EIS shows that the NCH will destroy at least 285 acres of creosote-white bursage scrub, desert scrub and shrub land inside the Reserve. Indirect impacts of the NCH will affect 3,879 acres of chaparral and desert scrub. (DEIS Vol. 2, pg. 3-13).</p>	Refer to responses to A.51-91 and A.51-92.

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H.65-678	<p>51- Vegetation community and habitat mapping validation; Addressed in Draft Amended HCP: Not adequately addressed.</p> <p>The DEIS and Amended HCP rely on the Landfire data for impact analysis while recognizing that it is inaccurate: "The LAND FIRE data are not intended to imply 100 percent accuracy on the ground." (DEIS at 3-12) Comprehensive on-the-ground surveys are required to provide the necessary information on the actual vegetation communities that occur within the HCP plan area.</p>	Refer to response to A.51-91.
H.65-740	<p>121- Plant Species Mapping: Hundreds of plant species have been identified in this region, and each species needs to be identified and mapped as part of the DEIS analysis.</p> <p>Addressed in Draft Amended HCP: No. The document includes only generalized mapping of vegetation communities.</p>	Refer to response to A.51-91 and H.65-77.
H.65-659	<p>29- Analysis of recreation impacts in the Reserve, including the length of illegal social trails and other forms of off-trail travel and the impacts this has to wildlife, vegetation and soil crust.</p> <p>Addressed in Draft Amended HCP: Not adequately addressed. The Amended HCP must include a plan for enforcing on-trail recreation in the Reserve and Zone 6 that includes, at a minimum, law enforcement, outreach, and signage components. The Amended HCP must also include a detailed plan for rehabilitation of the "proliferation of social trails" documented in 6.3.3.1 Adaptive Management Program.</p>	Refer to response to A.51-91.
H.65-644	<p>13- Analysis of tortoise declines following each major wildfire. For example, following the 2005 fires, the tortoise population in Zone 3 declined by as much as 50%.</p> <p>Addressed in Draft Amended HCP: Not adequately addressed. The document discloses that MDT mortality in Zone 3 was 15%, and Reserve-wide was 3 7.5%, following the 2005 wildfires. However, the document fails to discuss how the NCH may act as a vector for wildfire in the future and does not include any plans for reducing the number of wildfires started on roads inside or adjacent to the Reserve.</p>	Refer to responses to A.51-153 and FIRE-01.
H.65-650	<p>19-Analysis and mapping of tortoise population declines inside the Reserve since 1995. At/dressed in Draft Amended HCP: Not adequately addressed. The document claims that, "the Red Cliffs Desert Reserve TCA hosts a higher density of adult MDT than any other TCA" and that "UDWR considers the population of MDT within the Reserve to have stabilized" following wildfires which reduced the population from 29.6 to 19.16 tortoises per square kilometer. It fails to use the most recent density estimates for the Reserve (17.2 tortoises per square kilometer in 2019) and does not account for the impacts of 2020 wildfires.</p>	Refer to responses to H.65-90 and A.05-11.

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H.65-651	20- Analysis of raven predation of tortoises inside the Reserve, including analysis of the relationship between highways and predator subsidies, and the relationship between utilities and raven perch sites. Addressed in Draft Amended HCP: Not adequately addressed. The document discusses raven predation trends in the Reserve but fails to discuss trends in Zone 6 or provide plans for combatting raven predation in Zone 6. 21- The DEIS should include a plan for combatting growing raven predation rates in the Reserve. This plan should investigate the use of targeted outreach and education; egg oiling; anti-perch devices; and use of techno-torts. Addressed in Draft Amended HCP: No.	Refer to responses to A.51-91 and A.51-153.
H.65-652	22- Analysis and mapping of Upper Respiratory Tract Disease (URTD) in the tortoise population in the Reserve, including known number of documented ELISA positives, what happened to ELISA-positive tortoises (dead or alive), where they were released after testing and plans for combatting URTD in the future. Addressed in Draft Amended HCP: Not adequately addressed. The document discloses that URTD and shell disease is present in the Reserve, that incidences are increasing, and that 11 % of the MDT in the Reserve displayed clinical signs of URTD in 2018 but shares no information beyond that.	Refer to responses to A.51-91 and A.51-153.
H.65-653	22- Analysis and mapping of Upper Respiratory Tract Disease (URTD) in the tortoise population in the Reserve, including known number of documented ELISA positives, what happened to ELISA-positive tortoises (dead or alive), where they were released after testing and plans for combatting URTD in the future. Addressed in Draft Amended HCP: Not adequately addressed. The document discloses that URTD and shell disease is present in the Reserve, that incidences are increasing, and that 11 % of the MDT in the Reserve displayed clinical signs of URTD in 2018 but shares no information beyond that. 23- Analysis and mapping of tortoise road mortalities on roads in and adjacent to the Reserve, including on roads in Washington County non-adjacent to the Reserve. Road mortality mapping should be overlain with mapping that depicts the age and general condition of the fencing around the perimeter of the Reserve and the fencing that delineates the roads. Addressed in Draft Amended HCP: Not adequately addressed. The Amended HCP fails to discuss, but the Draft EIS does disclose, that 146 tortoise mortalities have been observed on roads and trails in and adjacent to the Reserve. Specific details were not shared. The Amended HCP must include plans to curb road and trail mortalities in the Reserve and Zone 6 that includes, at a minimum, law enforcement, outreach, fencing, and road/trail closure components.	Refer to responses to A.51-91 and A.51-153.
H.65-654	24- We request that a plan for addressing fence blow-outs, including staff and money resources, be designed. Addressed in Draft Amended HCP: No.	Refer to response to A.51-91.

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H.65-655	<p>25- Analysis and mapping of poached, illegally "adopted" and stolen tortoises from the Reserve. There are many instances of tortoises being picked up from the Reserve and then dropped off at pet stores or at the Washington County HCP office. An analysis of the frequency and extent of this behavior is necessary. Addressed in Draft Amended HCP: Not adequately addressed. The Amended HCP fails to discuss, but the Draft EIS does disclose, that 38 incidents of suspected or confirmed illegal take of Mojave desert tortoises from the Reserve have occurred. The Amended HCP must include a plan for curbing MDT poaching in the Reserve and Zone 6 that includes, at a minimum, law enforcement, outreach (communitywide and pet-store-specific), and signage components.</p>	<p>Addressing illegal take is the responsibility of the USFWS under Section 9 of ESA. Section 9 of the ESA and Federal regulation pursuant to Section 4(d) of the ESA prohibit the take of endangered and threatened species, respectively, without a special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harm is defined by regulation as "an act which actually kills or injures wildlife. Such act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering." Harass is defined by regulation as "... an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding or sheltering." The USFWS would investigate credible cases of illegal take.</p> <p>Refer also to responses to A.51-91 and A.51-153.</p>

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H.65-656	26- Furthermore, analysis and mapping of the non-native tortoise species (like Russian tortoises, African sulcatas, and others) that are abandoned in the Reserve must be completed. People frequently abandon non-native pet tortoises in the Reserve. What is the relationship between abandonment on non-native species and spread of diseases like URTD and others? To what extent could the continued illegal releases of non-native tortoises in the Reserve cause increased competition with native tortoises for limited forage resources, especially in areas recovering from fire, largely infested with brome and mustard, or subject to heavy raven or other predation? How do non-native and native tortoises interact in terms of potential competition for home ranges and use of deep burrows, and how could such competition increase stress on native tortoises? Addressed in Draft Amended HCP: No. The Amended HCP must include a plan for curbing the rate of turtle and tortoise dumping in the Reserve and Zone 6 that includes, at a minimum, law enforcement, outreach ( communitywide and pet-store-specific), and signage components.	Refer to responses to A.51-91 and A.51-153.
H.65-657	27- Analysis of dog-off-leash issues, including a report on the number of tortoise carcasses and tortoise injuries found since 1995 that show signs of canid trauma. And a compilation of the number of all Law Enforcement citations/warnings that have been issued since December 1995 related to dog-off-leash issues. Addressed in Draft Amended HCP: Not adequately addressed. The Amended HCP fails to discuss, but the Draft EIS does disclose, that various reports over the last 10 years indicate predation of tortoises by dogs in the Reserve.	Refer to response to A.51-153.
H.65-668	38- Identifying, mapping and discussing the most productive and biologically valuable habitat across its range for the tortoise, and protecting this habitat in the reserve system, (not damaged by projects like the NCH) including the tortoise's current and potential future distributions; Addressed in Draft Amended HCP: Not adequately addressed. The Amended HCP relies heavily on a 2009 US Geological Survey (USGS) model developed by Nussear et al. to identify potential suitable habitat but fails to correctly understand and apply the model. See "The DEIS' application of the USGS (2009) model does not acknowledge and address shortcomings" in Section 3.5 Special Status Wildlife.	Refer to responses to A.51-91, H.65-94, and A.51-123.
H.65-683	56- Disclose the survey data used to determine the estimated abundance of tortoises inside and outside the Reserve and in Zone 6. Addressed in Draft Amended HCP: Not adequately addressed. The document fails to discuss the issues with using different survey methods in Zone 6 vs. the Reserve. It fails address the Draft EIS which says that MDT density estimates in Zone 6 have not been validated.	Refer to responses to A.51-150 and A.51-151.

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<b>Letter #- Comment # or Public Concern Statement #</b>	<b>Comment</b>	<b>Response</b>
H.65-695	<p>71- MDT Use of Culverts: analyze a wide range of literature related to the documented use of culverts by tortoises and the efficacy of culverts at mitigating habitat fragmentation.</p> <p>Addressed in Draft Amended HCP: Not adequately addressed. The document only references two studies on the use of culverts by MDT: (Balduini 2018) and (Deffner and Myers 2019). The document fails to show that culverts could mitigate habitat fragmentation caused by the NCH or existing roads in the Reserve because it references only studies that show the effectiveness of culverts and fails to discuss the implications of the USFWS documentation showing that only one MDT has ever been documented using a culvert in the Reserve.</p>	<p>The cited reports demonstrate that culverts may be effective for genetic considerations in other circumstances and may be effective in the Reserve, but additional study is needed to fully understand what design criteria and other conditions may be needed to maximize the potential benefit of Mojave desert tortoise passages. The adaptive management provisions of the Amended HCP provide a framework for better understanding the effectiveness of Mojave desert tortoise passages.</p>
H.65-699	<p>76- FWS should provide the scientifically peer reviewed literature that justified this change in estimating tortoise densities.</p> <p>Addressed in Draft Amended HCP: No.</p>	<p>Refer to response to A.51-150.</p>
H.65-700	<p>77- Where the FWS has used this exact methodology elsewhere and what the values were and how they were compared to other tortoise populations.</p> <p>Addressed in Draft Amended HCP: No.</p>	<p>Refer to responses to A.51-150 and A.51-151.</p>
H.65-701	<p>78- Justification (if any) for using a survey method that was designed to quickly assess the number of tortoises that would be impacted pre-Project. We understand that this survey method was not designed to estimate density and abundance to the same degree of precision as the surveys used throughout the rest of the Reserve.</p> <p>Addressed in Draft Amended HCP: No.</p>	<p>Refer to responses to A.05-11 and A.25-38.</p>
H.65-702	<p>81- Identify which survey method will be used henceforth in the Reserve- will it be your new Zone 6 methodology or the formerly used UDWR methodology and why?</p> <p>Addressed in Draft Amended HCP: No.</p>	<p>Refer to response to A.51-91.</p>
H.65-703	<p>79- How were the polygons in Zone 6 identified?</p> <p>Addressed in Draft Amended HCP: No. 80- The calculated statistical confidence intervals you relied on in your comparisons of Zone 6 densities to Zone 3. Addressed in Draft Amended HCP: No.</p>	<p>Refer to response to A.51-91.</p>

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H.65-724	<p>105- Examine the interplay between the ecological impacts of the NCH on MDT populations and habitat and the goals, objectives and criteria outlined in the 2011 Revised Recovery Plan for the Mojave Population of Desert Tortoise.</p> <p>Addressed in Draft Amended HCP: No. The Amended HCP fails to consider the impacts of the NCH on MDT populations in the Reserve or how the NCH violates criteria outlined in the 2011 USFWS MDT Revised Recovery Plan. This is a major omission because the Reserve, if fragmented by the NCH, will no longer function as the central mitigation feature of 1995 HCP and will fail to mitigate the County's application for re-authorized take of 66,301 acres.</p>	<p>Refer to response to A.51-102.</p>
H.65-728	<p>108- Disclose the number of construction-related mortalities that have occurred post-clearance on construction sites in Washington County since 1995. Addressed in Draft Amended HCP: No.</p>	<p>The USFWS inquired with the County on this comment and was informed that this information is not collected by the County. The County believes it is a rare event due to the translocation measures of the HCP. The Amended HCP includes information about the implementation of the translocation program.</p>
H.65-729	<p>109- Disclose the number of tortoises that have been found and reported post-clearance and successfully rescued prior to construction.</p> <p>Addressed in Draft Amended HCP: No. Though it's difficult to track, the Amended HCP must attempt to get a sense of the number of MDT taken due to covered activities authorized in the 1995 HCP in order to accurately calculate MDT declines in the plan area.</p>	<p>Table 9 of the Amended HCP describes the number of Mojave desert tortoises processed through the HCP between 1996 and 2019. Amended HCP Section 6.2 describes how the County has implemented the HCP during the original ITP Term and the report by Capone (2016) independently reviewed the history of implementation and compliance. The committee processes that support implementation of the HCP also ensure that decisions about the HCP are made in full view of the public and with the collaboration of the HCP Partners and other stakeholders.</p> <p>Refer also to response to A.51-91.</p>

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H.65-730	110- Include analysis of literature that explains the most successful clearance practices available today. These practices should be implemented in Washington County. Addressed in Draft Amended HCP: No. The document states that the County will continue to implement the clearance protocols (last amended in 2008) that are part of the Utility Development Protocols. However, the UDP's were amended before publication of the 2009 DESERT TORTOISE (MOJAVE POPULATION) FIELD MANUAL (Gopherus agassizii) which provides guidance on the most recently-approved clearance methods.	Refer to response to A.51-91.
H.65-731	111- Address Protocols for Construction Clearance Activities. Addressed in Draft Amended HCP: Not adequately addressed. The document fails to address any protocols beyond those contained in the existing UDP's but fails to show that these protocols have been successful by providing data on the number of MDT that have been taken post-clearance.	Refer to response to A.51-91.
H.65-640	9- Current percent cover of exotic annuals in the Reserve, including brome grasses, Russian thistle, Sahara Mustard and others Addressed in Draft Amended HCP: Not adequately addressed. The Amended HCP relies on data from 2015 which shows that "exotic annual grasses and forbs reach almost every area of the NCA, ranging from 5% to 30% coverage within the landscape (BLM 2015)." Current data on the percent coverage of invasive species is missing	Refer to response to A.51-91.
H.65-641	10- Document the spread of Sahara mustard from vectors Pioneer Park and Cottonwood Springs Road through the Reserve. Abundance of Sahara mustard in Pioneer Park and at Pioneer Hills, where the western terminus of the NCH would link up with RHPW, is concerning. How would the NCH contribute to increased levels of Sahara Mustard in the Reserve? Addressed in Draft Amended HCP: No.	Refer to response to A.51-91.
H.65-677	50- In addition, for BLM's sensitive plant species, including the 12 species found in Washington County, the USFWS must provide a robust analysis of the following factors: Assessment of current and potential future habitat/environmental conditions; Addressed in Draft Amended HCP: No. The document discusses federally-endangered and threatened plant species, but not BLM sensitive plant species.	Refer to responses to H.65-77 and H.65-83.

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Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-648	<p>17- An analysis of the accomplishments of habitat restoration projects in the Reserve/NCA. We find that habitat restoration is slow and intensive, but necessary process, and that great care should be given to ensuring that additional habitat restoration is not needed in the future due to wildfires that start from a highway vector, like the proposed NCH.</p> <p>Addressed in Draft Amended HCP: Not adequately addressed. The document states that Washington County has supported habitat restoration efforts but fails to discuss the progress of restoration efforts led by the BLM and UDWR.</p>	Refer to response to A.51-91.
H.65-658	<p>28- A plan for combatting the increasing issue of dog-off-leash issues in the Reserve, complete with plans for signage and targeted community outreach, perhaps visits and literature distributed at local dog parks, and new content added to the Red Cliffs Desert Reserve website which would share a list of public lands in Washington County where people are allowed to have their dogs off-leash as contrasted to the Reserve, where dogs are not allowed off leash.</p> <p>Addressed in Draft Amended HCP: No. The document discloses that this is a problem but offers no solution: "Despite leash requirements within the Reserve, predation by domestic dogs (as well as ravens) likely play a role in the population dynamics of MDT within the Reserve (McLuckie et al. 2018) and the decline of MDT within the Permit Area." The Amended HCP must include a plan for leash laws in the Reserve and Zone 6 that includes, at a minimum, law enforcement, outreach, and signage components.</p>	Refer to response to A.51-91.
H.65-649	<p>18- An analysis of the health of crypto biotic soil crusts in the Reserve/NCA. Attention may need to be given to restoration of crypto biotic soil crusts in the near future. These crusts hold the soil, add nutrients, and resist invasive plant species.</p> <p>Addressed in Draft Amended HCP: No. This is a critical omission because cryptobiotic crusts play a large role in supporting the native vegetation communities MDT rely on for nutrition. They also play a role in preventing the spread of invasive weed species. The Amended HCP must include information on the health of soil crusts in Red Cliffs.</p>	Refer to response to A.51-91.
H.65-645	<p>14- Analysis of re-burned areas and their proximity to the proposed NCH. For example, the eastern terminus of the NCH is less than 1 miles from critical tortoise habitat that has burned 4 times between roughly 1990 and 2014.</p> <p>Addressed in Draft Amended HCP: No.</p>	<p>The Amended HCP Section 6.3.2 has been revised to address the 2020 wildfires.</p> <p>Refer also to response to FIRE-01.</p>

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H.65-646	<p>15- Analysis and mapping of the number of fires, as far back as the fire data goes, that started on roads inside and adjacent to the Reserve, including Cottonwood Springs Road, Red Hills Parkway, SR-18 and I-15.</p> <p>Addressed in Draft Amended HCP: No.</p>	Refer to response to A.51-91.
H.65-50	<p>Following please find our formal objection to the application of Washington County for a new, revised, renewed, or amended ITP under the inadequate draft Habitat Conservation Plan (HCP) that the county provided with its ITP application. This ITP application and draft HCP are included within the overall NEPA DEIS analysis relating to the proposed Northern Corridor Highway (NCH). Our objection is based on the many legal, factual, and logical grounds described in much greater detail elsewhere in these comments. As such, we hereby incorporate by reference our comments in their entirety for this objection, including those comments located in 2.2 Key Legal Issues; 3.5 Special Status Wildlife; 4.1 Comments on Draft Amended Washington County Habitat Conservation Plan (HCP).</p> <p>In addition, we highlight and summarize some basic components of our objection below. The county's ITP application and draft HCP (collectively, "draft HCP") is flawed, and is inadequate, for the following reasons: (2.5 pages of summary points in PDF file)</p> <p>For purposes of this objection, Tom Butine and Sarah Thomas of Conserve Southwest Utah are the coalition's contacts to receive any required notifications.</p>	The USFWS acknowledges the formal objection(s) on this ITP application and will follow the process as outlined in the ESA regulations at 50 CFR Section 17.22(e).
A.53-1	<p>Regarding its lands within Zone 6, SITLA would require the following:</p> <ul style="list-style-type: none"> <li>• The existing reoccurring Rights of Entries (ROEs) for non-motorized competitive events within Zone 6 would be allowed to continue, including climbing activities within the Zen Trail area.</li> <li>• SITLA will need to be compensated for its lands within Zone 6, but the timing and manner (monetary compensation, land exchanges, etc.) is open to negotiation.</li> </ul>	Refer to response to A.51-240 regarding funding. Section 9.1.1 of the Amended HCP addresses allowed uses with Reserve Zone 6.
A.51-14	<p>Management of the Red Cliffs Desert Reserve must be required in perpetuity in the absence of a new freeway because the impacts of the taking of the tortoise since 1996, primarily from development and related infrastructure, are permanent, ongoing, and affect an area greater than the footprint of these projects. In addition, in its 1996 biological opinion the USFWS stated the "Mitigation measures proposed to offset effects of the [1995 HCP's] proposed action....including conservation and management of approximately 38,753 acres of desert tortoise habitat in perpetuity or for as long as it is required under the [Endangered Species] Act." These goals should have corresponding objectives and conservation actions, a schedule for implementation, and guaranteed funding in the 2020 HCP, which as currently written, are not adequately documented.</p>	Refer to response to A.51-104.

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-134	<ul style="list-style-type: none"> <li>• The DEIS fails to show that BLM has budgeted for the necessary management and restoration of Zone 6. The draft amended HCP discusses funding for Zone 6 provided by Washington County that is insufficient for reducing threats to MDT caused by the uncontrolled recreation that occurs there.</li> <li>• While no details are provided in the DEIS on the number of law enforcement officers that would be assigned to Zone 6, it is clear that multiple law enforcement officers assigned only to Zone 6 would be required to prevent the illegal dumping, target shooting, OHV use, dispersed camping and off trail mountain bike use that regularly occurs in Zone 6.</li> <li>• The DEIS does not demonstrate that the funding would be sufficient for effective long-term habitat restoration in the portions of Zone 6 that have been mined, heavily grazed and crisscrossed with more than 42 miles of social trails and more than 100 miles of other routes.</li> <li>• The funding would only provide for "education and outreach efforts that may include videos, advertising, handouts, community engagement, contractor training, and volunteer coordination" (Draft HCP pg. 132). This funding is insufficient because it does not support additional education specialists. To reign in the damaging recreational uses, multiple education specialists would be required to provide outreach to the 82,775 annual visitors (2019) and the fast growing communities adjacent to Zone 6 on tortoise awareness and authorized uses in Zone 6.</li> </ul>	Refer to responses to A.51-91 and A.51-247.
H.65-258	<p>The Red Cliffs Desert Reserve Habitat Management Plan - Revised April 2019 (Appendix D of HCP) recognizes the threat that fire poses to the Red Cliff Desert Reserve, stating "In 2018, wildfire continues to be one of the greatest threats to tortoise habitat." and "The proliferation of nonnative annual grasses and resulting wildfires has raised concerns about long-term management of the habitat and recovery of tortoises within the RCDR." (HCP Appendix D at D-1). However, the Seven Priority RCDR HMP Action Items presented in Table 1 (at D-2) are non-quantitative and appear aspirational. No targeted minimum acreage for revegetation or weed abatement are included. With the recognition that the Reserve is being overrun with non-natives grasses in particular, the Management Plan needs to include quantifiable goals/targets for non-native reductions annually. How can effective management be measured otherwise? Frankly, it is unimaginable that 25 years after the original HCP was signed, no quantitative goals have yet been put in place.</p>	<p>The Amended HCP further describes fire management commitments in Section 6.3.2.8, Reserve Habitat and Fire Management Guidelines. The Amended HCP describes the adaptive management and monitoring program in Section 6.3.3.</p> <p>Refer also to responses to A.51-93 and A.51-114.</p>

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H.65-259	<p>Action Items presented in Table 1 (at D-2) are primarily aspirational without any required commitment to actually achieving or implementing them:</p> <ul style="list-style-type: none"> <li>• The BLM is working on getting Indaziflam/Esplanade approved for ROW application.</li> <li>• The BLM SGFO is working on new permitting stipulations regarding ROW maintenance and exotic nonnative plant control/effectiveness monitoring within existing ROWs.</li> <li>• Continue to research (and plan to implement) outplanting or reseedling of warm season fire-resistant grasses</li> <li>• There are ongoing plans to manually remove invasive species</li> <li>• The TC and RCDR stakeholders are planning to create two or more Esplanade herbicide study plots in different vegetation types within the RCDR.</li> <li>• Research native specific species to compete with exotic nonnatives.</li> <li>• The TC and RCDR stakeholders are planning to create two or more Esplanade herbicide study plots in different tortoise habitat types within the RCDR.</li> <li>• The BLM SGFO plans to conduct an environmental assessment (EA) for the targeted use of herbicides to control invasive- nonnative plant species within the Red Cliffs NCA that follows best available science.</li> </ul> <p>(Appendix D at D-2 - emphasis added)</p> <p>Planning on an action (aspirational) is very different from implementing the action (actionable). Non-native invasive grasses have been a problem since at least the 2005- 2006 fires that ravaged the Reserve (and the desert tortoise population) and yet, the "management" of the Reserve (and NCA) seems to have resulted in more non-native invasions (including greater cover) and more acres burned. Until this difficult issue is met with action items that result in tangible results to move the habitat back towards suitable habitat for desert tortoise and other native species, the Reserve and the NCA will continue to degrade to the detriment of the native species that the Reserve purports to protect including the desert tortoise.</p>	Refer to responses to A.51-91 and A.44-4.
H.65-260	<p>In addition to clear quantitative goals and non-aspirational Action Items, the Implementing Agreement needs to be drastically revised to substantially increase development fees so that the costs of managing to control non-native plant species and aggressive fire prevention and control are covered. Without equitable mitigation for impacting desert tortoise and its critical habitat, the HCP fails the purpose of the Endangered Species Act which is "to protect and recover threatened and endangered species and the ecosystems upon which they depend" (USFWS 2016).</p>	Refer to response to A.44-4.

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H.65-261	Shocking, the plan includes objectives that appear to promote not only fragmentation of the habitat but create additional opportunities for non-native introductions via new roads and fire breaks. For example, Strategy 1.2 calls for "Establish and/or maintain firebreaks in priority areas" with Action Item 1.2.1 (B) stating "Continue prioritizing roads and ROW's that can serve as firebreaks;" (Appendix D at D-3). This Strategy and Action disregard the best available science which clearly documents that roads and rights-of-way are not only ignition sources for fire, but also are vectors for introductions of non-native invasive species (see literature above).	Refer to responses to A.51-91 and A.51-114.
H.65-45	The DEIS also failed to provide the public with studies necessary to evaluate the environmental cost of the NCH against the possible mitigation value of Zone 6. FWS routinely provides spatial decision support models and resource equivalency analyses in draft HCP documents open to public comment. These studies help the public understand the amount of mitigation that might be required to compensate for projects that damage federally-listed species and their critical habitats. These are standard analyses for projects that have major ecological consequences. Members of the undersigned organizations requested these documents on or around August 20, 2020, but BLM failed to respond.	Refer to response to DATA-01.

**0.3.16 Hazardous Materials and Solid Waste**

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-489	The DEIS should list and analyze all dust palliatives, herbicides, and other chemicals used during construction, as well as the risk for spills of oil, fuels, toxic chemicals, and all hazardous materials that could wash onto adjacent wildlife habitat during rain events and flooding. Spills from accidents on a highway should also be analyzed into the future. Addressed in the DEIS: No.	As stated in Section 3.24.2.2 of the EIS, “Equipment used in construction of the proposed Northern Corridor also may inadvertently release oil, petroleum, or lubricants. In addition, once the Northern Corridor is operational, vehicles transporting waste products or hazardous materials may have a release from a crash or other traffic incident.” Use of herbicides is not proposed as part of the proposed action. Fugitive dust from construction is not a hazardous waste or a hazardous material. The impacts of dust as a result of construction are appropriately discussed in the air quality section of the EIS (Section 3.12.2.2), and the impacts of dust on vegetation are also discussed in Sections 3.2.2 and 3.3.2 of the EIS. If an action alternative is selected, a Fugitive Dust Control Plan and a Hazard Materials, Hazardous Waste, and Spill Prevention Plan would be prepared prior to construction to minimize potential impacts of dust as a result of construction, as well as to prevent spills of hazardous materials.
H.65-490	2. Will truck shipments of mining materials, toxic chemicals, fossil fuels, or other hazardous materials be allowed to drive on the Northern Corridor through a high-value NCA? This should be analyzed in the DEIS. Addressed in the DEIS: No.	As stated in Section 3.24.2.2 of the EIS, “once the Northern Corridor is operational, vehicles transporting waste products or hazardous materials may have a release from a crash or other traffic incident.”

**0.3.17 Human Health and Safety**

<b>Letter #- Comment # or Public Concern Statement #</b>	<b>Comment</b>	<b>Response</b>
5240-2	The BLM considers human health and safety impacts to recreational users, but not to one of numerous residents to the adjacent NCH. Residents that will be subject to vehicle and highway light pollution, experience traffic noise pollution, that will suffer from the litter pollution, and no doubt be at risk of increased air pollution on a daily basis.	Air and noise impacts are addressed in Sections 3.12 and 3.23 of the EIS, respectively. Air quality is expected to worsen as the population grows, and by 2050, most intersections in the study area will meet very poor levels of service. Improving the level of service on roadways and at intersections within the entire traffic network equates to less congestion and delay and better air quality conditions within the project area. An increase in noise levels is anticipated near the T-Bone Mesa Alignment, UDOT Application Alignment, and Southern Alignment because these alternatives propose that a new highway would be constructed in an area where no roadway currently exists. The Red Hills Parkway and one-way couplet alternatives would not result in a substantial change in noise compared to the no-action alternative. Once an alignment has been selected and a more advance level of design is completed, a more detailed noise analysis will be conducted to determine potential noise impacts and mitigation.

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.09-1	<p>Public Safety Considerations Firstly, the safety of residents living adjacent to both the proposed UDOT alignment Alternative 3 is paramount. As the fires of July 12-14, 2020 illustrated, roadways are frequently a point source for fires and can move very swiftly. The Leeds fire in Washington County is an excellent example. It was started by a blowout on the highway and spread quickly due to the 15-20 mph winds. It initiated the evacuation of Harrisburg and Leeds residents and charred more than 1600 acres. Highways can be the point source fires due to blowouts, lighted cigarette butts, sparks, catalytic converters on dry brush, electric utilities and other human actions such as fireworks. Given the types of low-lying, extremely dry fuel types that characterize our area along with typically A.09 erratic and/or strong winds during such events, fires can move swiftly and in almost any direction in Washington County. QUESTION: What assurances can the BLM/Washington County provide to eliminate the likely threat of fire to the both residents and tortoise population?</p>	<p>Refer to response to FIRE-02. Fire suppression on public lands in Washington County will be directed by objectives and prescriptions identified in the Color Country and Paria River Fire Management Plan, which states that “this plan has been prepared on the foundational principle that firefighter and public safety is the priority in every fire management activity.” Additionally, fire prevention cannot be assured by the BLM or Washington County, as it is largely dependent on individual actions and vehicular maintenance. Additionally, highways can serve as fuel breaks and access points for firefighters, giving them a better chance at containing wildfires.</p>
Form 4-21	<p>BLM dismisses considering the Washington Parkway Extension (WPE) as a connected action to the NCH.[3] In doing so, they fail to consider the negative impacts to residents in Brio and Warm Springs that would result from the new highway connecting to the WPE.</p>	<p>The Washington Parkway Extension has independent utility, as described in Table 1.5-2 of the EIS. Additionally, the Washington Parkway is considered in cumulative effects as described in Section 3.28.</p>

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7295-9	<p>Where in the new DEIS can we find details on impacts to residents in Washington City? I'm specifically referring to homes on the EAST side of Green Springs (all the way east to Brio and Warm Springs), as well as homes on the WEST side of Green Springs (all the Middleton and further east). Currently, homes near the new extension of Washington Parkway are experiencing far less than 1,000 vehicles/day on that road, but a N. Corridor would change all that, and would drastically increase traffic on that road to over 30,000 vpd according to DMPO. So impacts to residents further east need to be studied. Where in your DEIS can we find info for these residents to the east, with regards to noise, air pollution, litter, light pollution, impacts to scenery, property values, quality of sleep, health, and especially decibel studies? Washington City estimates that noise levels at many homes will go from 30 decibels to 60 decibels, which is 8x more loudness (60 decibels is equivalent to a chain saw at 400' away). Where can we find these details for eastern residents in your study?</p>	<p>For several of the resources listed in the comment, the Draft EIS does not specifically reference impacts to these residential areas as being distinct from the overall analysis area. The EIS addresses these in Section 3.23, Noise, and Section 3.12, Air Quality, as well as addressing scenery in Section 3.13, Visual Resources (although some specific Key Observation Points were chosen to simulate the altered view from the residential areas adjacent to the NCA boundary). Appendix D of the EIS includes a design feature for the new highway stating "Impacts to dark night skies will be prevented or reduced through the application of specific mitigation measures identified in activity level planning and NEPA level review. These measures may include directing all light downward, using shielded lights, using only the minimum illumination necessary, using lamp types, such as sodium lamps (less prone to atmospheric scattering), using circuit timers, and using motion sensors." Potential changes to property values for properties not located immediately within the vicinity of the proposed alignments, or the sleep patterns or overall health of the residents living there, were not included due to the amount of other factors involved in determining potential impacts.</p>

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A.38-1	<p>The Red Hills Expressway Alternative would also negatively impact local culture and public safety. For example, Pioneer Park is a natural red slick-rock park where area residents and visitors of all ages can hike, climb, rappel, and picnic among the rock formations. The park area includes a recently completed desert botanical garden. The park is directly north of Red Hills Parkway with trails, parking, and overlooks on both sides of the Parkway. The Red Hills Expressway Alternative would likely result in the closure of Pioneer Park due to lack of access. It could also result in the destruction of the "Dixie Rock" or Sugarloaf rock formation in order to widen the Parkway. Even if these outcomes could be avoided, access would be severely restricted and park space would be lost to provide for the wider roadway. Even if Pioneer Park could be preserved, it would be adjacent to a higher speed expressway, which would pose a public safety risks; a factor the BLM must analyze.</p>	<p>Refer to Appendix J, Highway Alternatives Technical Report, of the EIS. The park areas described in the comment would not be impacted by the widening. The proposed widening would occur primarily to the east of Dixie Rock. Access to Pioneer Park and the nearby botanical garden may be impacted by construction but would otherwise be left unaffected.</p> <p>Pioneer Park is currently located next to the existing Red Hills Parkway. Safety for visitors at Pioneer Park under existing conditions is comparable to that of the Red Hills Parkway Expressway if implemented, due to safety design features required by local and State transportation jurisdictions.</p>
A.25-9	<p>"Table ES.5-1: The table addresses "Fire and Fuels Management" and "Human Health and Safety" by asserting that an NC through Red Cliffs "could provide a barrier to spreading active wildfires" and "would facilitate improved emergency access in the NCA." Both of these claims provide no definitive reason for building a highway through Red Cliffs. "Could" provide a wildfire barrier is not reassuring when we see wildfires crossing twelve-lane freeways in California with ease. The table acknowledges that the highway "may potentially introduce new ignition sources and increase fire risk" which is more accurate and the greater possibility given what we've seen and what is reported by fire officials. The table notes that management in the proposed Zone 6 would restrict uses that could introduce new ignition sources, but the DEIS acknowledges further in the document that additional "NEPA analysis" would be required for Zone 6 so we don't even know if that management that would reduce fire potential will even materialize.</p> <p>Asserting the NC through Red Cliffs would better serve human health and safety by facilitating improved emergency access in the NCA fails to acknowledge that by "providing more access" to Red Cliffs the situation is being set up for needing more emergency access. Additionally, there are ways of addressing emergencies in Red Cliffs that do not require a new highway."</p>	<p>Refer to response to A.09-1. Additionally, the EIS analyzes resource impacts from the range of reasonable alternatives developed based on the BLM's purpose and need, which is to respond to UDOT's application for a ROW grant. UDOT's objective is to construct a highway that reduces congestion, increases capacity, and improves east-west mobility. Refer to Chapter 1 of the EIS for the purpose and need and applicant's objective.</p>

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A.42-2	<p>With the strong potential for increased fires attributable to human causes along what would be a medium to heavily used roadway, I am greatly concerned about the safety of my family and my neighbors—my house being a mere 1,500 feet from both the UDOT proposed highway (Alternative 3) and Alternative 4 alignments and slightly further from the Alternative 2 alignment. These alignments are too close to residential areas and such proximity leaves little time for firefighters to respond to the scene and little time for residents to evacuate when the inevitable fire starts along these alignments.</p>	<p>Refer to response to A.09-1.</p>
H.65-300	<p>"The proposed recreation projects identified in Table 3.28-1 and ongoing recreation activity and interest in the area could increase the need for emergency response. The projected population growth would also increase the need for emergency response. Construction and operation of the Northern Corridor, together with other reasonably foreseeable future new and improved roadways, would temporarily change traffic patterns, and construction equipment could present a risk to drivers and potentially delay emergency services. In the long term, however, these same roadway projects provide emergency responders additional travel routes and access to new areas that could benefit public safety.</p> <p>Issue 24. We disagree with the highlighted statement. The benefit of emergency response is offset by the danger inherent in a highway."</p>	<p>Comment noted. Note: Table 3.28-1 in the Draft EIS is Table 3.28-2 in the Final EIS.</p>
H.65-301	<p>"The cumulative effects related to changes in air quality, noise, or the generation and transport of hazardous waste are not expected to have notable impacts to human health and safety because the adverse effects would be minor and controlled by regulatory processes.</p> <p>Issue 25. We disagree with the highlighted statement. Alternatives 2-4 introduce air quality, noise and hazardous waste to an area that would not otherwise have it. Regulatory processes have a limited impact."</p>	<p>Comment noted.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-610	<p><b>12-Health Benefits:</b> The DEIS must address NCH related impacts to health, including the following impacts, concerns and issues listed below in items 1 - 3: (123)</p> <p>Addressed in DEIS: No</p> <ol style="list-style-type: none"> <li>1. The value of open space, scenery and recreation to community health.</li> <li>2. Most trailheads in Red Cliffs are located between 5 and 15 minutes from downtown St. George. The Centers for Disease Control and Prevention (CDC) reports that greater access to parks leads to 25% more people exercising three or more days per week.</li> <li>3. By preserving Red Cliffs, natural soundscapes are preserved. Freedom from excessive human-caused noise, including highway noise, is beneficial to health. Studies have shown highway noise increases heart rate, blood pressure, cortisol and have adverse cardiovascular consequences. Chronic exposure to excess noise leads to chronic stress, heart disease and stroke.<sup>143</sup></li> </ol>	<p>The analysis in the EIS focuses on impacts that can be objectively characterized, either quantitatively or qualitatively by relying on data and/or peer-reviewed research wherever possible.</p> <p>Section 3.13, Visual Resources, and Section 3.15, Recreation and Visitor Services, describe the direct and indirect impacts for each of the alternatives.</p> <p>Additionally, noise impacts are assessed in Section 3.23 and conclude that an increase in noise levels is anticipated near the T-Bone Mesa Alignment, UDOT Application Alignment, and Southern Alignment because these alternatives propose that a new highway would be constructed in an area where no roadway currently exists. A separate project analysis with a more detailed noise analysis would be required per the UDOT Noise Abatement Policy and conducted after completion of the ROD if an action alternative is selected. In that separate project analysis, potential noise impacts would be determined through modeling and the need for noise abatement would be assessed.</p>
H.65-547	<p>20. How will the BLM keep lands adjacent to the highway clean and free from litter? Litter released by open dump trucks and vehicles on Red Hills Parkway, the other 4- lane highway through the NCA, spreads into the NCA and accumulates on roadsides, subsidizing tortoise predators and diminishing scenic qualities. Addressed in the DEIS: No.</p>	<p>Highway cleanliness cannot be assured by the BLM or Washington County as it is largely dependent on individual actions. However, as detailed in the POD, ongoing operation, maintenance, and traffic management of the roadway corridor (UDOT Alignment Alternative) will be managed by the applicant's operations, maintenance, and traffic staff.</p>

**0.3.18 Land and Water Conservation Fund Lands**

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.24-9	<p>9) The NCH DEIS acknowledges that NPS must approve mitigation for the NCH degrading any LWCF state funded acquired parcels, but NPS was not invited to be a cooperating agency and there is no information on when or how the NPS approval process works or whether it would require subsequent NEPA compliance (relevant to Alternative 5).</p> <p>Alternative 5 would degrade about an acre of LWCF state-side funded acquired land. The LWCF law allows this once proper mitigation or compensation has been approved by NPS and implemented. However, the NCH DEIS omits some important information about how this process would work if Alternative 5 is ultimately approved. This omission is serious because I and many others support Alternative 5 because it would meet the future transportation need without harming RCDR and RCNCA lands nor causing tortoise “take” and adverse modification of tortoise critical habitat. For example, the timing of this NPS approval process is not clear, nor whether subsequent NEPA analysis of the proposed mitigation or compensation method would be needed.</p>	<p>The State Land and Water Conservation Fund (LWCF) Liaison Officer has been notified of the project and engaged in identifying State LWCF properties within the analysis area. If Red Hills Expressway is the selected Northern Corridor alternative, the National Park Service (NPS) would be engaged on the project following the ROD. The notification of a potential conversion of use would be completed through submittal of NPS’ Proposal Description and Environmental Screening Form. The Environmental Screening Form would aid in determining the necessary NEPA review and documentation. The extent and nature of the potential conversion would be subject to advanced project design and consultation with NPS. If a conversion is ultimately required, the formal request and conversion proposal would be submitted by the State Liaison Officer to the NPS in accordance with 36 CFR 59. This proposal would include any necessary NEPA documentation that would analyze impacts of the State LWCF conversion and proposed replacement land, as well as compliance with other Federal, State, and local requirements. NPS is responsible for independent review of the proposal and can approve or deny the conversion and/or replacement property. EIS Section 3.16.2.1 has been revised to disclose that additional NEPA documentation may be required, subject to NPS requirements, and to provide direct reference to the <i>Land and Water Conservation Fund State Assistance Federal Assistance Manual</i> (NPS 2008, pp. 8-3 to 8-12), which details the conversion process.</p>

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A.24-10	<p>10) The NCH DEIS fails to acknowledge that the NCH alternatives would not comply with the LWCF law because there is no federal authority to allow LWCF federal side funded acquired parcels to be degraded for non-conservation purposes (as would occur under Alternatives 2,3, and 4). The LWCF law does not provide BLM or FWS with any discretionary authority to approve a project that would directly or indirectly harm the values or purposes for which parcels were acquired with LWCF federal-side funds. As such, portions of the Alternative 2,3, and 4-NCH alignments would cause such impermissible harm and therefore those alternatives would violate the LWCF law. BLM and FWS improperly failed to disclose or analyze this potential illegality in the NCH DEIS on this challenge. Moreover, BLM and FWS assert that there is no obligation to mitigate or compensate for such harm. That, too, is misleading. In contrast to the handling of LWCF state-side acquired parcels, there is no authority to harm LWCF federal-side acquired parcels and therefore there would have been no reason for Congress to provide for such mitigation or compensation.</p>	<p>The BLM are unaware of any express statutory or regulatory language prohibiting BLM from issuing a ROW grant across lands BLM acquired with LWCF funds. As explained in Chapter 3.16 of the EIS, BLM acquired these parcels pursuant to its authority under 43 U.S.C. 1715 for the purposes of land tenure consolidation and wildlife habitat acquisition in accordance with the 1996 Implementation Agreement. Lands that are acquired pursuant to 43 U.S.C. 1715 are subsequently managed in accordance with the governing land use plan. Here, the 2016 Red Cliffs NCA RMP (LAR-12) expressly provides that acquired lands may be encumbered by transportation and utility ROWs. Therefore, additional mitigation or compensation is not required.</p> <p>In addition, as detailed in the POD, UDOT will make reasonable efforts using construction techniques and technology or equipment available at the time of roadway construction and reasonable feasibility, including economic feasibility, to incorporate such technology into the project design as may be reasonably appropriate to comply with any specific requirements applicable to impacted LWCF parcels.</p> <p>The BLM has revised Section 3.16 of the EIS to now identify each of the LWCF-acquired parcels crossed by the ROWs considered in Alternatives 2,3, and 4 and has disclosed the amount of acreage that could be encumbered for each parcel in each alternative's ROW.</p>

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A.44-1	In addition, Alternatives 2,3, and 4, if approved and implemented, would improperly destroy RCDR and Red Cliffs NCA tortoise habitats acquired with many millions of public LWCF dollars. The LWCF law does not give BLM or FWS the authority to approve such destruction. And any attempts at such approval would directly conflict with the explicit LWCF purposes of these expensive acquisitions as well as the statutory purposes of the LWCF law. As such, again, BLM and FWS cannot approve of such destruction and therefore Alternatives 2,3, and 4 should not have been carried forward for NCH DEIS analysis.	Refer also to response to A.24-10. The BLM has determined that the maximum acreage impact by each alternative's ROW is small compared to total acreage acquired with LWCF funding located within the Red Cliffs NCA and the Reserve. The BLM has also disclosed the impacts to Mojave desert tortoise and other wildlife associated with the ROW and determined that it is possible for a ROW to encumber these lands without compromising habitat where disturbance is not necessary. This determination is based, in part, on the BLM's requirement that, within the ROW boundary, an applicant must minimize its footprint related to construction and operation to the minimum disturbance necessary.
A.45-1	The LWCF law does not give BLM or FWS the discretionary authority to approve the destruction of habitats acquired with federal-side LWCF monies. In contrast to state-side LWCF acquired lands that may be destroyed with proper compensation, there is no such authority for federal-side LWCF acquired parcels.	Refer to responses to A.24-10 and A.44-1.
A.45-2	BLM and FWS should not attempt to approve the improper destruction of federal-side LWCF acquired lands, nor establish a national precedent that would undermine the basic purposes of the new LWCF law and related Congressional appropriations.	Comment noted. Refer to responses to A.24-10 and A.44.1.
A.32-2	Portions of Red Cliffs Desert Reserve and NCA were acquired using monies from the Land and Water Conservation Fund (LWCF). Building a road over lands conserved with these funds is problematic. Parcels acquired with these funds must be managed for conservation and recreation purposes. This is another challenge posed by the Preferred Alternative which does not apply to Alternative 5.	Comment noted. Refer to responses to A.24-10 and A.44.1.
H.65-16	Acquisitions funded through LWCF state grants must remain in recreation use in perpetuity, unless the Secretary of the Interior approves of the conversion of the land to another use and acceptable replacement lands are substituted. Id. at §200305(£)(3).	Refer to response to A.24-9.
H.65-17	Importantly, lands and interests in lands acquired through LWCF's federal-side acquisition program must remain in Federal ownership, and - unlike the state-side program - lands acquired through the federal-side program	As a result of information provided to the BLM during the public comment period, the BLM has identified and confirmed in the Final EIS all

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	<p>may not be converted to other non-recreational and nonconservation uses. Compare 54 U.S.C. §200305(£)(3) (explicitly permitting conversion of stateside acquisitions), with id. at §200306 (federal-side program). The DEIS identifies a series of lands acquired by BLM through the LWCF federal-side program, including several parcels that will be at least partially converted (to pavement) under the alternatives in the DEIS. DEIS at pp. 3-135-136; Map 3.16-1. Importantly, the Agencies provide no factual background on these acquired lands, and the DEIS is devoid of any agreement, warranty deed, appropriation or acquisition authorization, project description or any other document identifying the purposes behind these acquisitions.</p> <p>Moreover, the Agencies' map and analysis are incomplete, and there are additional parcels that have been acquired using the LWCF federal-side program that will be directly and indirectly impacted by the NCH. More specifically, as shown by the chart below, since 1997, BLM has acquired no fewer than 15 parcels within the footprint of the NCH, totaling almost 832 acres of public lands. BLM has used \$20,734,622.20 in appropriated funds on these acquisitions. The chart and map below illustrate and provide additional information on these acquisitions.</p>	<p>Federally acquired LWCF parcels that could be encumbered by Alternatives 2, 3, and 4 in the NCA. Section 3.16 and Map 3.16-1 have been updated to reflect this additional information. The BLM has also determined that these 15 parcels were acquired to further the 1996 Implementation Agreement's goals of land tenure consolidation within the then-Preserve (now NCA) and wildlife habitat acquisition. In reviewing the warranty deeds and other administrative files associated with each of these LWCF parcels, The BLM has determined that there is no express language prohibiting future encumbrances on all but one parcel. The exception is UTU-79246, where the BLM acquired a conservation easement over lands owned by the City of St. George in 2002. The conservation easement was acquired with LWCF funds and the deed expressly prohibits future development of those lands that are inconsistent with defined conservation values. The BLM does not have authority to issue a ROW over lands it does not manage. It is an applicant's responsibility to acquire all necessary grants and permissions for a ROW across other property. As detailed in the POD, UDOT will make reasonable efforts using construction techniques and technology or equipment available at the time of roadway construction and reasonable feasibility, including economic feasibility, to incorporate such technology into the project design as may be reasonably appropriate to comply with any specific requirements applicable to impacted LWCF parcels, such as avoiding any encumbrance that would be inconsistent with the purposes of the conservation easement acquired by the BLM under UTU-79246. Refer also to responses to A.24-10 and A.44-1.</p>

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H.65-18	<p>In the DEIS, the Agencies admit that "construction of the Northern Corridor would directly encroach on a number of parcels the BLM had previously used LWCF to acquire and incorporate into the NCA." DEIS at 3-136. Under the LWCF Act, however, BLM is prohibited from "encroach[ing]" or converting lands acquired through the LWCF federal-side program to a highway ROW. 54 U.S.C. §200306.</p> <p>In the DEIS, the Agencies turn the LWCF Act on its head, and claim that only the state-side program has a so-called "anti-conversion requirement." DEIS at 3-135 - 3-136 ("No [land acquired through the state-side program] may be wholly or partially converted to a use other than public outdoor recreation uses(s) without the approval of the National Park Service. These anticonversion requirements do not apply to the Federal side of the LWCF."). Under the Agencies' reading of the LWCF, the federal land management agencies (BLM, National Park Service, U.S. Forest Service, and the U.S. Fish and Wildlife Service) are free to acquire lands for wildlife habitat, outdoor recreation and other conservation uses using the LWCF federal-side program, and then permit these lands to be used for non-conservation, industrial or commercial uses. This interpretation runs headlong into the purposes of the Land and Water Conservation Fund Act, federal appropriation law, the purposes informing federal acquisition of these particular parcels, and common canons of statutory construction.</p>	Refer to responses to A.24-10, A.44-10, H.65-17, and H.65-19.
H.65-19	<p>The only court that has reviewed post-acquisition management of lands acquired using LWCF funding has held the "primary purposes for which the lands were acquired controls not just the initial acquisition of the lands, but the manner of their development post-acquisition. Gifford Pinchot Task Force v. Perez, 2014 WL 3019165, *10 (D. Ore. July 3, 2014). According to this court, "any other construction. would render the LWCF Act meaningless. " Id. at 11. In specifically rejected the Forest Service's argument that the LWCF Act placed no limitations on a federal agency's management of lands acquired using LWCF funds, the Court noted, "If [the Forest Services'] prevailed on their argument, the subsequent development of land purchased under the LWCF Act could completed undermine the Congressionally stated primary purpose for the purchase of such land, rendering it meaningless. Such an argument is unsupported." Id. at 12.</p>	<p>The judicial decision referenced in this comment represents an interpretation of LWCF, but it is not binding on the BLM here. There are distinguishable facts related to that case that are not at issue in this project. Further, that court also acknowledged that LWCF does not require that the land be used exclusively for the purposes for which it was acquired. Table 3.16-1 in the EIS shows the small amount of LWCF acreage that may be impacted by each of the ROWs considered in Alternatives 2, 3, and 4. Based, in part, on the small acreage involved, the BLM has determined that issuing a ROW over these parcels is not inconsistent with the purposes for which these lands were acquired. Refer also to responses to A.24-10, A.44-10, and H.65-17.</p>

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H.65-20	<p>When BLM acquires land using funds Congress appropriated to the LWCF, the LWCF's allowable purposes for a land acquisition become binding on the agency. See 31 U.S.C. § 1301(a) (opening statement of Chapter 31 of the U.S. Code, dealing with appropriations).</p> <p>"Appropriations shall be applied only to the objects for which the appropriations were made except as otherwise provided by law." Id. "31 U.S.C. § 1301 requires that funds be spent for the purpose for which they were appropriated by Congress." Dep't o/Soc. Servs. of State of Cal. v. Sullivan, 904 F.2d 710 (9th Cir. 1990). "Simply stated, 31 U.S.C. § 1301(a) says that public funds may be used only for the purpose for which they were appropriated." General Accounting Office, Principles of Federal Appropriations Law (3rd Ed., 2004), Vol. 1 at 4-6, available at <a href="http://www.gao.gov/assets/210/202437.pdf">http://www.gao.gov/assets/210/202437.pdf</a> (last visited August 31, 2020). Thus, BLM cannot appropriate funds for the acquisition of lands to benefit the conservation of MDT, outdoor recreation and other conservation purposes, and then develop and manage these acquired lands in a manner inconsistent with the initial purpose.</p>	<p>In reviewing the prior Appropriation Acts that authorized the acquisitions of LWCF parcels within the Reserve and/or NCA, the BLM has determined that both its purchases and planned management is consistent with the Appropriations Act because so few acres will be impacted and the larger purposes for the acquisition will continue to be met.</p> <p>Refer also to responses to A.24-10, A.44-10, H.65-17, and H.65-19.</p>

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H.65-21	<p>Because BLM failed to provide any assessment or examination of the underlying purposes of these LWCF acquisitions, the undersigned completed an independent review of the purposes behind the specific parcels subject to encroachment by UDOT's NCH alignment. This assessment shows in each case that the lands were acquired to benefit the Mojave Desert Tortoise, among other conservation purposes. For example, Parcel 8 was acquired in 2019 for \$2 million, the purpose was noted as "code 260," which means "wildlife," and in BLM's own database this parcel was acquired "for Desert Tortoise." Parcel 7 was also acquired in 2019 (for \$205,040), and BLM noted that this parcel was acquired to protect "wildlife" and, more specifically, "Desert Tortoise." Similarly, BLM acquired parcels 3 and 15 specifically for the purpose of "threatened and endangered species " (code 073).</p>	<p>In the June 2019 Determination of NEPA Adequacy for the Red Cliffs Brennan Holdings LLC NCA 2018 Acquisition, the BLM reviewed the following parcels: UTU-93279 (Parcel 9), UTU-94601 (Parcel 8), UTU-94754 (Parcel 7), and UTU-94880. In the Determination, the BLM's stated purpose for the acquisition of these lands was "the properties have been determined to be a high priority acquisition based on being contiguous to BLM administered public land and the ability to enhance opportunities to protect populations of the threatened [MDT] and its habitat by consolidating land tenure in public ownership." Further record research reveals that Parcels 8 and 9 were acquired with LWCF funds. Parcel 7 was acquired with funds from the Washington County, Utah Land Acquisition Account, which is separate from LWCF. Refer also to responses to A.24-10, A.44-10, H.65-17, and H.65-19.</p>
H.65-22	<p>BLM's acquisition of a conservation easement on Parcel 4 is, perhaps, the best example of how BLM's post-acquisition management of lands acquired using LWCF funds runs contrary to the purpose and intent of the LWCF Act. On February 7, 2002, BLM used LWCF funds to acquire from the City of St. George a conservation easement covering approximately 14.5 acres of city owned land. In the easement, both parties recognized that the property possesses open space, wildlife, natural resource and aesthetic values (collectively, 'conservation values') of great importance to [the BLM] and the general public, and are worthy or preservation." In addition, "the purpose of this Easement is to preserve and protect in perpetuity the aesthetic, open space, wildlife, and natural resource values of the Property," and the easement "confine[s] the future use of the Property by [City of St. George] to the preservation of open space, and other uses which are not inconsistent with the purposes of the Easement." The easement specifically "prohibited" the "disturbance or impairment of the open space."</p>	<p>Refer to response to H.65-17.</p>

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H.65-23	<p>BLM has arbitrarily failed to examine the direct, indirect and cumulative impacts of the proposed ROW alternatives on the purposes for which the lands were acquired. As noted above, BLM has failed to even identify and discuss the purposes informing the acquisition of these lands, forget actually examining the impacts of the NCH on these purposes. Instead, in its two-sentence analysis, see DEIS at 3-136, BLM looks only to the acreage that the NCH would "directly encroach." Id. There are two problems with this approach. First, BLM cannot limit its analysis only to direct encroachment, and, instead, BLM needs to fully consider the direct and indirect impacts of constructing the NCH, including the potential impacts on the conservation values for which the lands were acquired. As noted above, these conservation values include wildlife habitat for MDT and other wildlife, open space, and aesthetic and recreational values. BLM also cannot arbitrarily limit its analysis to only the area of direct impact. Instead, BLM needs to identify an appropriate analysis area that captures both direct and indirect impacts of the NCH. This is especially true here since elsewhere in the DEIS, the Agencies acknowledge that road construction is known to adversely impact MDT populations and habitat up to 4.6 kilometers from the edge of the roadway. DEIS at 3-35 to 3-37. Applying this broader area of impact, as illustrated below, the potential impacts of the NCH extends far beyond the immediate footprint, and NEPA requires BLM to examines these impacts.</p>	<p>The warranty deeds for each parcel referenced the BLM's authority under FLPMA for the acquisition and management of the lands. In reviewing agency records, the primary purposes for acquisition were land tenure consolidation and wildlife habitat. The warranty deeds for each parcel only referenced the BLM's authority under FLPMA for the acquisition and management of the lands. Nothing in FLPMA or the LWCF Act requires a separate or independent assessment of, or compensation for, indirect impacts to LWCF-acquired parcels for either the State or Federal acquisitions when adjacent lands are developed. However, the potential indirect impacts to the wildlife habitat, visual resources, recreation, and other conservation values that would occur on LWCF-acquired lands surrounding the alternative ROW alignments is documented in the applicable sections for these resources in Chapter 3. No impacts to land tenure consolidation would occur because the underlying land ownership will not change. Refer also to response to H.65-17.</p>
14800-2	<p>Monies from the federal Land and Water Conservation Fund &lt;<a href="https://www.doi.gov/lwcf">https://www.doi.gov/lwcf</a>&gt; (LWCF) were used to purchase land near the proposed highway as recently as December of 2019. "\$7 million payment for two parcels of land now slated to be paved over with a highway in addition to the conservation easements purchased with LWCF money." This goes against the fundamental core of the LWCF. The Land and Water Conservation Fund program "supports the protection of federal public lands and waters including national parks, forests, wildlife refuges, and recreation areas."</p>	<p>Refer to responses to A.24-10, A.44-10, H.65-17, and H.65-19.</p>

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15190-1	By scrutinizing the map of land parcels within the Red Cliffs NCA and tracking the purchase dates and funds used to acquire private in-holdings, CSU discovered that monies from the federal Land and Water Conservation Fund < <a href="https://www.doi.gov/lwcf">https://www.doi.gov/lwcf</a> > (LWCF) were used to purchase land near the proposed highway as recently as December of 2019. The DEIS for the Northern Corridor Highway did not disclose that parcels purchased by the Land and Water Conservation Fund would be involved with the route that the BLM and Washington County government prefer.	Refer to responses to A.24-10, A.44-10, H.65-17, and H.65-19.
A.25-17	LWCF funds are for recreation and not a slush fund for roads. Although it might be argued that the highway provides “recreation” access it at the same times takes land that is already used for recreation or impacts recreation lands by adding unnecessary noise, vehicle emissions, etc.	Comment noted. Refer to responses to A.24-10, A.44-10, H.65-17, and H.65-19.
A.25-52	Given that [LWCF] funds were used to secure property within Red Cliffs NCA/Reserve, it seems inappropriate at best to be using any of that land for a highway ROW within the NCA/Reserve. The LWCD Program details above focus strictly on recreation, and converting that land to a highway does not appear to fit that purpose.	Refer to responses to A.24-10, A.44-10, H.65-17, and H.65-19.
A.28-9	Lands purchased with LWCF money must be managed for recreation or conservation. Utah has received roughly \$197.9 million in LWCF funding over the past five decades, including to protect the aesthetic, open space, recreational, and wildlife habitat values within the Red Cliffs NCA. All subsequent use of lands acquired through LWCF must be compatible with the purposes for which the lands were acquired, and lands and interests in lands acquired through LWCF must perpetually remain in federal ownership. The Northern Corridor is an incompatible use for this area. Again, selecting the Northern Corridor as the preferred alternative is going to be very difficult to defend.	Comment noted. Refer to responses to A.24-10, A.44-10, H.65-17, and H.65-19.
A.51-78	53 3-189 3.28.1.15 Text: “No reasonably foreseeable actions identified in Table 3.28-1 would affect State LWCF lands within the analysis area.” Comment: The statement given above with regards to cumulative effects to Land and Water Conservation Fund Act Lands (LWCF) seems naïve and misleading given that ALL private lands outside the Reserve and Zone 6 would be open to development and loss of biological resources throughout Washington County as the result of reissuing the ITP, particularly if the Lake Powell Pipeline (which IS listed in Table 3.28-1) is developed: First,	The only parcel of State LWCF lands affected by the ROW is Pioneer Park, under Alternative 5, and no reasonably foreseeable actions identified in Table 3.28-2 would cumulatively affect this parcel. While the Permit Area for the ITP includes much of Washington County, the HCP clarifies that covered activities could only occur on non-Federal lands and, among other requirements, “must be otherwise lawful and conducted in accordance with all applicable local, state, and federal laws, regulations,

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	<p>State LWCF lands mapped in Map 3.16-1 are only a fraction of the LWCF lands identified in the same map, failing to depict federal LWCF lands, so why are only State lands being referenced? Why not Federal lands as well? Secondly, it is our understanding that the “analysis area” is not restricted to the Red Cliffs Desert Reserve, as shown in Map 3.16-1, but that it includes all of Washington County. The full extent of State and Federal LWCF lands need to be mapped within the entire county for the deficiencies characterizing this section to be remedied. Finally, this discussion, which is currently limited to only direct effects of the action alternatives on LWCF lands, should be expanded to discuss the indirect and fragmenting effects to all State and Federal LWCF lands identified elsewhere in the DEIS.</p>	<p>ordinances, and permissions.” Development on any specific lands that would be covered by the ITP is speculative at this time and any future proposals would need to ensure full compliance with the LWCF Act provisions.</p> <p>The LWCF Act includes the following provision for the State grants: “No property acquired or developed with assistance under this section shall, without the approval of the Secretary, be converted to other than public outdoor recreation uses. The Secretary shall approve such conversion only if he finds it to be in accord with the then existing comprehensive statewide outdoor recreation plan and only upon such conditions as he deems necessary to assure the substitution of other recreation properties of at least equal fair market value and of reasonably equivalent usefulness and location (Sec. 6 [16 USC 4601-8] (e) (3)).”</p> <p>The LWCF Act does not require assessment of, or compensation for, indirect impacts to LWCF-acquired parcels for either the State or Federal acquisitions when adjacent lands are developed. However, the indirect impacts related to the purposes for which the lands in the analysis area were acquired, including wildlife habitat, are documented in Chapter 3. No impacts to land tenure consolidation would occur because the underlying land ownership will not change.</p>

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A.51-86	<p>61 B-8/B-178/3-189 3.28.1.15/2.4-1/3.16-1 Comment: With regards to the statement on page 3-189 of Volume 2 that State LWCF lands would not be affected by reissuance of the ITP, the DEIS limits its mapping to State LWCF lands within the Reserve, as mapped in Map 3.16-1. Map 2.4-1 on page B-8 is already rather busy, so we ask that a new map be added to Appendix B that shows the full extent of State and Federal LWCF lands within the analysis area boundary shown in Map 2.4-1, and that the Cumulative Effects analysis given on page 3-189 relative to LWCF be expanded to address all LWCF lands in the County, not just those in the Reserve.</p>	<p>The analysis area used for the LWCF analysis is consistent with the Northern Corridor ROW. For these reasons, a new map reflecting all Federal and State LWCF lands within the County, NCA, or Reserve in their entirety has not been included. Map 3.16-1 reflects both Federal LWCF (54 U.S.C. 200306) and State LWCF (54 U.S.C. 200305) within the Northern Corridor ROWs, which is consistent with the analysis area. Additional Federal LWCF lands, which are outside the analysis area, are also shown within the perspective of the map. Based on the analysis area, and the best available information related to reasonably foreseeable projects in Table 3.28-2, the cumulative impacts as disclosed in the EIS are deemed sufficient and have not been revised.</p>

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H.65-221	<p><b>3.16.1 Affected Environment</b>                      The LWCF Act of 1965 established a funding source assisting states and Federal agencies to meet present and future outdoor recreation demands and needs. Section 6(f)(3), as codified in 36 CFR 59.3, is the cornerstone of Federal efforts that ensure Federal investments in LWCF assistance are being maintained for public outdoor recreation use. The LWCF has a Federal agency component and a State and local government component, which have different uses and requirements. For Federal land management agencies such as the BLM, the LWCF may be used to purchase private in-holdings to meet resource management objectives. For State and local governments, Federal assistance from the LWCF is allocated to a state for the planning, acquisition, and development of needed land and water public outdoor recreation projects. Once land has been purchased or developed (partially or entirely) with LWCF assistance from the State side of the LWCF program, it is considered a Section 6(f) property. "No Section 6(f) property may be wholly or partially converted to a use other than public outdoor recreation use(s) without the approval of the National Park Service. These anti-conversion requirements do not apply to the Federal side of the LWCF" (DEIS at 3-135). DEIS at 3-135).</p> <p>Issue:                      1. This statement seems to be incompletely stated. The law states that only stateside lands may be converted to non-recreational uses; Federal LWCF lands cannot be converted under any circumstance. The BLM seems to have an incorrect understanding of the law. Note the reference to conversion in the state-side law (54 U.S. Code § 200305(£)(3)) does not apply to the federal side (54 U.S. Code § 200306).</p>	<p>Lands acquired through Federal LWCF appropriations are administered and managed by the Federal land management agency recipient in accordance with the purposes and subpurposes described in 54 U.S.C. 200306. In that regard, the BLM manages lands within the NCA, including those acquired through LWCF, in keeping with the Red Cliffs NCA RMP and in accordance with Federal appropriations laws. Refer also to responses to A.24-10, A.44-10, H.65-17, and H.65-19.</p>
H.65-222	<p>Within the Northern Corridor analysis area, Pioneer Park is the only State LWCF/Section 6(f) property (Map 3.16-1 ). On Red Hills Parkway just north of downtown St. George, the City of St. George developed the park-proposing a picnic shelter, amphitheater, and parking lot-using a 1989 LWCF grant award. "In addition, within the Northern Corridor analysis area, approximately 69 acres of private in-holdings have been previously acquired by the BLM using LWCF" (DEIS at 3-136).</p> <p>Issue:                      2. This is the land that may not be converted under any circumstance. The ROW through these lands is prohibited, making the granting of the Northern Corridor illegal. See reference in comment 1 above.</p>	<p>Refer to responses to A.24-10, A.44-10, H.65-17, and H.65-19.</p>

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H.65-223	<p>3.16.2 Environmental Consequences 3.16.2. I Analysis Methods and Assumptions</p> <p>The State and Federal sides of the LWCF program have different impact indicators. A primary indicator for both is direct encroachment on a parcel. However, with the State side of the program, additional indicators of impacts include if the parcel defined as a Section 6(f) property-the boundaries of which are detailed in the grant application-would be wholly or partially converted to a non-conforming use. This includes if construction would terminate the public outdoor recreation use, convey a property interest for a private or non-public outdoor recreational use, or result in the loss of recreational viability of the remaining property if a partial conversion occurs. The following assumptions apply to this analysis:</p> <ul style="list-style-type: none"> <li>• If a State LWCF/Section 6(t) property is wholly or partially converted to a non-public outdoor recreational use, land of equal value, location, and usefulness would be identified for mitigation in accordance with 36 CFR 59.</li> <li>• Reasonable in-kind mitigation can be identified if a conversion of use to a State LWCF/Section 6(t) property occurs.</li> <li>• "Federal LWCF lands impacted would not require mitigation" (DEIS at 3-136).</li> </ul> <p>Issue: 3. This assumption is invalid: mitigation does not apply since the State LWCF /section 6(t) condition does not apply to Federal LCWF lands; they may not be converted.</p>	Refer to responses to A.24-10, A.44-10, H.65-17, and H.65-19.

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H.65-224	<p>3.16.2.4 Direct and Indirect Impacts from Alternative 5                      "Alternative 5 would have no impacts to Federal LWCF lands. As shown on Map 3.16-1, construction of the Red Hills Parkway Expressway would require ROW acquisition on approximately 0.9 acre of Pioneer Park, as defined in the State's original LWCF grant application" (DEIS at 3-136). This would constitute a conversion of use. The acquisition would occur directly adjacent to the existing Red Hills Parkway, and would encroach on areas not actively used for recreation. None of the outdoor recreation facilities would be affected; however, ingress and egress points to the park may require reconfiguration to facilitate the expressway and ROW requirements (see Section 3.15 for further details). For this reason, while a partial conversion of use would occur, the recreational value of Pioneer Park itself would not be terminated or diminished. "If this alternative is selected, mitigation in-kind for the 0.9-acre conversion would be required and is dependent on approval from the National Park Service" (DEIS at 3-137).                      Issue:                      4. This estimated impact appears to be minor and it is based on an assumption of a specific design of this area of alternative 5 implementation. Design options should be considered under conditions of public engagement in order to minimize or eliminate this impact.</p>	<p>Alternative and design preferences are noted by the BLM. The design at this time has been developed in conjunction with a draft POD to inform the environmental analyses, assist the BLM in its decision-making, and support the comparison and evaluation of impacts of the alternatives. Final roadway design would be determined by the applicant during the final design phase of the Northern Corridor highway if an action alternative is selected after the conclusion of the NEPA process and would incorporate site-specific mitigation where appropriate.</p>
H.65-225	<p>3.16.2.3 Direct and Indirect Impacts from Alternatives 2, 3, and 4-Alternatives 2, 3, and 4 would not wholly or partially convert any State LWCF/Section 6(t) properties to non-recreational use. "However, construction of the Northern Corridor would directly encroach on a number of parcels the BLM had previously used LWCF to acquire and incorporate into the NCA" (DEIS at 3-136). Table 3.16-1 summarizes, and Map 3.16-1 displays these impacts.                      Issue:                      5. This encroachment is illegal. See reference in comment I above.</p>	<p>Refer to response to A.24-10, A.44-10, H.65-17, and H.65-19.</p>
H.65-226	<p>In forcing the NCH through Red Cliffs NCA (including multiple parcels acquired with LWCF funds), Mr. Pendley and the Bureau of Land Management are undermining the intent of the 2009 Omnibus Public Land Management Act, the 1965 Land and Water Conservation Fund Act, the Great American Outdoors Act, and the Endangered Species Act.</p>	<p>As outlined in Section 1.1 of the EIS, the BLM is considering several alternative northern transportation routes as part of the EIS in response to the UDOT ROW application. In addition to analyzing the potential impacts of the proposed ROW, the BLM is using the NEPA process to evaluate if the ROW application is consistent with the statutory purposes of the Red Cliffs NCA and whether it is necessary to</p>

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		<p>amend the Red Cliffs NCA RMP to accommodate a ROW or deny UDOT's application. Section 1977 of OPLMA contains the following text: "In developing the travel management plan, the Secretary shall— (A) in consultation with appropriate Federal agencies, State, tribal, and local governmental entities (including the County and St. George City, Utah), and the public, identify 1 or more alternatives for a northern transportation route in the County." If a ROW is granted and the RMP is also amended, BLM will then be able to fully consider that ROW as a specific northern transportation route (i.e., a Northern Corridor) as part of a future travel management planning process as Congress has instructed in Section 1977 of OPLMA.</p> <p>Regarding compliance with the LWCF Act, refer to response to A.24-10, A.44-10, H.65-17, and H.65-19.</p> <p>The Great American Outdoors Act (Public Law 116-152) established a permanent fund for the LWCF and did not change the original intent or purpose of funding.</p> <p>Compliance with the ESA is being considered through Section 7 consultation, as described throughout the EIS (refer to Sections 3.5 and 4.2.1 of the EIS), and through USFWS' development of findings regarding the County's Amended HCP and request for an ITP.</p>

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H.65-297	<p>Land tenure adjustments and land use authorizations would offset some of the loss from Federal LWCF impacts by incorporating private in-holdings into the NCA. No reasonably foreseeable actions identified in Table 3.28-1 would affect State LWCF lands within the analysis area.</p> <p>Issue 17. Two key points are not addressed: Federal LWCF are not allowed to be impacted, therefore these private in-holding offsets cannot be considered, and, if they were, they are more likely to be developed if any alternatives 2-4 are selected.</p>	Refer to responses to A.24-10, A.44-10, H.65-17, and H.65-19. Note: Table 3.28-1 in the Draft EIS is Table 3.28-2 in the Final EIS.
H.65-584	I. The DEIS must include analysis of the full breadth of all land acquisitions within the Desert Reserve since 1996, and the legality of routing the NCH through land acquired with LWCF or Section 6 Funds. Addressed in DEIS: No	Refer to responses to A.24-10, A.44-10, H.65-17, and H.65-19.

**0.3.19 Livestock Grazing**

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A.51-72	<p>48 3-150 3-152 3.21 Comment: We find that, in the absence of grazing history, the actual benefits implied in Section 3.21 on grazing are not obvious. Whereas we believe that eliminating grazing from areas managed for tortoise conservation are ultimately beneficial, we cannot ascertain the actual, immediate benefit in the absence of use data. Therefore, we ask that BLM supplement this discussion in the Final EIS to show how recently these allotments have been grazed, and to what extent relative to allowable versus actual AUM data. How many ranchers would be affected by retiring these allotments? What have BLM range health assessments of these allotments (if any) revealed as they pertain to relative habitat quality to tortoises?</p>	<p>As stated in Sections 3.21.2.3 to 3.21.2.4 of the EIS, although the River Pasture does not have a specific animal unit month designation as part of the Curly Hollow Allotment’s rotation system, this pasture is infrequently used because of a lack of desirable species and recreation pressure. Therefore, because this pasture is not currently used it is anticipated any grazing that could occur in this area of the River Pasture on proposed Reserve Zone 6 would be accommodated elsewhere in the Curly Hollow Allotment under Alternatives 2 through 4.</p> <p>The Final EIS has been revised to clarify the actual use of the Box Canyon Allotment and the Holding Pasture as compared to its animal unit months. As stated in the Final EIS, despite the animal unit month designations that apply, no grazing has occurred on the Box Canyon Allotment since 1988 and no grazing has occurred on the Curly Hollow Pasture since 2002.</p> <p>There is one permit holder each on the Box Canyon Allotment and on the Holding Pasture. BLM Rangeland Health Assessments for both the Box Canyon Allotment and the Holding Pasture in 2002 and 2012 indicate that rangeland health met BLM standards, and with implementation of the Allotment Management Plan, livestock grazing was unlikely to adversely affect Mojave desert tortoise.</p>
A.51-73	<p>49 3-150 3-152 3.21 Text: “...unavailable for livestock grazing.” Comment: What exactly does the above, repetitively-used clause mean? Does this mean that the allotments would be retired and permanently “removed from the books?” Please explain the administrative action and its temporal ramifications in the Final EIS; e.g., does this mean “in perpetuity,” with no ability of BLM to reestablish the allotments at a later date, under a future RMP revision?</p>	<p>As stated in 43 CFR 4130.2(a), lands available for livestock grazing on BLM-administered lands are designated in land use plans. Pursuant to the BLM Land Use Planning Handbook (H-1601-1), decisions that identify lands that are available or unavailable for livestock grazing may be revisited through the amendment or revision process. Accordingly, under SGFO RMP Amendment Alternatives B and C, the grazing allotments described in the EIS would be made unavailable for livestock grazing pursuant to the proposed RMP amendment. No grazing permits would be issued for these lands, and existing grazing permits would be amended in accordance with the applicable SGFO RMP amendment. The BLM could amend its RMP to reestablish the allotments under a future RMP revision in accordance with 43 CFR 4130.2(a) and the BLM Land Use Planning Handbook.</p>

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H.65-589	<p>3- Grazing Permit Management: plans for management of existing grazing permits on BLM lands in Zone 6, including Box Canyon Allotment, Curly Hollow Allotment Holding Pasture, and Curly Hollow Allotment River Pasture. Addressed in the DEIS: Yes.</p>	<p>Comment noted.</p>
H.65-587	<p>1- Any livestock grazing in proposed mitigation areas should be analyzed for impacts to desert tortoise, and permit retirement strongly considered. Addressed in the DEIS: Not adequately. SGFO Amendment Alternative B proposes to end grazing on BLM lands in the proposed Zone 6, but the DEIS failed to analyze the impacts of grazing on vegetation communities, soil, and wildlife.</p>	<p>The EIS evaluates and describes the potential impacts of grazing on vegetative communities, soil, general wildlife, and special status wildlife as a result of SGFO RMP Amendments A, B, and C in Section 3.2.2 of the EIS. In addition, as described in Section 3.4.2, eliminating grazing pursuant to SGFO RMP Amendment B would benefit general wildlife species because it would close proposed Zone 6 to livestock grazing, as well as other ground-disturbing activities. However, under SGFO RMP Amendment C, some livestock grazing would be permitted to continue in proposed Zone 6; therefore, SGFO RMP Amendment B would provide more protective conservation measures for general wildlife species, as opposed to SGFO RMP Amendment C. The potential impacts to Mojave desert tortoise are also described in Section 3.5.2.</p>
H.65-590	<p>4- Fencing Plans: Plans for fencing if grazing is permitted to continue in Zone 6. Will BLM fence the allotments after removing and translocating tortoises? Will USFWS acknowledge that livestock grazing is an identified threat to the conservation and recovery of tortoises in the original and updated USFWS MDT recovery plans? If so, on what logical basis could USFWS continue to approve livestock grazing in tortoise habitat, whether under a revised HCP or one or more Biological Opinions pursuant to ESA Section 7 consultations? If livestock grazing is prohibited on BLM tortoise habitats in Clark County Nevada (with allotments unavailable for grazing and permits bought out), why is this grazing still permissible on BLM tortoise habitats across the biologically arbitrary state line in Washington County Utah?</p>	<p>The boundaries of the allotments and pastures within proposed Reserve Zone 6 currently has range fencing. As stated in Sections 3.21.2.3 to 3.21.2.4 of the EIS, “range fencing delineating pasture and allotment boundaries could be removed” under SGFO RMP Amendment Alternatives B and C. The decision of whether to remove fencing is an implementation-level decision related to allotment management, not a planning-level decision considered in this EIS. This decision regarding removal of fencing lies with the BLM and would be decided in the future in the event SGFO RMP Amendment Alternative B or C is selected. No livestock grazing occurs within the current boundaries of the Reserve, nor the Red Cliffs NCA. The Red Cliffs NCA RMP made the Red Cliffs NCA unavailable for livestock grazing, in part to protect Mojave desert tortoise. Similarly, the SGFO RMP Amendment Alternatives B and C also propose to reduce or eliminate livestock grazing on BLM-administered lands within Zone 6. The preparation of the USFWS Mojave desert tortoise recovery plans and BLM management of lands outside of the Red Cliffs NCA and proposed Reserve Zone 6 are outside of the scope of analysis for this EIS. The BLM</p>

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	<p>Addressed in the DEIS: Not adequately. The DEIS states that current existing fencing for the allotment and pasture boundaries within proposed Zone 6 could be removed after the amendment, but does not say that it would be removed. The DEIS also fails to discuss the impacts of rangeland fences to MDT in Zone 6. The DEIS also fails to adequately discuss how grazing would be ended on SITLA lands in the proposed Zone 6.</p>	<p>makes decisions regarding the issuance of livestock grazing permits based on the analysis that supports those permit decisions, including range conditions and observed impacts on the allotments. Comparisons between management of allotments in different areas can be misleading, because each allotment has unique topography, vegetation, and other resources. The BLM consults with the USFWS on the issuance of livestock grazing permits and adjusts its permits as needed based upon USFWS recommendations. Livestock grazing permits are issued by the BLM, not the USFWS.</p> <p>As stated in Section 3.21.2.3 of the EIS, “SITLA lands within proposed Zone 6 that are managed as part of the livestock grazing allotment and are available for use by the Permittee. These lands would not be made unavailable by the SGFO RMP Amendment but would be made unavailable by the BLM if they are brought into Federal ownership in the future. The SITLA lands are accessed through adjacent BLM-administered lands that would be made unavailable by these alternatives, and therefore would be unlikely to be used for livestock grazing after the amendment.”</p>
H.65-591	<p>5- Grazing Allotments Purchase Plans: Plans for buying out grazing allotments if sellers are willing.</p> <p>Addressed in the DEIS: Not adequately addressed. The DEIS simply says that Washington County would attempt to work with willing sellers.</p>	<p>As stated in the EIS, if Alternatives 2 through 4 were selected, which would make portions or all of proposed Zone 6 unavailable to livestock grazing, Washington County and HCP Partners would coordinate with the holders of active grazing permits within proposed Zone 6 and attempt to negotiate the acquisition of such grazing permits or portions thereof from willing sellers. Successful acquisition of the livestock grazing permits is not required for the BLM to make the lands unavailable for livestock grazing.</p>
H.65-592	<p>6- Grazing Impacts: Analysis of grazing impacts on vegetation needed by the tortoise for shelter and food. Addressed in the DEIS: No.</p>	<p>Refer to response to H.65-587. As stated in Section 3.5.2 of the EIS, Alternative B of the SGFO RMP Amendment would eliminate livestock grazing on BLM-administered lands in proposed Zone 6, which would remove the potential for adverse impacts to Mojave desert tortoise habitat as a result of livestock grazing. In contrast, as stated, “Alternative C has a higher likelihood than Alternative B to result in adverse impacts to Mojave desert tortoise, particularly by allowing grazing and recreational activities that would degrade habitat.” Alternative A (the No Action Alternative for the SGFO RMP Amendment) would permit livestock grazing to continue, which could result in potential adverse impacts to Mojave desert tortoise habitat.</p>

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H.65-593	7- Grazing Impacts on Invasive Species: Analysis of grazing impacts on the spread of invasive brome grasses in tortoise habitat. Addressed in the DEIS: No.	Refer to response to H.65-587. As stated in Section 3.2.2 of the EIS, livestock grazing has the potential to spread exotic invasive species and cause direct impacts to native vegetation.
H.65-588	2- Impacts to Native Vegetation Communities: The DEIS must address NCH impacts related to fire, fuels, noxious and invasive weeds and grazing. Addressed in the DEIS: Not adequately. See above	The impacts to fire and fuels management as a result of construction of the Northern Corridor are discussed in Section 3.22.2 of the EIS. The impacts to vegetative communities, including noxious weeds and invasive species, as a result of construction of the Northern Corridor are discussed in Section 3.2.2 of the EIS. Refer to response to H.65-587. As stated in Section 3.21 of the EIS, no active grazing allotments are within the Red Cliffs NCA. The potential issuance of a ROW for the Northern Corridor and Red Cliffs NCA RMP Amendments would not impact livestock grazing.

**0.3.20 National Conservation Area**

Letter #- Comment # or Public Concern Statement #	Comment	Response
NCA-01	<p>The construction of a highway across the Red Cliffs NCA would cause adverse impacts to and set a precedent for the future management of the Red Cliffs NCA, its values, and other National Conservation Lands. The adverse impacts on resources within the Red Cliffs NCA from amending the Red Cliffs NCA RMP and granting a right-of-way for the Northern Corridor are inconsistent with the Congressionally defined purposes and management direction for the NCA. Granting a ROW in a BLM-administered NCA is also not consistent with the BLM's policy that to the greatest extent possible, subject to applicable law, through land use planning and project-level processes and decisions, the BLM should avoid siting ROWs in NCAs. Approving the Northern Corridor and amending the RMP would set a precedence for development in other protected areas. Therefore, the BLM should not grant a right-of-way for Northern Corridor across the Red Cliffs NCA, or amend the RMP, as there are other alternative routes located outside of its boundaries.</p>	<p>The BLM decision maker will consider the BLM's decisions to be made using the analysis contained in the EIS in accordance with FLPMA, OPLMA, and relevant BLM policies and manuals. As outlined in BLM Manual 6220, the BLM decision maker will evaluate discretionary uses within a NCA through the NEPA process, and will analyze whether the impacts of the proposed use in the NCA are consistent with the protection of the area's objects and values after application of all appropriate conservation and mitigation measures. As part of this analysis, the decision maker will consider the severity, duration, timing, and direct, indirect, and cumulative effects of the project on the objects and values, including resources such as Mojave desert tortoise and visual resources. If the BLM decision maker selects a Northern Corridor alternative that would cross the NCA and determines that an associated amendment to the RMP is warranted, the BLM ROD would indicate how the actions approved by the BLM are consistent with the designating legislation.</p>

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NCA-02	If the BLM were to approve a Northern Corridor route through the Red Cliffs NCA, the BLM should not approve an alternative that would allow additional rights-of-way or other developments to be authorized in the Red Cliffs NCA.	The BLM developed two different plan amendment approaches, which are included in the EIS, to modify the RMP. Red Cliffs NCA RMP Amendment Alternative B would use a one-time exemption to authorize the Northern Corridor and would not modify the existing restrictions on approvals of new ROWs within the Red Cliffs NCA. Red Cliffs NCA RMP Amendment Alternative C would designate a new ROW corridor and would modify the existing provisions for issuing new ROWs in the existing Red Cliffs NCA RMP. If the BLM decision maker selects a Northern Corridor alternative that would cross the NCA and determines that an associated amendment to the RMP is warranted, the BLM ROD would indicate how the actions approved by the BLM are consistent with the designating legislation.
NCA-03	The additional protections for Zone 6 would not adequately offset impacts from the construction of a highway across the Red Cliffs NCA. Specifically, Zone 6 is physically separated from the remaining portions of the Red Cliffs Desert Reserve, comprised of lands already protected (Red Bluff ACEC) and lands that cannot be permanently protected (SITLA), and has inferior scenic and habitat quality compared to the NCA. Many uses that are incompatible with recovery of threatened species could be allowed to continue, including OHV travel, target shooting, and competitive mountain bike races.	While the actions described in the EIS within proposed Reserve Zone 6 would provide benefits to many of the same resources that would be impacted by potential construction of the Northern Corridor across the Red Cliffs NCA (e.g., Mojave desert tortoise), these actions are not intended as, and should not be implied to be, mitigation of the potential impacts on the objects and values of the Red Cliffs NCA. Additional Northern Corridor design features and mitigation measures have been identified in the Final EIS to protect and conserve the NCA's values, including the addition of opportunities to enhance NCA's educational values. If the BLM selects a Northern Corridor alternative route that would cross the Red Cliffs NCA, the BLM's ROD would define terms and conditions and notice to proceed requirements, and would outline how after

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		<p>application of all mitigation measures the BLM's selected Northern Corridor alternative and potential associated plan amendments would be consistent with the management requirements for the NCA established in OPLMA.</p> <p>As described throughout the EIS and Amended HCP, SITLA lands within proposed Reserve Zone 6 are anticipated to be permanently protected through long-term acquisition, and management of these lands by the BLM or another conservation entity should an alternative that establishes Zone 6 be selected by the BLM and USFWS. While some lands within proposed Reserve Zone 6 currently are managed to protect relevant and important values within the Red Bluff ACEC, management changes implemented in association with the establishment of proposed Reserve Zone 6 would reduce existing resource conflicts and provide conservation benefit for some resources present.</p>
Form 2-1	<p>I oppose building the Northern Corridor highway through land protected by the Red Cliffs Desert Reserve or National Conservation Area. Research shows that adding more highway capacity may provide only short-term relief of traffic congestion; meanwhile, moving forward with this project would pose additional risk to the already vulnerable Mojave desert tortoise. I urge the Bureau of Land Management not to issue permits for the Northern Corridor, or to choose a route that does not encroach on protected land.</p>	<p>Alternative preference noted. Analysis associated with traffic concerns are located in Section 3.26 of the EIS. Analysis associated with potential impacts on Mojave desert tortoise are located in Section 3.5 of the EIS.</p>
A.24-12	<p>12) The NCH DEIS analysis improperly treats the RCNCA statutory purposes as comparable to other non-RCNCA issues or resources, and fails to explain how the NCH alternatives would benefit or be consistent with those RCNCA statutory purposes as required by OPLMA.</p> <p>The NCH DEIS analysis improperly lumps many of the RCNCA's statutory purposes in with other non-RCNCA related issues and resources. In scoping comments, I and others asked how the NCH alternatives would serve or be consistent with the RCNCA's statutory purposes. These requests were ignored. This is especially egregious for the Mojave desert tortoise because the NCH</p>	<p>The BLM included an analysis of impacts on the Red Cliffs NCA's objects and values, which are the purposes Congress identified in OPLMA as further clarified in the Red Cliffs NCA RMP in Section 3.18 of the EIS. The BLM has revised the analysis of potential impacts on the Red Cliffs NCA contained in Section 3.18 of the Final EIS based on the inclusion of additional design features and mitigation</p>

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	<p>DEIS acknowledges many significant adverse impacts from the NCH Alternatives 2, 3, and 4 to tortoises but the RCNCA statutory purpose of tortoise conservation is not reconciled with these impacts in the RCNCA related analysis. This is a fundamental disconnect. The NCH DEIS admits significant NCH harm to tortoises in the RCNCA and that tortoise conservation is a RCNCA purpose. But it does not explain how the NCH Alternatives 2,3, and 4 would not violate the RCNCA tortoise conservation purpose.</p>	<p>measures for the Northern Corridor that will avoid, minimize, and mitigate impacts on the NCA’s objects and values. However, the comment misrepresents the BLM’s policy as outlined in BLM Manual 6220, the guidance provided by Congress in OPLMA, and incorrectly suggests a requirement for the analysis contained in the EIS to draw conclusions regarding the how the NCH alternatives would benefit or be consistent with the purposes of the NCA established in OPLMA. BLM’s Manual 6220 directs the BLM to “Through the NEPA process... evaluate discretionary uses and will analyze whether the impacts of the proposed use in the Monument or NCA or similarly designated area are consistent with the protection of the area’s objects and values. As part of this analysis, the manager will consider the severity, duration, timing, and direct and indirect and cumulative effects of the proposed use.” And “When approving a proposed action, the decision must document how the activity is consistent with the proclamation or designating legislation.” The manual makes it clear that BLM’s requirements are to analyze the impacts in the NEPA document and document the BLM decision maker’s consistency determination in the appropriate decision document. The standard established by Congress in OPLMA for the BLM to approve uses within the Red Cliffs NCA is described in OPLMA Section 1974 (e)(2), which states “The Secretary shall only allow uses of the National Conservation Area that the Secretary determines would further a purpose described in subsection (a).”</p>

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H.65-36	<p>The DEIS analysis improperly treats the NCA statutory purposes as comparable to other non-NCA issues or resources, and fails to explain how the NCH alternatives would benefit or be consistent with those NCA statutory purposes as required by OPLMA.</p> <p>The DEIS analysis generally lumps many of the NCA's statutory purposes in with other non-NCA related issues and resources. The scoping comments asking for how the NCH alternatives would serve or be consistent with the NCA's statutory purposes were ignored. This seems especially egregious for the Mojave desert tortoise because the DEIS acknowledges many significant adverse impacts from the NCH Alternatives. See DEIS comments at Section 3.5 Special Status Wildlife.</p> <p>The NCA purpose of tortoise conservation is not reconciled with these impacts in the NCA related analysis. This is a fundamental disconnect. Since the DEIS admits significant NCH harm to tortoises in the NCA, and says that tortoise conservation is a NCA purpose, how can BLM properly infer that the NCH alternatives are consistent with that NCA purpose with no exculpatory explanation?</p>	Refer to response to A.24-12.
H.65-24	BLM's own policy requires it to site the NCH ROW outside of the Red Cliffs NCA to protect its resource values and objects, and BLM's own manual "directs the BLM to analyze the impacts on the NCA's objects and values to determine consistency of a proposed ROW with the NCA's objects and values, and directs the BLM to consider protection of the objects and values in the NEPA analysis."	Refer to response to NCA-01 and A.24-12.
A.30-5	<p>Vol 1, Exec Summary; Pg 1 of cover letter; Para. 2; Line 3</p> <p>It is my understanding that the utility and ROW protocols of the previously NCA allowed for ROW requests and approvals for utilities and transportation contrary to the statement in the EIS, "Because the issuance of a right-of-way would not be in conformance with the existing Red Cliffs NCA RMP, the BLM is also considering potential amendments to the Red Cliffs NCA RMP necessary to approve the right-of-way."</p>	The comment appears to confuse the BLM's Red Cliffs NCA RMP with Washington County's 1995 HCP and associated documents. The BLM's Red Cliffs NCA RMP was finalized in 2016 and guides the management of all BLM-administered lands within the Red Cliffs NCA. Additional information regarding the potential need for BLM to amend the Red Cliffs NCA RMP if the BLM selects a Northern Corridor alternative that would cross the NCA is contained in Sections 1.3.1 and 2.3 of the EIS.

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H.65-41	<p>In the DEIS, BLM proposed to provide a "one-time exception" to the limitation on rights-of-ways in "avoidance areas" in the Red Cliffs NCA without any analysis, discussion or explanation of how this decision adheres to the "conserve, protect, and enhance" standard in OPLMA. In the Red Cliffs NCA, all "[l]and tenure adjustments are made to assist the conservation, protection, and enhancement of NCA resource values, facilitate management, and reduce administrative costs," and all land use authorizations must "further the purposes of conservation, protection, and enhancement of resource values in the NCA." Red Cliffs NCA ROD at 64.</p> <p>On the contrary, the DEIS conservatively estimates that the NCH ROW would cause the take of 20 threatened MDT and indirectly impact 185 more; destroy 287 acres and adversely impact at least 2,652 acres of designated critical habitat; and cause adverse effects to 8 National Register of Historic Places-eligible cultural and historic properties. Additionally, the size of the ROW at 287 acres is 267 acres larger than Criteria E allows. DEIS at 3-59, 3-62, and 3-119.</p>	<p>Refer to responses to NCA-01 and A.24-12. The action before the BLM is the potential issuance of a ROW for the Northern Corridor. The BLM would retain the title to all lands, therefore the issuance of a ROW to a third-party (UDOT) would not be a change in land tenure. Additionally, ROWs issued by the BLM are not recorded in the Control Document Indexes, only in the Master Title Plats.</p>
A.51-67	<p>Comment: Although we recognize that Table 3.18-1 would function to divert the reader to 11 other sections addressing NCA Objects and Values, we find that Section 3.18 fails in its consistency with both previous and subsequent sections to make clear and factual statements as to the Environmental Consequences associated with each action alternative (excepting Alternatives 1 and 6) relative to governing laws and agreements. It is clear to us by the information presented relative to the OPLMA ("Act;" page 3-141) and prescriptions given in BLM Manual 6260 ("Manual") as they relate to NCAs (pages 3-141 and 3-142), that all action alternatives (2, 3, 4, and 5) would violate the intent and function of the Act and Manual by developing the Northern Corridor. We contend that although BLM can alter its RMPs to approve any of the Northern Corridor alternatives, they cannot change either the OPLMA or management criteria for NCAs, and that both are violated by all action alternatives (excluding 1 and 6), and that recommended changes to the RMP do not elevate any of the action items to mitigate impacts to either the Act's or Manual's intent. We contend that Section 3.18 needs to describe each of the six alternatives as they relate to the OPLMA and BLM Manual 6260 rather than redirect the reader to 11 other sections that do not directly address either the Act or the Manual.</p>	<p>Refer to response to A.24-12.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-557	<p>1. Impacts to the volunteer site steward program and the stewards who currently monitor sites inside the Red Cliffs NCA. Routing the NCH through one known petroglyph panel (and an as-of-yet unknown number of other precious sites) undermines the efforts of site stewards who volunteer their time to monitor and guard heritage resources protected inside the Red Cliffs NCA. Addressed in the DEIS: No.</p>	<p>The BLM values the efforts of volunteer site stewards for the protection of the NCA and its values. The proposed actions analyzed in the EIS would not reduce opportunities for stewardship, education, or other community outreach within the Red Cliffs NCA.</p> <p>If the BLM decision maker selects a Northern Corridor alternative that would cross the NCA and determines that an associated amendment to the RMP is warranted, the BLM ROD would indicate how the actions approved by the BLM are consistent with the designating legislation as well as the NHPA. As part of this decision, impacts on the area’s educational, scientific, and other objects and values would need to be offset through appropriate mitigation, including additional offsite habitat restoration, a suite of Mojave desert tortoise-specific measures, long-term monitoring of existing Mojave desert tortoise passages, and the installation of new interpretive signage.</p>
H.65-558	<p>2. Impacts to a decade of educational efforts focused on conservation of the special status species and 9 resource values protected in the NCA. Since 2009, Conserve Southwest Utah staff and SUNCLF members have spent thousands of hours providing outreach, stewardship, habitat restoration, litter pickups, guided hikes, and community building events focused on the Red Cliffs NCA and its value to our community. Current education efforts focus on welcoming all members of our diverse and growing community to experience and advocate for conservation of the 9 resource values protected inside the NCA. The NCH undermines great effort to connect our community to stewardship, education and appreciation of their NCA. Addressed in the DEIS: No.</p>	<p>Refer to response to H.65-557.</p>
H.65-559	<p>3. Conserve Southwest Utah currently has over 2,000 members, and SUNCLF over 40 site stewards, who are dedicated to protecting the Red Cliffs NCA’s resources. The NCH undermines their efforts as well. Addressed in the DEIS: No.</p>	<p>Refer to response to H.65-557.</p>

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H.65-562	2- Inventory Baseline Conditions: In the DEIS, establish baseline conditions by conducting inventories for each special status species protected inside the Red Cliffs NCA and for each of the 9 resource values the Red Cliffs NCA was designated to protect. Addressed in the DEIS: No.	Where appropriate, inventories of resources associated with the NCA’s purpose and area’s objects and values are included in the EIS. For example, refer to Section 3.5. As described in Chapter 2 and Appendix D of the EIS, if the BLM were to select an alternative that crosses the Red Cliffs NCA, additional inventories of special status species would be completed to support the application of design features, mitigation measures, and the preparation of the Final POD. Additionally, Table 3.18-1 directs readers to the resource-specific sections that correspond to each of the area’s objects and values, including special status species.
H.65-242	National Conservation Areas are established by Congress or the President. The DEIS does not discuss any plan or mechanism for achieving NCA status for Zone 6. The DEIS fails to show that the resources present in Zone 6 are comparable with the regionally and nationally-significant "objects and values" of a National Conservation Area.	Refer to response to NCA-03. As outlined in the comment, NCAs are established by Congress. There are no proposals to establish Zone 6 as a NCA as a part of the actions analyzed in the EIS.
H.65-243	Zone 6 consists of private, state, BLM, and BLM-ACEC lands. The SITLA lands may slowly be brought into federal ownership, but zero percent of Zone 6 would be managed as a National Conservation Area. Thus, management for resources in Zone 6 would not be equal to management of objects and resource values in the Red Cliffs NCA. The highest level of protections in a portion of Zone 6 is afforded by the ACEC designation, but even this offers weaker protections than the Red Cliffs National Conservation Area. An ACEC designation provides no assurance that the land will be managed effectively for the Mojave desert tortoise, or for the long term. The ACECs for tortoise conservation in California allow for many incompatible uses. There are declining trends for tortoise in ACECs, and many are below the viability threshold calculated in the 1994 Recovery Plan. Thus, BLM has a history of not effectively managing for tortoise conservation in ACECs. ACEC designation can be changed at any time by amending a Resource Management Plan. This was recently done by BLM in the California Desert Conservation Area to designate more OHV routes in tortoise ACECs (Tortoise Conservation Areas), despite declining numbers.	Refer to response to H.65-242. While it contains Mojave desert tortoise habitat, the Red Bluff ACEC was not established and is not currently managed with a relevant and important value related to the conservation of tortoise or its habitat.

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H.65-267	<p>In addition to guidelines under FLPMA, BLM must also manage the NCAs "in a manner that conserves, protects, and enhances the resources of the national conservation area" and to "conserve, protect, and enhance for the benefit and enjoyment of present and future generations the ecological, scenic, wildlife, recreational, cultural, historical, natural educational, and scientific resources." As a result, BLM is required to assess and develop prescriptions to manage the natural soundscapes of both NCAs. While BLM's local recreation and wilderness planners have been able to document where human-caused noise is considered prevalent or absent, this information is limited and cannot serve as an adequate baseline inventory of natural soundscapes in either planning area. Instead, BLM needs to expand its understanding of current natural soundscape within the NCAs to ensure its final management planning decisions improve or maintain current noise levels in the appropriate areas while restricting anthropogenic dominated soundscapes to select areas.</p>	<p>Comment noted. Natural soundscapes were not established as an object and value of the Red Cliffs NCA and was not included in Congress' list of purposes for establishing the NCA in OPLMA. The BLM approved the Red Cliffs NCA RMP in 2016, which includes measures to conserve, protect, and enhance the objects and values of the NCA. An analysis of the potential impacts of the Federal actions considered in the EIS on noise is included as Section 3.23.</p>

**0.3.21 Noise**

<b>Letter #- Comment # or Public Concern Statement #</b>	<b>Comment</b>	<b>Response</b>
<b>NOI-01</b>	<p>The BLM fails to analyze noise level increases, noise impacts and whether or not sound walls are needed in the Draft EIS. These impacts are critical for the public to comment on in addition to health, quality of life and property values. By not analyzing noise impacts until after the EIS and during design of the Northern Corridor, it will be too late for the public to comment, address significant noise issues which impact homeowners, and too late to consider alternative traffic mitigation.</p> <p>BLM fails to incorporate a recent noise study completed for the Washington Parkway Expressway (prepared by PEC consultants) which concluded noise levels would increase by more than 30 dBA in some locations (double the normal noise level). Since the Northern Corridor is similar to the Washington Parkway and will connect to it, this study should be referenced to fully consider data relevant to the Northern Corridor.</p>	<p>The noise report for the Northern Corridor project (Appendix K of the EIS) acknowledges a noticeable change in noise levels near the Northern Corridor alignment where no roadway exists. A qualitative noise analysis was prepared and was determined to be appropriate based on the planning level decisions to be made under this EIS (refer to Section 3.23.2.2 of the EIS). The noise impacts for the alternatives are described in detail in Section 3.23.2.2 and in Appendix K. Noise impacts have been adequately assessed to fully disclose anticipated noise impacts to the public, assist the BLM in its decision-making, and support the comparison and evaluation of impacts of the alternatives.</p> <p>Table 1.5-2 of the EIS states that the previously approved Washington Parkway has independent utility from the proposed Northern Corridor and is addressed under cumulative impacts as a separate reasonably foreseeable future action. Although the Washington Parkway Expressway and Northern Corridor Highway proposed improvements would connect, numerous factors must be considered when predicting noise levels. Traffic volumes, distance to receptors, and topography could vary between these two projects. For UDOT to construct the new roadway, more design details will be determined, including the specific alignment, and how terrain can be used to potentially block traffic noise. A separate project analysis with a more detailed noise analysis would be required per the UDOT Noise Abatement Policy and conducted after completion of the ROD if an action alternative is selected. In that separate project analysis, potential noise impacts would be</p>

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		determined through modeling and the need for noise abatement would be assessed.
NOI-02	<p>Many visitors to BLM managed lands, particularly the National Conservation Lands, are often seeking a quiet, outdoor recreation experience.</p> <p>Under FLPMA, BLM is required to manage the public lands "in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition." 43 U.S.C. § 1701(8). Like viewsheds and air quality, changes to natural soundscapes can heavily impact other uses, such as opportunities for quiet recreation. To ensure BLM gives meaningful effect to FLPMA's mandate, the agency must thoroughly consider how actions proposed in its draft management plans will impact the natural soundscapes across all areas.</p> <p>In addition, noise is recognized as another important consideration under Executive Order 11644 ( 1972), as amended by Exec. Order 11989 ( 1977), which orders the BLM to locate recreation areas and trails to: "[m]inimize conflicts between off-road vehicle use and other existing or proposed recreation uses of the same or neighboring public lands, and to ensure the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors." 43 C.F.R. §8342.1. The need to minimize conflicts between user groups, including noise conflicts, supports BLM's management decisions to create specific recreation management zones that cater to quiet uses, and support activities like: hiking, biking, horseback riding, birdwatching, hunting, etc. The DEIS should incorporate recent studies which show that human-caused noise has doubled the level of environmental sound in 63 percent of U.S. protected areas, and produced a tenfold or greater increase in 21 percent of protected areas. In general, a growing number of studies indicate that animals, like humans, are stressed by noisy environments.</p>	<p>Comment noted.</p> <p>Because the field noise measurements only provide noise levels at a specific location, a figure depicting the natural soundscape and discussion have been provided in the Noise Technical Report, Appendix K, and Section 3.23 of this EIS.</p> <p>The purpose of this EIS is to assess potential noise impacts from roadway noise, not recreational mobile sources. However, Section 3.23 of this EIS, does provide a brief discussion on how recreational uses would be managed for the SGFO RMP Amendments.</p> <p>For UDOT to construct the new roadway, more design details will be determined, including the specific alignment, and how terrain can be used to potentially block traffic noise. A separate project analysis with a more detailed noise analysis would be required per the UDOT Noise Abatement Policy and conducted after completion of the ROD if an action alternative is selected. In that separate project analysis, potential noise impacts would be determined through modeling and the need for noise abatement would be assessed that could also benefit recreational areas.</p>

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4986-1	<p>We also need to consider the traffic and noise that these highways would bring to already developed and valuable homes and neighborhoods. The argument I hear is that our area is growing and we need to plan for that growth. That was the argument in favor of the Southern Corridor. When that was built, there were no developments nearby. The developments followed the building of the corridor and the airport. The next corridor should be far away from current development.</p> <p>There are two proposed routes that would not impact current homes and neighborhoods (alt 5 &amp; 6). Businesses would be the most impacted which makes the most sense since a main purpose in building this Northern Corridor would be for truck traffic that needs to get to the west side (this would also be the noisiest traffic as close as 29 feet from homes on the Washington Parkway Extension should alt 2, 3, 4 be completed). This noise level is often overlooked.</p>	<p>Alternative preference is noted. Refer to response to NOI-01. A northern alignment was considered farther away from current development but was eliminated from further evaluation because it has similar effects as the No Action Alternative and showed no improvement to future congestion or east-west connectivity in the St. George urbanized area. Noise impacts related to the alternative alignments are described in Section 3.23.2 of the EIS.</p>
7295-2	<p>you mentioned that noise was addressed in the Draft DEIS, but in Vol. 2 page 209, it omits any projected noise levels for location M5 in Green Springs. Why? Page 211 erroneously explains, The design details needed to model projected noise are not available and cannot be determined before first considering where to align the highway...</p>	<p>Field noise measurements were collected to determine ambient noise levels and are provided in the EIS. Noise levels collected at M5 were approximately 37 dBA. No modeling was conducted to predict future noise levels because the preliminary design information is insufficient to provide accurate results. However, a qualitative analysis was conducted stating that the area where the Northern Corridor alignments are proposed (including M5), noise levels are anticipated to have a noticeable change as a result of a new roadway where one currently does not exist.</p> <p>Refer also to response to NOI-01.</p>
A.21-17	<p>BLM and USFWS should consider the following clarifications to Section 3.23 concerning Noise in the DEIS and any necessary corresponding changes in the Noise Technical Report included as Appendix K: The DEIS acknowledges that the agencies considered UDOT's Noise Abatement Policy (08A2-01, June 2017). DEIS, p. 3-157. BLM should review UDOT's current Noise Abatement Policy dated May 28, 2020, and consider whether that policy would change any assumptions in the DEIS.</p>	<p>UDOT's current noise abatement policy dated May 28, 2020 was reviewed and it does not change the assumptions or analysis presented in the EIS.</p>

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A.21-18	BLM and USFWS should consider the following clarifications to Section 3.23 concerning Noise in the DEIS and any necessary corresponding changes in the Noise Technical Report included as Appendix K: UDOT suggests the DEIS would benefit from additional discussion regarding the agencies' evaluation and process on how the agencies utilized UDOT's Noise Abatement Policy and the Federal Highway Administration Noise Standard in its analysis. For example, UDOT recommends clarifying that Category F land uses are not considered noise sensitive and are not evaluated for impacts. Noise abatement is only considered for land use categories A, B, C, and D.	Text was added to clarify noise abatement is only considered for impacted noise sensitive receptors. Noise sensitive receptors include permitted land use activity categories A through E where there is frequent human outdoor use. In addition, land use categories F and G are not noise sensitive receptors and are not evaluated for noise impacts.
A.21-19	BLM and USFWS should consider the following clarifications to Section 3.23 concerning Noise in the DEIS and any necessary corresponding changes in the Noise Technical Report included as Appendix K: UDOT suggests replacing the reference to Senate Bill 177 on page 3-160 of the DEIS to Utah Code 72-6-112.5. (Senate Bill 177 was subsequently amended by House Bill 96 in 2019.)	Replaced reference to Senate Bill 177 with Utah Code 72-6-112.5.
A.21-20	BLM and USFWS should consider the following clarifications to Section 3.23 concerning Noise in the DEIS and any necessary corresponding changes in the Noise Technical Report included as Appendix K: Section 4.2 in the Noise Technical Report should be updated that construction noise is now addressed through Section 00555 of the 2020 Standard Specifications, not Section 01355 of the 2017 Standard Specifications. DEIS, App'x K, p. 6.	Replaced reference to 2017 standard specifications with 2020 standard specifications.
A.21-21	BLM and USFWS should consider the following clarifications to Section 3.23 concerning Noise in the DEIS and any necessary corresponding changes in the Noise Technical Report included as Appendix K: The Noise Technical Report suggests that any otherwise warranted noise abatement along the Northern Corridor would likely be acoustically feasible due to the absence of gaps for driveways and connector roads. DEIS, App'x K, p. 11. However, the report should clarify that any noise abatement would be subject to further review and evaluation under criteria for feasibility and reasonableness. For example, UDOT notes that acoustic feasibility requires a 5 dBA reduction for 50 percent of receptors to warrant noise abatement.	Text was added in the results section to further clarify feasible and reasonable criteria.
A.20-4	ES; ES-11; Table ES.5-1; Cell Alt. 1, 5, 6; Noise. Comment: The document states "no anticipated significant increase in future noise" however, urban noise levels will increase with increased traffic volume, traffic speeds, and congestion through the urban areas.	The EIS states traffic volumes will increase as well as noise, but a significant change in noise (or substantial increase over existing) is not anticipated in the urban areas.

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A.39-3	<p>Failure to include projected noise data is unacceptable: As homeowners near the proposed Corridor, we were surprised the DEIS (Vol. 3 p. 323-324) contains no projections for noise increases to residents: it shows nothing but current noise levels, and only at two residential locations (M4 for Middleton &amp; M5 for Green Springs). The DEIS states that Alt. 5/6 have no significant noise impacts since currently existing roads with high traffic already exist in the City. However, the DEIS points out that Alt. 2/3/4 would create many significant noise increases, especially to residents. Therefore, the DEIS should have included projected noise levels for impacted residents in multiple locations, but it did not include even one. This must be included in the FEIS, which should also include the number of homes that will experience a “substantial noise increase” (more than a 10dBA increase) for the Alternatives advanced.</p>	Refer to response to 7295-2.
A.39-5	<p>The FEIS must contain projected noise levels that aren’t biased: Even with unspecified daily traffic volumes &amp; alignments for 2040, the PEC study shows that many homes would experience drastic noise impacts around 60 decibels (which is equivalent to a chain saw at 400’ away). So we would expect FEIS projections to meet or exceed 60 decibels, since BLM projections will definitely include all Corridor traffic volumes, and they will also be based on higher numbers for the year 2050 (Vol 3 p. 348 says “anticipated daily volumes for Alt. 2/3/4 in 2050”).</p> <p>2. The FEIS must contain projected noise levels that are based on unbiased traffic estimates: 2050 traffic estimates in the DEIS appear seriously undercounted and flawed, especially when compared to DMPO estimates published in 2018. The FEIS must contain accurate traffic estimates so that projected noise levels will be accurate. See Section VI below for details.</p> <p>3. The FEIS must contain projected noise levels for every home along the Reserve boundary, near the Corridor (from Cott. Springs Road on the west, to Concord Parkway on the east): If the BLM violates Reserve promises to residents near the Corridor, they would put thousands of vehicles per day as close as 200 feet from backyards. For this reason, noise projections are required, and predicting noise at just one point for Middleton (M4) and just one point for Green Springs (M5) would be completely inadequate. Like the PEC study, every home along the Reserve boundary (near the Corridor) should be listed</p>	<p>Refer to response to NOI-01. In addition, per UDOT noise policy, level of service C traffic volumes are typically used to assess potential noise impacts and evaluation of noise abatement. Level of service C represents free-flowing conditions, which are the highest volume of vehicles traveling at the highest speeds in order to predict worst noise levels.</p>

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	<p>with its current AND projected noise level (for an example, see PEC's Table 4). We also believe that all these homes should be notified by BLM with noise data by mail for public comment before a decision is made.</p> <p>a. The FEIS should also contain a total count of all significantly impacted homes near the Corridor and any other affected streets nearby: Given that state agencies define a "substantial noise increase" (SNI) as more than a 10 decibel increase, a count of all homes impacted by a SNI should be provided to the public for commenting. Providing this count is especially important for the preferred Alt. 3, along with the non-Reserve alternatives (Alt 5/6). Obviously the BLM will find that SNI impacts affect infinitely more homes in Alt. 2/3/4 as compared to Alt. 5/6. We estimate these counts to include thousands of residents impacted by Alt 2/3/4 and less than 100 residents impacted by Alt 5/6. As an extra point, we believe that all homes impacted by a SNI should be notified by BLM with noise data by mail for public comment before a decision is made.</p> <p>4. The FEIS must contain projected noise levels for every home along the entire Washington Parkway Extension (from Concord Parkway on the west, to I-15 on the east): If the BLM violates Reserve promises to residents near Washington Parkway, they would put thousands of vehicles per day as close as 29 feet from backyards. Because of this, every home along Washington Parkway should also be listed with its current AND projected noise level. (See section --- for reasons why Washington Parkway must be included.) Like the PEC study, every home along the Parkway should be listed with its current AND projected noise level (for an example, see PEC's Table 4). We also believe that all these homes should be notified by BLM with noise data by mail for public comment before a decision is made.</p> <p>a. The FEIS should also contain a total count of all significantly impacted homes near the Washington Parkway Extension and any other affected streets nearby: See section --- for reasons why Washington Parkway must be included. Given that state agencies define a "substantial noise increase" (SNI) as more than a 10 decibel increase, a count of all homes impacted by a SNI should be provided to the public for commenting. Providing this count is especially important for the preferred Alt. 3, along with the non-Reserve alternatives (Alt 5/6). Obviously the BLM will find that SNI impacts affect infinitely more homes in Alt. 2/3/4 as compared to Alt. 5/6. We estimate these counts to include thousands of residents impacted by Alt 2/3/4 and less than 100 residents impacted by Alt 5/6. As an extra point, we</p>	

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	<p>believe that all homes impacted by a SNI should be notified by BLM with noise data by mail for public comment before a decision is made.</p> <p>5. The FEIS must include noise studies that include all the new homes that have been built:</p> <p>The PEC Study included only 45 homes in Green Springs, ZERO homes in Brio, and only 18 homes in Warm Springs, with 2 points on the golf course. This is a high-growth area and many new homes have been built in the last year, none of which have been considered. They must be included, since the public, and these new residents, have never been asked for comment on a version of Washington Parkway that is anything more than a quiet secondary connector for Green Springs. The FEIS must include noise studies that aren't artificially limited by a 250 foot boundary:</p> <p>Another reason the PEC Study included so few homes (only 63!) is because of their artificially limited study area of 250 feet from the Washington Parkway (only 2-3 houses deep). This creates a huge undercount of the homes that would actually experience a SNI impact. As explained in sections 2-3 above, the FEIS study should include all homes that would experience an increase of more than 10 decibels, from Grand Heights in St. George (near Cott. Springs Rd) to Warm Springs in Washington (near Tortoise Rock Dr).</p>	
A.39-12	<p>Noise impacts to residents near connecting roads is unacceptable: If the BLM reneges on HCP commitments and allows a highway through a Reserve, then traffic and noise will also increase significantly on all the connecting roads nearby. This would affect currently quiet roads like: Cottonwood Springs Road aka Turkey Farm Road (putting over 10,000 vehicles per day as close as 200 feet to homes in Grand Heights), and many quiet residential streets like Concord Pkwy, Green Springs Dr., Fairway Dr., &amp; others in Green Springs; Rialto Pkwy &amp; others in Brio; and Main Street, Tortoise Rock Dr., &amp; others in Warm Springs. Thousands of residents would be impacted, and this is unacceptable given that the Reserve was to "remain roadless in perpetuity".</p>	<p>Refer to response to NOI-01. In addition, the detailed noise analysis would consider other roadways if traffic volumes could potentially affect noise levels at the identified noise sensitive receptors, as appropriate.</p>

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H.65-266	<p>The SPreAD-GIS can be used to (1) determine the areas within a planning unit where the natural soundscape is predominant and should be preserved during planning; and to (2) model sound propagation from uses such as motorized vehicles in a proposed quiet-use recreation area to determine what planning decisions, such as route closures, could be used to restore and enhance the natural soundscape. In this way, agencies can ensure recreation management zone designations, among other things, help maximize the opportunities for experiencing naturalness and solitude by limiting uses that may compromise natural soundscapes in particular areas.</p> <p>While there are other models and methodologies available, we highlight SPreAD-GIS because it is available by request from TWS.</p>	<p>The SPreAD-GIS appears to model motorized vehicles as a single engine. Per UDOT noise policy, the FHWA traffic noise model is the approved model for assessing potential noise impacts and evaluation of noise abatement from roadway noise. In addition, roadway noise is modeled as a linear source and predicts the average noise level over a period of time.</p>
H.65-548	<p>21. How will the BLM mitigate for increased noise and air pollution experienced by recreators? Addressed in the DEIS: No.</p>	<p>For UDOT to construct the new roadway, a separate project analysis with a more detailed analysis, including noise and air, would be required and conducted after the ROD if an action alternative is selected.</p>
H.65-595	<p>1. 32-46 thousand vehicles per day are projected to travel on the Northern Corridor in 2040, dramatically increasing noise levels in the southern portion of the NCA. BLM must study the encroachment and cumulative impact of artificial sound-levels resulting from the NCH. Vehicle noise would be transmitted for miles in all directions disrupting the natural soundscape. With the expected St. George population growth, vehicle noise pollution would intensify over time.</p> <p>Addressed in the DEIS: Not adequately addressed. BLM failed to provide estimates on potential sound level increases that would be caused by the highway. The Draft EIS stated that noise modeling (estimating increases in noise levels due to the NCH) and consideration of noise barriers (sound walls) would occur later in the NEPA process. BLM also failed to incorporate a recent noise study completed for the WPE95 which concluded noise levels would increase by more than 30 dBA in some locations (double the normal noise level). Since the NCH is similar to the WPE and will connect to it, this study should be referenced to fully consider data relevant to the NCH.</p>	<p>Refer to responses to NOI-01 and NOI-02.</p>

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A.39-8	<p>The BLM is “required to analyze issues...associated with significant impacts” but did not: The DEIS (Vol. 2 p. 17-18) says impacts along Washington Parkway have been “dismissed from detailed analysis”, but this is in direct conflict with instructions in the same paragraph stating that the BLM is “required to analyze issues... associated with significant impacts”. Clearly the impacts to residents along Washington Parkway and connecting roads is significant, as addressed in sections like IV below. And clearly these impacts ONLY happen if the BLM chooses Alternatives 2-4. They don’t ever happen otherwise. They’d only occur as a DIRECT result of an unexplainable BLM choice to violate commitments made in the 1995 HCP that residents were relying on and paid premiums for. Therefore, these issues cannot be dismissed. 1. Significant impacts near Washington Parkway ONLY happen if the BLM chooses Alternatives 2-4: these impacts cannot be dismissed since they would only occur as a DIRECT result of half the options being considered by the BLM. Currently, far less than 500 vehicles per day (vpd) use the Washington Parkway Extension (any section between Concord Parkway and I-15). The only way this number will ever drastically increase is if the BLM violates the HCP and chooses Alternatives 2-4, at which point DMPO predicts BLM’s choice would cause 32,000 vpd by 2040 to be funneled on or off Washington Parkway (per 3/26/18 Spectrum &amp; 3/28/18 DMPO open house). This traffic would come as close as 29 feet from backyards. For all residents studied by PEC, the impact was drastic: Their report, submitted in June 2019 states, “All impacted properties show a substantial noise increase”, with many homes experiencing 60 decibels, which is equivalent to a chainsaw at 400’ away. This huge increase does not occur if the BLM chooses Alt. 1/5/6; it only happens if the BLM chooses Alt. 2/3/4. The BLM’s decision alone determines whether these significant impacts occur, and so the impacts must be considered in the DEIS.</p>	<p>Refer to response to NOI-01. Appendix L of the EIS, the Traffic Report, includes an appendix showing current and projected intersection volumes during peak traffic hours. Traffic volumes in the vicinity of Washington Parkway are projected to be generally less than 500 vehicles.</p>

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A.39-9	<p>Since the BLM’s preferred route would change the studied purpose of Washington Parkway, the FEIS must consider Washington Parkway. Their decision is completely changing its nature: The Washington Parkway comes within 29’ of backyards and currently carries less than 500 vehicles per day. It is nothing more than it was studied to be: a residential connector providing a secondary Green Springs outlet. This is all it is, and this is all it was ever studied as. The PEC Study (p. 6) makes it clear that their report was limited to this purpose, stating, “The purpose of the project is to improve transportation mobility and provide an alternate collector route from I-15 to the Green Springs community”. The BLM’s preferred Alt. 3 would change the studied purpose &amp; nature of Washington Parkway, so the FEIS must consider impacts that the BLM would be creating there.</p>	Refer to response to DP-07.
A.39-30	<p>BLM dismisses considering the Washington Parkway Extension (WPE) as a connected action to the NCH. In doing so, they fail to consider the negative impacts to residents in Warm Springs, Brio, North Green Springs, and West Green Springs that would result from the new highway connecting to the WPE.</p>	Refer to response to DP-07.

**0.3.22 Out of Scope**

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4975-1	I do a lot of windsurfing, kayaking, and SUP on Sand Hollow and Quail Creek and have found the pressure from these monster wakeboard boats on weekends is excessive. I talked to Bill Ennis that owns Dig Paddle, and proposed a wake free 2-3 hour period one or two week days a week.. early in the morning, say 7-10.	Recreational opportunities within the Sand Hollow State Park and Quail Creek State Park are managed by Utah State Parks. Any recreational restrictions for the Sand Hollow Reservoir and/or Quail Creek would be imposed by Utah State Parks, not the BLM. The management of these state parks is beyond the scope of development of this EIS.
4934-1	<ul style="list-style-type: none"> <li>• The National Environmental Policy Act (NEPA) was intended to move agencies such as BOR to prefer alternatives that minimize damage to the natural and human environment; however, the BORs preferred alternative is the most damaging alternative.</li> <li>• LPP construction adds to the industrialization of US 89, which is a scenic corridor in the Grand Staircase Escalante National Monument (GSENM). The GSENM boundary was illegally reduced by the Trump administration to allow fewer restrictions to building the LPP.</li> <li>• LPP would include six hydroelectric plants and five pump stations with power lines, high steel power poles connecting them to existing power grids, parking lots, substations, lights, new access paved roads, regulating tanks and reservoirs, manholes, air release valves, vacuum relief valves, blow off valves, fencing, buried forebay tanks, buried surge tanks, pipeline inspection gauge (pig) retrievals used to clean the pipe, and surface overflow detention basins, all of which require weekly maintenance.</li> <li>• LPP infrastructure would scar the scenic beauty of desert landscapes, disturb wildlife, and expose archeological and cultural sites along its route.</li> <li>• LPP facilities would be visible from US Highway 89 and other highways along vast, scenic areas, compromising viewsapes for untold thousands of visitors, and affecting tourism.</li> <li>• Habitat for the threatened Mojave desert tortoise is already under stress due to development pressures; LPP construction activities would add additional stress.</li> <li>• These lands draw American tourists from around the country and provide valued outdoor recreation opportunities and would be permanently scarred by LPPs infrastructure.</li> </ul>	The cumulative impacts as a result of the proposed action, in addition to past, present, and reasonably foreseeable actions, including the Lake Powell Pipeline, were analyzed in Section 3.28 of the EIS. Direct impacts of the Lake Powell Pipeline are beyond the scope of analysis for this EIS.

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	<ul style="list-style-type: none"> <li>The scenic beauty of our public lands in Washington and Kane counties is world-renowned and drives our economies, providing thousands of jobs in hospitality and tourism. Visitors driving to different National Parks and the Grand Staircase Escalante National Monument would be adversely affected by the visible scars from building the LPP and the infrastructure to support it.</li> <li>Scars from the LPP would harm scenic beauty important to Utahs economy which is transitioning to tourism and outdoor recreation, an industry that provides 110,000 direct jobs and \$3.9 billion in wages in the state of Utah in 2017.</li> </ul> <p>I strongly object to the construction of this pipeline. It is unnecessary and could be avoided with sensible conservation efforts that Washington County has not even attempted. We cannot afford this folly which I believe is politically motivated.</p> <p>Thanks for your consideration.</p>	
A.38-3	<p>All alternatives in the DEIS discuss the efforts BLM will take to suppress and/or avoid or minimize impacts from wildfire within Zones 1-6 of the Reserve. One of the major impacts from wildfire, as noted in the DEIS, is the presence of invasive weeds, including cheatgrass, Red Brome, and invasive Mustard plants. However, the Reserve expressly restricts the use of grazing within the Reserve. The DEIS should allow the possibility for all tools, including temporary, high-intensity grazing, within the Reserve to assist with Fire Suppression and weed managements. Similarly, the DEIS is unclear as to what plants may be used to rehabilitate an area after fire. The State suggests including language stating that, “fire rehabilitation will utilize the best available tools and seed-mixes to rehabilitate an area of the Reserve, following a fire.”</p>	<p>Amendments to the Red Cliffs NCA RMP not triggered by the BLM’s response to UDOT’s ROW application, such as permitting livestock grazing, are outside the scope of this EIS. Potential rehabilitation plantings the BLM may implement after a wildfire is outside the scope of this EIS because it is not an impact as a result of the proposed action or its alternatives. Post-wildfire rehabilitation of BLM-managed lands is addressed in applicable RMPs.</p>
14036-1	<p>This is a no- brainer. Southern Utah needs the water. Growth = economic vitality. No water = no growth. Politically this is much harder. But lets set aside politics and other States interest in the water, such as Nevada and California, and consider the question: Do we need the water? Yes. Please grant the project. &lt;<a href="https://www.hintonburdick.com/images/hbloggo.png">https://www.hintonburdick.com/images/hbloggo.png</a>&gt; Kris J. Braunberger, CPA</p>	<p>Comment noted. This project will not affect existing or future regional water supplies. Regional water supply is outside the scope of this EIS.</p>

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14065-3	<p>The EIS fails to consider "incidental impacts" specifically, the jobs that would be lost by engineers, biologists, lawyers and public relations persons, when every project developed over the next 20 years on 70,000 acres of land does not have to conduct NEPA analysis and has been given a "take" permit based on reports and science that are not continually updated and exposed to a large section of the public for review. Developing our lands can not be the primary source of income in this area for ever, the HCP will have the result of exhausting development as an economic industry at a faster scale and is not the best thing for our economy in southern utah. Having to comply with NEPA and the ESA would increase the number of jobs available and widen the scope of jobs in the county.</p>	<p>As explained in Section 3.26.2.1 of the EIS, although denial of the ITP may indirectly slow economic development due to the fact that ITPs would be required to develop non-Federal land with Mojave desert habitat, granting of the ITP and approval of the amended HCP would not conversely stimulate increased development.</p> <p>Although a NEPA analysis would not be required for each take under the ITP if it is granted, the grant of the ITP would not exempt other Federal actions that may impact the environment within the area subject to the ITP from NEPA's requirements.</p>
14065-9	<p>Amendments should be made to the governing body of the HCP. The law requires that one of the members of the HCP committee be from a "conservation" group. The HPC has been utilizing the Virgin River Trust as their "conservation" member. The Virgin River Trust was created by a land developer and City official of a local town who directly benefits from the decisions made by the HPC. I believe this needs to be addressed and does not meet the requirements under the law governing the HCP. Financial documents publicly available from the IRS show that Steve Brennon, a land owner within the last HCP, donated a significant amount of money to the Virgin River Trust. Rules should be included to preclude private inholdings within the HPC from donating funding to any of the board members or it's organizations. In addition, the board is supposed to be composed of a member of the public. In the past the City has an employee who sits in to fill this position. I believe this is a conflict of interest as the City has major utility projects that directly benefit from the HCP's flexible permitting. Members from the public should be able to sign up and serve one year terms, with no ties to any development projects or funding, or conflicts of interest.</p>	<p>Comment noted. The appointments and membership of the Habitat Conservation Advisory Committee are outside of the BLM and USFWS' role in preparation of the EIS.</p>

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A.25-3	BLM should protect the MDTs in the proposed Zone 6 without the NCH. Zone 6 should have been created back in 1995 when the Reserve was initially established given that the Upper Virgin River Recovery Area is the smallest of the recovery units. That was argued as a problem back in the 90s but apparently no one thought or cared to investigate the area now being considered for Zone 6. The number of tortoises and ages as shown in the 2017 survey done by HCP Administration reveal that many of the adult tortoises have been there a long time.	Amendments to the RMP outside those triggered by the applicant's ROW application, such as the creation of proposed Zone 6 independent of the construction of the Northern Corridor, are outside of the scope of this EIS.
A.25-26	For over ten years we've regularly been attending Habitat Conservation Advisory Committee meetings. During that time it seems that every year the "fire" season sneaks up on the HCAC and HCP administration. In fact, a quick review of meeting agendas over the past seven years showed no agenda items related to fire prevention in spite of the fact that we are in throws of a twenty-year drought and just suffered through two major fires. There are more "project" and "land acquisition" items on the agendas than issues having to do directly with protection of the T&E species such as fire prevention.	Comment noted. Topics of discussion at the Habitat Conservation Advisory Committee meetings are outside the scope of the BLM and USFWS' preparation of the EIS.
A.25-49	At some point in the future, the growth in St. George and Washington County generally will require overpasses. We have not been in cities of 500,000 and more where these are not seen. Since that's the case and since these structures will affect views at that time, there is no need now to delay construction. Any of the alternatives involve some level of visual disturbance in various locations. We should preserve Red Cliffs as much as possible while keeping these visual disturbances in locations where the visuals have, for the most part, already been disturbed. Better to have visual effects that are outside Red Cliffs than a new road and intersection with traffic lights inside Red Cliffs. People who would be affected by the visible flyover to I-15 are generally already affected by all the buildings, roads, lighting, signs, etc., within the busy core of St. George.	Comment noted. Potential impacts on visual resources resulting from the proposed alternatives are described in Section 3.13.2 of the EIS. Construction of potential overpasses outside the project area throughout St. George is outside the scope of the BLM and USFWS' preparation of the EIS.

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H.65-51	<p>We register an objection to the mis-use of taxpayer-funded resources to promote a preference with a biased narrative and to promulgate mis-information related to it.</p> <ol style="list-style-type: none"> <li>1. From August 2020 Washington County E-News, "Washington County has been talking about a Northern Corridor"</li> <li>2. From a Washington County Republican Email Bulletin, date 9/3/2020, "Join the Fight for the Northern Corridor!", requested by the Washington County Attorney 12 Issue 6. The county appears to be communicating with only a subset of its constituents.</li> </ol> <p>All constituents should receive the same messages and have an opportunity to question them.</p> <ol style="list-style-type: none"> <li>3. From Sept 8, 2020 Washington County E-News, "4 myths about the Northern Corridor"</li> <li>4. From Sept 9. 2020 E-News, "Washington County Community Highlights!"</li> </ol>	<p>Comment noted. Washington County's communication with stakeholders outside the NEPA process is beyond the scope of the BLM and USFWS' preparation of the EIS.</p>
H.65-445	<p>Horrocks- Disclose how Horrocks and any of its associates would be involved in the planning, design, and/or construction and maintenance of the Northern Corridor Highway if the ROW is granted.</p> <p>Addressed in DEIS: No. This is a critical omission, as Horrocks was responsible for highway design (DEIS at 4-5) and would likely be awarded the lucrative contract to design the NCH if the ROW is granted. Addressed in the DEIS: No.</p>	<p>Potential contracting processes for future phases of the project if an action alternative is selected are outside the scope of this EIS. UDOT would issue a Request for Proposals for any future phases of work and would award the work through a competitive proposal process.</p>
H.65-446	<p>Jacobs- We are concerned with the use of Jacobs Engineering (JE) for this same reason, as Washington County and UDOT hired JE to conduct the environmental analysis process and to prepare the DEIS. Jacobs contributed to the 2012 Washington Parkway Study: Integration of East-West Transportation Needs with Conservation Objectives for Desert Tortoise in Washington County, Utah. In this report, JE asserted that the NCH" ... can ameliorate many existing threats, contribute to improving conditions, and provide future management options for the tortoise on the Reserve."</p> <p>Addressed in DEIS: No. See above.</p>	<p>Refer to response to H.65-445.</p>
H.65-447	<p>SWCA- For similar reasons are concerned with the use of SWCA consultants, as they too have been actively working with Washington County to facilitate construction of the NCH and have been involved in pre-surveys of the NCH alignment (September 2018) and surveys of Zone 6.</p> <p>Disclose a plan detailing how SWCA will neutrally evaluate scoping comments. Addressed in the DEIS: No.</p>	<p>Refer to response to H.65-445.</p>

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H.65-500	2. The Cottonwood Canyon Wilderness shares a common boundary with Dixie National Forest Cottonwood Forest Wilderness which is adjacent to the Pine Valley Wilderness. This patchwork of connected, protected land ranges in elevation from roughly 2,800 feet at the southern boundary of the Red Cliffs NCA up to 10,300 feet in the Pine Valley Wilderness. We believe that it is critically important to protect this connected natural landscape from harmful fragmentation. Large contiguous swaths of land function as crucial wildlife corridors and will become increasingly important to the survival of many species that may need to migrate to higher elevations to cope with climate change. Addressed in DEIS: No.	Comment noted. The actions analyzed in the EIS do not impact the Cottonwood Canyon Wilderness, Cottonwood Forest Wilderness, or Pine Valley Wilderness.

**0.3.23 Paleontology**

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H.65-164	<p>The Red Cliffs NCA should protect all paleontological resources, not just those with lower sensitivity. Again, Zone 6 will not mitigate destruction of fossil resources, including trackways, that may be unique to the Reserve area. BLM needs to analyze these significant resources much better, with maps of fossil formations, identified fossil resources, and real mitigation measures. Using Zone 6 as a supposed universal mitigation measure for all resources is a faulty premise and will not reduce impacts to less than significant.</p>	<p>The data relied upon in the EIS analysis was provided by the BLM and included known fossil locations, as well as Potential Fossil Yield Classification (PFYC) classes within the Red Cliffs NCA and proposed Zone 6. Each alternative alignment and its proposed ROW corridor was overlaid upon the paleontological resources data to identify whether any known fossil locations would be affected, as well as which PFYC classes the alignments would cross.</p>
H.65-165	<p>A Paleontological Resources Protection Plan is deferred until after approval of a ROW (DEIS Appendix D-14), without the ability of public input or expert review. This needs to be analyzed in the Final EIS. Simply designating a buffer around any discoveries of significant fossil resources during construction does not adequately protect these important and unique resources in the Red Cliffs NCA.</p>	<p>As stated in Table D-1 in Appendix D of the EIS, a survey would be conducted prior to construction to verify that no paleontological resources would be affected by construction. Any paleontological object or features would be treated in accordance with the Paleontological Resources Protection Plan. The Paleontological Resources Protection Plan would be developed prior to commencement of construction if an action alternative is selected, however it is not a document subject to public review and input, but would be reviewed and approved by the BLM prior to construction.</p>
H.65-241	<p>Alternative 3 would disturb geologic units within the Red Cliffs NCA classified as PFYC Classes 1 and 2 that have a lower probability to contain scientifically important fossil resources, but still could contain them. Construction of the highway would preclude discovery of any potential fossil records within the highway footprint for future scientific research. DEIS at 3-85. However, the Draft Red Cliffs NCA RMP shows that there are known paleo locations within 1 mile of Alternative 3, suggesting that the PFYC Classes impacted by the highway could, in fact, contain paleo resources. DRMP at 483.</p>	<p>The analysis focuses on potential impacts to geologic units classified as PFYC Classes 3 through 5, as those are the lands with a higher probability to contain scientifically important fossil resources. However, the EIS acknowledges that although no geologic units classified as PFYC Classes 3 through 5 would be affected by construction of any of the alternative alignments, potential paleontological resources may still be adversely impacted and discloses that, “construction of the highway would preclude discovery of any potential fossil records within the highway footprint for future scientific research.” Mitigation measures are proposed in Table D-1 in Appendix D of the EIS that would be implemented to avoid and minimize potential effects to paleontological resources if an action alternative is selected. Although known paleontological resources may be within a mile of Alternative 3, the alignment or its ROW would not directly cross any known fossil locations based upon a review of best available data. The data relied</p>

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		upon in the EIS analysis was provided by the BLM and included known fossil locations, as well as PFYC classes within the Red Cliffs NCA and proposed Zone 6. Each alternative alignment and its proposed ROW corridor was overlaid upon the paleontological resources data to identify whether any known fossil locations would be affected, as well as which PFYC classes the alignments would cross.
H.65-494	Paleo Resources: Complete inventories for paleontological resources. Addressed in the DEIS: No.	Refer to responses to H.65-164 and H.65-165. The impact analysis relied upon the best available BLM data regarding known fossil locations, as well as PFYC classes within the Red Cliffs NCA and proposed Zone 6. If an action alternative is selected, a survey would be conducted prior to construction to determine if paleontological resources are present that could be affected by construction and subject to mitigations measures proposed in Table D-1 in Appendix D of the EIS.
H.65-496	3- Paleo/Geological Survey: A complete inventory of currently-known and potential fossil sites should be analyzed by BLM, especially any potential new fossil beds in the path of the corridor right-of-way. The DEIS should describe a protocol of surveys for important paleontological and geological resources in the proposed corridor and a buffer around it, in order to avoid damage to these unique resources. A Paleontological Resource Mitigation Plan should be prepared during the environmental review process, where the public can comment and participate in the protection of these public lands scientific wonders and ensure they are fully documented. Addressed in the DEIS: No.	Refer to responses to H.65-164 and H.65-165.

**0.3.24 Plan of Development**

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-426	<p>4.3 Issue with the UDOT Plan of Development</p> <p>1. Overview Issue</p> <p>1. Figure 1, a map of the Northern Corridor route, incorrectly references the highway crossing private property. It is our understanding that the county purchased property in these area in anticipation of the highway being granted a ROW across federally managed lands. Table 2 is also affected.</p>	<p>The BLM's ROW processing and NEPA regulations do not require the BLM to request or accept comments on an applicant's POD. The Notice of Availability of the Draft EIS did not request comments on UDOT's POD. However, the BLM has shared comments received directed towards UDOT's POD during the public comment period for the Draft EIS with UDOT for their consideration. UDOT submitted a revised POD between the Draft and Final EIS.</p> <p>As outlined in Section 2.2.9 of the EIS, in order to obtain a Notice to Proceed to allow the initiation of construction, UDOT would be required to submit a Final POD to the BLM. The Final POD may be informed by pedestrian resource surveys and would identify the site-specific ROW needs and disturbance areas, and include maps of all proposed facilities, site-specific construction actions, temporary work areas, and any other facilities required for the project. The Final POD would also identify the site-specific application of design features and mitigation measures as required by any ROD issued by the BLM. UDOT would not begin construction until the Final POD is approved by the BLM.</p> <p>The POD submitted by UDOT between the Draft and Final EIS includes updated landownership information.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-427	<p>1.1.1 Preliminary Plan of Development Issue</p> <p>2. The 2 sources listed in this section represent a very sparse list of references, with one dating to 2012. If it is acceptable to build and use a highway in a protected habitat, there should be many references for doing it in an acceptable manner.</p>	<p>The BLM's ROW processing and NEPA regulations do not require the BLM to request or accept comments on an applicant's POD. The Notice of Availability of the Draft EIS did not request comments on UDOT's POD. However, the BLM has shared comments received directed towards UDOT's POD during the public comment period for the Draft EIS with UDOT for their consideration. UDOT submitted a revised POD between the Draft and Final EIS.</p> <p>BLM's ROW processing handbooks and regulations specify the required components of PODs. The information indicated in the comment is more appropriate for the BLM's review of a ROW application and are not a required component of the applicant's POD.</p>
H.65-428	<p>2. Applicant's Objectives</p> <p>Currently, the existing transportation network between SR 18 and 1-15 is not adequate to meet future (2050) travel demand in the northeastern and northwestern areas of St. George based on traffic projections from the DMPO's regional travel demand model (DMPO 2019).</p> <p>Issue</p> <p>3. The applicant's objective addresses issues projected to occur in the distant future. The POD should indicate that its final version will be updated with the latest knowledge about both the traffic modeling, methods of construction and operations prior to final go-ahead.</p>	<p>Refer to response to H.65-426.</p>
H.65-429	<p>2. Applicant's Objectives</p> <p>Currently, the existing transportation network between SR 18 and 1-15 is not adequate to meet future (2050) travel demand in the northeastern and northwestern areas of St. George based on traffic projections from the DMPO's regional travel demand model (DMPO 2019).</p> <p>Issue</p> <p>4. Traffic management in the future will most likely be better managed by computer-aided sensors and control systems. Since construction will take place so far in the future, the POD should include a provision to address embedded highway infrastructure (e.g., sensors, communications) in the final plan.</p>	<p>Refer to response to H.65-426. While the BLM reviewed the POD for reasonableness and completeness, the details of technical specifications and prediction of potential future highway design elements made available by advancing technology for the roadway are beyond the scope of the BLM's review of the POD submitted by UDOT.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-430	<p>4. Project Description 4.2 Roadway Design 4.2.1 Engineering Standards 4.2.1.1 Design Speed The Project would be designed for a 55-mph speed and posted with a 50-mph speed limit. Issue 5. Traffic on Red Hills Parkway, with its 50-mph speed limit, routinely exceeds 60 mph. It seems that a design limit of 55-mph is insufficient. In addition, since this construction will take place so distant in the future, future speeds enabled by self-driving vehicles should be planned.</p>	Refer to response to H.65-429.
H.65-431	<p>4.2.1.6 Intersection Location and Design The only full access intersection between Red Hills Parkway and Green Spring Drive would be located at Cottonwood Spring Road (also known as Old Dump Road or Turkey Farm Road), which would be constructed as an at-grade intersection. Issue 6. This seems to be an inadequate plan, as projected future traffic volumes would make it untenable.</p>	Refer to response to H.65-429.
H.65-432	<p>4.2.1.6 Intersection Location and Design The only full access intersection between Red Hills Parkway and Green Spring Drive would be located at Cottonwood Spring Road (also known as Old Dump Road or Turkey Farm Road), which would be constructed as an at-grade intersection. Issue 7. The intersection of Red Hills Parkway and Bluff/SR-18 should also be considered in the long-term (2050) design as this intersection will likely be overwhelmed by the projected future traffic volumes.</p>	Refer to response to H.65-429. Potential transportation issues at intersections not affected by the project could be considered by UDOT and other transportation agencies through a separate process in the future.

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H.65-433	<p>4.3 Permitting Requirements and Pre-Construction Surveys                      4.3.1 Permits and Approvals ·                      Non-federal land acquisitions would be required to complete the Northern Corridor. In addition to these non-federal ROW acquisitions, Table 2 lists permits, reviews, clearances, and approvals that may be required for the Northern Corridor.                      Issue                      8. Conserve Southwest Utah is making a statement for the record that they are an interested party mentioned in Table 2.</p>	<p>Comment noted. Conserve Southwest Utah may participate in the permits and approvals listed in this table as permitted by each permitting agency.</p>
H.65-434	<p>4.3 Permitting Requirements and Pre-Construction Surveys                      4.3.1 Permits and Approvals ·                      Non-federal land acquisitions would be required to complete the Northern Corridor. In addition to these non-federal ROW acquisitions, Table 2 lists permits, reviews, clearances, and approvals that may be required for the Northern Corridor.                      Issue                      9. Table 2 should define who grants which permissions using what criteria.</p>	<p>Table 2 in the POD lists the granting agency for each permit or approval. The criteria for granting permits is at the discretion of each granting agency and the appropriate laws, regulations, and policies. The additional information requested by the comment is not required based on BLM's ROW processing regulations and handbooks.</p>
H.65-435	<p>4.3 Permitting Requirements and Pre-Construction Surveys                      4.3.1 Permits and Approvals ·                      Non-federal land acquisitions would be required to complete the Northern Corridor. In addition to these non-federal ROW acquisitions, Table 2 lists permits, reviews, clearances, and approvals that may be required for the Northern Corridor.                      Issue                      10. There should be an independent oversight of the approval process.</p>	<p>Comment noted. Refer also to response to H.65-434.</p>
H.65-436	<p>4.4 Project Construction                      4.4.1 Construction Phasing                      Issue                      11. Currently anticipated timing of the phases should be defined. It is our understanding that phase would begin construction in 2040 and phase 2 in 2050.</p>	<p>Refer to response to H.65-429.</p>

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H.65-437	<p>6 Mitigation of Environmental Concerns Table 3. Design Features of the Project for Environmental Protection Issue 12. The table indicates plans are to be submitted and to whom, but it should also address the approval and issue resolution processes.</p>	Refer to response to H.65-429.
H.65-438	<p>6 Mitigation of Environmental Concerns Table 3. Design Features of the Project for Environmental Protection Issue 13. There should be sections on Fire Prevention and Suppression, Invasive Species Invasion Prevention, Garbage/Litter Prevention and Collection, Predator Invasion Prevention.</p>	Table 3 in the POD includes measures for Safety, Fire Protection, and Emergency Preparedness; Rehabilitation and Restoration; and Special Status Species that address the concerns raised in the comment.
H.65-439	<p>Air Quality and Climate Change/GHGs Do not conduct open burning along highway right-of-way without approval from the Utah Department of Air Quality (DAQ). Issue 14. Fires should not be allowed under any condition.</p>	Comment noted. No fires are proposed by the applicant. Any use of fire on BLM-administered lands would require authorization from the BLM.
H.65-440	<p>Appendix B Detailed Maps Issue 15. Wildlife pathways over/under the highway should be defined.</p>	Refer to response to H.65-429.

**0.3.25 Project Description**

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PROJ DESC - 01	The EIS improperly fails to provide an explanation for the identification of Alternative 3 as the agencies' preferred alternative.	CEQ regulations at 40 CFR 1502.14(e) direct that an EIS must identify the agency's preferred alternative(s). As explained in the BLM's NEPA Handbook (H-1790-1), "[t]he identification of a preferred alternative does not constitute a commitment or decision in principle, and there is no requirement to select the preferred alternative in the ROD. The identification of the preferred alternative may change between a draft EIS and final EIS." Thus, identification of a preferred alternative in a draft EIS is not pre-decisional or biased. There is no requirement for an explanation of the identification of a preferred alternative in an EIS. In contrast, as stated in CEQ regulations at 40 CFR 1506.2(b), the rationale for the selection of a preferred alternative must be disclosed in the ROD.
PROJ DESC - 02	If an alternative that crosses the Red Cliffs NCA is selected, then the applicant must construct the entire Northern Corridor in one construction phase to minimize construction impacts to MDT. Financial constraints is not an acceptable rationale for phasing construction over two phases.	Specific details of whether construction would be phased would be determined by the applicant during final design of the highway, if an action alternative is selected. The analysis contained in this EIS accounted for construction to potentially occur over two phases and accordingly developed mitigation measures to address potential impacts to all resources, including any effects to Mojave desert tortoise, that may result from construction phasing.
20-1	Would like to know where the new proposed highway is going to go in relation to proximity the Middleton Red Cliffs and Esclaria neighborhoods. Your current map made publicity recently does not show where the road connects to I-15 and through our area. [See attached map]	The T-Bone Mesa, UDOT Application, and Southern Alignments would connect to the Washington Parkway at Green Spring Drive. Once completed, the Washington Parkway will connect to I-15 at Exit 13. Please refer to the revised maps in Appendix B of the Final EIS that illustrate the connection of these alternatives to Green Spring Drive.
A.21-13	Cottonwood Springs Road is outside of UDOT's jurisdiction; adding culverts at these locations would be solely Washington County's undertaking. Accordingly, statements that imply UDOT would install culverts under Cottonwood Springs Road should be deleted. See, e.g., DEIS, pp. 2-20, 3-63.	The language in the Final EIS has been revised to clarify and state that Washington County would be responsible for the construction of culverts under Cottonwood Springs Road.

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A.20-1	<p>ES; ES-9; Table ES.5-1; Multiple cells within Table ES-5-1 and throughout the document. Comment: Under Alternatives 2, 3, 4, &amp; 5 (General Wildlife Cell and Vegetative Communities Cell) there is an inaccurate assertion that: “Impacts in the HCP Permit Area would be similar but likely more intense than Alternative 1 because of the potential increased pace of development”</p> <p>The assertion of a “potential increased pace in development” is unproven, inaccurate, and misleading. The pace of development and growth in Washington County is forecast by the Kem C. Gardner Policy Institute. The Institute’s forecasts for the region are based on natural increase trends, economic development trends, job creation policies and in-migration trends which, according to Natalie Gochnour, Associate Dean and Director of the Institute, are all unaffected by the existence of any single infrastructure project. The statement should be removed throughout the EIS document.</p>	<p>The Final EIS has been revised to clarify that Alternatives 2 through 5 are not anticipated to increase the pace in development in Washington County, as compared to Alternative 1. All references to increased development as a result of the action alternatives have been removed.</p>
A.20-6	<p>ES; ES-1; ES.1; Second Paragraph. Comment: The end of paragraph 2 should note: “The U.S. Congress’s intent to establish a northern corridor was further substantiated in the Oversight Field Hearing on January 22, 2016 (U.S. Congressional House Committee on Natural Resources 2016 Available at <a href="https://www.govinfo.gov/content/pkg/CHRG-114hrg98446/pdf/CHRG-114hrg98446.pdf">https://www.govinfo.gov/content/pkg/CHRG-114hrg98446/pdf/CHRG-114hrg98446.pdf</a>), stating that ‘the secretary of the Interior ... shall identify a route [referring to the Northern Corridor].’”</p>	<p>Congressional Hearings, such as the Oversight Field Hearing, are often used by members of Congress to provide a forum open to the public where information can be shared and opinions expressed concerning such items as legislation and/or implementation of legislation.</p> <p>BLM has developed the EIS in accordance with OPLMA and other applicable regulations. The Oversight Field Hearing transcript is not referenced in the EIS because the opinions expressed during the oversight hearing do not represent the full direction of Congress as outlined in OPLMA.</p>

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A.20-7	<p>2; 2-1; 2.1. Comment: The Alternative Development section ought to discuss a point made in both the public scoping meeting and in cooperating agency discussions regarding the effectiveness of each alternative to meet the transportation need (i.e. more effectively handling congestion and accommodating anticipated demand). Many public scoping questions centered around comparing how each alternative meets the travel demand. Some discussion to that end needs to be added to this section.</p>	<p>The traffic and transportation impacts of each alternative are discussed in Section 3.26.2.2 of the EIS, as well as discussed in further detail in Appendix J, the Highway Alternatives Development Technical Report.</p> <p>As stated in Section 1.3.1 of the EIS, the BLM’s purpose and need for action is to respond to UDOT’s application for a ROW grant to construct a roadway within the Red Cliffs NCA and Reserve. In contrast, the applicant’s objectives, as stated in Section 1.2.1 of the EIS, is to construct a new highway to reduce congestion, increase capacity, and improve east-west mobility between SR 18 and I-15 at MP 13. Although traffic improvements are the applicant’s objectives, the BLM’s purpose and need is separate from the applicant’s objectives and is to respond to the ROW application.</p> <p>The traffic and transportation impacts are discussed in Chapter 3 and the Highway Alternatives Development Technical Report, as opposed to in Chapter 2, because the BLM is not responsible for evaluating which alternative maximizes traffic benefits. Rather, the BLM was tasked with developing a range of reasonable alternatives that are feasible and respond to the applicant’s purpose and need, as well as must evaluate the potential impacts of each alternative. The effectiveness of each alternative to address traffic and transportation concerns is appropriately covered in Chapter 3 and the Highway Alternatives Development Technical Report, as opposed to in Chapter 2.</p>
A.20-8	<p>2; 2-3; 2.2.2 &amp; 2.2.3 &amp; 2.2.4. Comment: Change wording to read: The alignment would connect to Green Springs Drive and to Washington Parkway on the east, which connects directly to the MP-13 Interchange of I-15.</p>	<p>Green Spring Drive is the logical termini for the Northern Corridor, which would connect directly to I-15. Washington Parkway is under construction and the connection point for the Northern Corridor is the Washington Parkway at Green Spring Drive. Chapter 2, Section 2.2 of the EIS has been revised to state that the Northern Corridor will connect to the Washington Parkway at Green Spring Drive. The maps contained in Appendix B of the EIS have been revised to show the connections of Alternatives 2 through 4 to the Washington Parkway at Green Spring Drive (refer to response to 20-1).</p>

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A.20-9	2; 2-4; 2 .2.6. Comment: The One-Way-Couplet alternative would also require a major reconstruction of portions of the asphalt where grade differentials currently exist between the east-bound and west-bound lanes, removal of and reconfiguring of exiting drainage infrastructure Removal and relocation of the SunTran Transit Transfer Station would also be required along with a re-working of the entire transit route patterns.	All of the proposed Northern Corridor alternatives have been prepared based on preliminary engineering and to a comparable level of detail for analysis in the EIS. The estimated range of costs for each of the proposed Northern Corridor alternatives have been added to the EIS in Section 2.2. Potential impacts to transit routes and the SunTran Transit Transfer Station are discussed in Section 3.26.2.2 of the EIS.
A.20-13	App. J Highway Alt. Dev. Tech Report; 1; 1.1. Comment: The Alternatives Development Technical Report should reference Oversight Field Hearing on January 22, 2016 (U.S. Congressional House Committee on Natural Resources 2016 Available at <a href="https://www.govinfo.gov/content/pkg/CHRG-114hrg98446/pdf/CHRG-114hrg98446.pdf">https://www.govinfo.gov/content/pkg/CHRG-114hrg98446/pdf/CHRG-114hrg98446.pdf</a> ), stating that 'the secretary of the Interior ... shall identify a route [referring to the Northern Corridor].	Refer to response to A.20-6.
A.47-1	It does appear to us that the two actions, renewal of the HCP and the environmental review of the Utah Department of Transportation (UDOT) application for routing of the highway in the Northern Corridor have been conflated, or integrated. We believe each is a stand-alone action, with the highway right-of-way reviewed under Section 7 of the Endangered Species Act (ESA); and the HCP, as the written, considered, and approved under Section 10 of the ESA. The criteria for mitigation for each action is different. The DEIS should not apply the Section 10 requirement, "to the maximum extent practicable" to the UDOT right-of-way proposed mitigation. The Section 7 requirement, "reasonable and prudent" appears the appropriate standard to apply, and the Zone 6 proposed addition to the Reserve administration appears to more than meet this requirement.	As described in Section 3.1.2 of the EIS, the USFWS evaluated reasonable and prudent alternatives, measures, and other terms and conditions if the BLM initiates formal ESA Section 7 consultation on a Northern Corridor alternative that impacts the Reserve. In contrast, as described in Section 1.3.2 of the EIS, the USFWS is reviewing the Amended HCP to ensure conservation of Mojave desert tortoise is achieved pursuant to Section 10 of the ESA. The appropriate standards pursuant to Section 7 of the ESA have been applied to evaluation of the impacts of the Northern Corridor, while the mitigation standards pursuant to Section 10 of the ESA have been applied to the review of the Amended HCP. Given that the potentially impacted habitat is located within the Reserve and the Red Cliffs NCA, the proposed mitigation measures exceed what the BLM would typically propose on lands that do not carry these special designations.

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A.25-2	<p>At the meeting it was mentioned that the NC through the protected area had been part of the deal ever since Red Cliffs Desert Reserve was established in 1996. Not true! Minutes we have from steering committee meeting minutes in the 90s leading to the Reserve’s creation show there was never an agreement. And, in 2006 when Senator Bennett and Congressman Matheson were pushing the 2006 Washington County Growth &amp; Conservation Act, Washington County Habitat Conservation Advisory Committee meeting minutes clearly show that a line on a map was never agreed to by the HCAC. In fact, the meeting minutes plainly reveal that Commissioner Gardner and Mayor McArthur came to the HCAC for approval to place their preferred road alignment on a map and were rejected. The NC was not approved in the original Habitat Conservation Plan (HCP) which says no new roads! Even a Red Cliffs Desert Reserve brochure we have that addresses common questions and which was “funded” by the county answers the question: “Will there be a highway through the middle of the reserve between St. George City and Washington City? Their answer: “The HCP does not permit a new highway through the reserve. The recently improved “Red Hills Parkway,” approved as a 4-lane road (also called Skyline Drive or the Northern Corridor), was allowed under the HCP; no others are permitted.”</p>	<p>OPLMA Subtitle O, Section 1977 directs the Secretary of the Interior to develop a comprehensive travel management plan for the land managed by the BLM in Washington County and, in accordance with FLPMA, “in developing the travel management plan, the Secretary shall—(A) in consultation with appropriate Federal agencies, State, tribal, and local governmental entities (including Washington County and St. George City, Utah), and the public, identify one or more alternatives for a northern transportation route in the County” (P.L. 111-11 Sec. 1977(b)(2)(A)).</p> <p>To meaningfully consider a northern transportation corridor as part of a future travel management planning process, the BLM considered several alternative Northern Corridor transportation routes as part of this EIS in response to the UDOT ROW application. Six alternatives were carried forward for analysis in the EIS. The BLM is using the NEPA process to analyze the potential impacts of each alternative, to evaluate whether the ROW application, or other alternatives within the NCA, is consistent with the statutory purposes of the Red Cliffs NCA, and to consider whether it is necessary to amend the Red Cliffs NCA RMP to accommodate a ROW in the previously designated avoidance zone. This analysis will inform the BLM’s decision to grant or deny UDOT’s application or select a different alternative. The decision made for a northern corridor through this process will be used, as applicable, in a future travel management plan consistent with OPLMA.</p>
A.25-4	<p>As noted previously, high population growth is nothing new in Washington County. It should not be a surprise to UDOT and other planners who have known a highway through Red Cliffs is not acceptable. Other options should have been thoroughly and “fairly” evaluated/considered by them prior to submitting their ROW application for a highway through Red Cliffs. They have had options but have decided to choose a route that does not support the purposes of Red Cliffs.</p>	<p>UDOT as the ROW applicant is not required to consider alternatives to its ROW application. However, the BLM’s purpose and need for action is to determine whether to grant a ROW to UDOT in response to its application. Pursuant to NEPA, the BLM considered the potential impacts of the proposed ROW and a range of reasonable alternatives to the proposed action, evaluated whether the ROW application, or other alternatives within the NCA, is consistent with the statutory purposes of the Red Cliffs NCA, and considered whether it is necessary to amend the Red Cliffs NCA RMP to accommodate a ROW in the previously designated avoidance zone. This analysis will inform the BLM’s decision to grant or deny UDOT’s application or select a different alternative.</p>

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A.25-18	<p>It is DEIS information such as what’s emphasized in the above 2.2.7 Plan of Development excerpt that is troubling. When agencies use “will” rather than “would,” it seems to make it clear that the “fix” is already in. If it said “would be refined through the NEPA and project design process” then we might feel more comfortable about there being some opportunity between now and the FEIS to have a reasonable alternative decision. However, in any case to not have the POD complete for this DEIS review does not allow citizens to have all information to consider. UDOT and other involved entities have had a lot of time to come up with this plan and now it’s not complete for our review?</p>	<p>It is standard practice for the BLM to rely on a Draft POD to support the NEPA analysis for a ROW application. Although it is a draft document, the POD in its current form includes information regarding design, construction, and maintenance of the project, including construction procedures, environmental requirements, project design criteria, and measures that would be implemented by UDOT to reduce the environmental effects of the project. The BLM requires that the POD contain sufficient information to inform the environmental analyses, support BLM decision-making, and apply site-specific measures to minimize environmental impacts. The BLM has determined adequate design information is contained in the draft POD to conduct a rigorous comparison and evaluation of the impacts of the alternatives in compliance with NEPA (40 CFR 1502.14 and 40 CFR 1502.16).</p> <p>Additionally, UDOT revised the preliminary POD between the Draft and Final EIS. The revised preliminary POD submitted to BLM by UDOT contained additional design features for the Proposed Action.</p> <p>If the BLM selects a Northern Corridor alternative where a new ROW or a ROW amendment would be necessary, the BLM will require the preparation of a Final POD for this alternative before the issuance of a Notice to Proceed with construction. The Final POD would also identify the site-specific application of design features and mitigation measures identified in the ROD.</p>
A.25-20	<p>Also, 2.2.9 states “BLM would require.” It should state “BLM will require.”</p>	<p>The language included in the EIS appropriately uses “would” to indicate the application of avoidance, minimization, and mitigation measures are conditioned upon selection of an action alternative. The use of “will” would indicate avoidance, minimization, and mitigation measures will be implemented in the future, which suggests selection of an action alternative has already been made. Rather, the BLM is using this NEPA analysis to inform its decision whether to grant or deny UDOT’s application or select a different alternative.</p>

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A.25-21	2.2.9.2 Mitigation Measures and Terms and Conditions: “Completion of Final POD” should read “would require the completion of a Final POD and BLM review and approval prior to the initiation of construction.” I have no doubt that if UDOT submits a Final POD and the agency has not had time to review and approve, or disapprove, that UDOT would move ahead with construction. This should not be allowed, and the agency should do anything within its power to stop this from happening.	The language in the Final EIS has been revised to state, “UDOT would not begin construction until the Final POD is approved by the agency.”
A.25-22	We are also concerned that the size of the project would require new ROW access roads for construction, operation, and maintenance.	Section 4.4.3 of the Draft POD describes the access that is expected during construction, which would be located within the approved ROW. Any potential impacts due to access roads are within the proposed ROW and have been addressed in the analysis in the EIS.
A.25-25	Regarding the purchasing of inholdings in the existing Reserve and proposed Zone 6, it has taken twenty-five years to get us to where we are now with purchases and exchanges and there is still much to do in the existing Reserve. How long would it take to do the purchases in Zone 6? Make sure purchases in Zone 6 are planned!	SITLA has indicated the agency’s support for the proposed Washington County HCP and the agency’s intent to become a signatory to the associated HCP Implementation Agreement if an ITP is issued to Washington County by the USFWS. As described in the Washington County Amended HCP, the intention of the HCP Partners is for the non-Federal lands within proposed Reserve Zone 6 to be acquired by the BLM or other conservation entity for long-term conservation purposes.

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A.51-4	<p>The Council does not recognize Alternatives 2 (T-Bone), 3 (UDOT's original Northern Corridor), or 4 (Southern Alignment) as being substantially different, as all three "alternatives" violate the precept of the original HCP, Omnibus Public Land Management Act of 2009, and other agreements predicated on protecting the Red Cliffs Desert Reserve in exchange for developing tortoise habitats since 1996. Those agreements still require that the Reserve be managed in perpetuity, which would be violated by constructing the new freeway.</p>	<p>Washington County has submitted an Amended HCP to the USFWS. Alternatives 2 through 4 do not violate the original HCP because the 1995 HCP would be supplanted by the Amended HCP if Alternatives 2 through 4 were selected. Refer to response to A.25-2. OPLMA also states, "the Secretary shall only allow uses of the National Conservation Area that the Secretary determines would further a purpose described in subsection (a)."</p> <p>The purposes of the NCA described in subsection (a) are:</p> <ul style="list-style-type: none"> <li>• to conserve, protect, and enhance for the benefit and enjoyment of present and future generations the ecological, scenic, wildlife, recreational, cultural, historical, natural, educational, and scientific resources of the National Conservation Area; and</li> <li>• to protect each species that is – (A) located in the National Conservation Area; and (B) listed as a threatened or endangered species.</li> </ul> <p>The BLM's procedures for evaluating a proposed use's conformance with the designating legislation for an NCA are described in BLM Manual 6220 (2017b), which states, "[t]hrough the NEPA process, the manager with decision-making authority for a Monument or NCA will evaluate discretionary uses and will analyze whether the impacts of the proposed use in the Monument or NCA or similarly designated area are consistent with the protection of the area's objects and values. As part of this analysis, the manager will consider the severity, duration, timing, and direct and indirect and cumulative effects of the proposed use. When approving a proposed action, the decision must document how the activity is consistent with the proclamation or designating legislation." If the BLM decision maker selects an alternative that crosses the NCA, the ROD would identify how the alternative is consistent with the designating legislation.</p>

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A.51-26	<p>2 Comment: The Council does not recognize Alternatives 2 (T-Bone), 3 (UDOT's original Northern Corridor), or 4 (Southern Alignment) as being substantially different, as all three "alternatives" violate the precept of the original HCP, Omnibus Public Land Management Act of 2009, and other agreements predicated on protection of the Red Cliffs Desert Reserve in exchange for developing tortoise habitats since 1996. We believe that these three alternatives are fatally flawed as each one violates the conservation agreement established in 1996 resulting in issuance of the original ITP. Given the tortoise declines throughout the range since 2003 (Allison and McLuckie 2018; in 2003 in response to drought and in 2005 in response to wildfire) and documented impacts within the Reserve (including the Turkey Farm Road Fire and Cottonwood Trail fire in July 2020), not only should the Northern Corridor not be developed in the Reserve, we believe that Zone 6 should still be established as a satellite reserve and that it include all of the Red Bluffs ACEC, not just the eastern half, to accomplish the conservation balance that has not resulted since implementation of the 1995 HCP.</p>	<p>Refer to response to A.51-4. Amendments to the Red Cliffs NCA RMP or the SGFO RMP outside of those triggered by Alternatives 2 through 4, such as the creation of Zone 6 independent of the construction of the Northern Corridor, is outside the scope of this EIS.</p>
H.65-159	<p>But the DEIS defers important discussion of impacts, mitigation measures and analysis that should be a part of this review when the public can have input. Instead, the DEIS defers this analysis to a time after approval, and after the public process. A Stormwater Pollution Prevention Plan will be prepared at some unspecified later date, and only generalized Best Management Practices are enumerated in a table in Appendix O-10 of the DEIS. No discussion of how BMPs attempting to prevent disturbed soil will stop erosion into waterways, specifically to Critical habitat units for fish, or how stormwater prevention plans will protect nearby riparian areas that harbor listed bird species. No specific stormwater control designs are included for the NCH.</p>	<p>The public has been apprised of the proposed mitigation measures in Appendix D of the EIS during the EIS public comment period.</p> <p>Preliminary design for stormwater control and management is contained in the Draft POD in Section 4.2.8. Additional information regarding stormwater control and management would be included in the Final POD based upon final design, if an action alternative is selected.</p> <p>A Stormwater and Pollution Prevention Plan (SWPPP) would be developed after the conclusion of the NEPA process, if an action alternative is selected, as part of final design of the roadway and prior to the commencement of construction. The SWPPP is not a public document; its development is required pursuant to the Clean Water Act's National Pollutant Discharge Elimination System program. The SWPPP will describe all efforts to prevent stormwater contamination, as well as specific sediment and erosion control methods.</p>

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H.65-160	A Blasting Plan is deferred until after project approval, after the NEPA process has completed. No discussion is made of how blasting in the Red Cliffs Reserve will impact Special Status Wildlife and Fish Species or listed species. DEIS at D-13. This needs analysis.	It is standard practice to develop a Blasting Plan after the conclusion of the NEPA process if an action alternative is selected, as part of final design of the roadway and prior to commencement of construction. The potential impacts to special status wildlife were considered as part of the construction activities for Alternatives 2 through 4 in Section 3.5 of the EIS.
H.65-161	Noxious Weed Management Plan is deferred until after the environmental public review is over, with no public input.	It is standard practice to develop a Noxious Weed Management Plan after the conclusion of the NEPA process if an action alternative is selected, as part of final design of the roadway and prior to commencement of construction. This Plan and additional information regarding noxious weed management would be included in the Final POD, if an action alternative is selected. The Noxious Weed Management Plan is not a public document that involves public review and input but would be reviewed and approved by the BLM prior to construction.
H.65-162	A Hazardous Materials, Hazardous Waste, and Spill Prevention Plan is deferred until after project approval. Ibid. This analysis should be done in the Final EIS because water pollution from highway construction could significantly impact sensitive and threatened fish in adjacent downstream waters and Critical Habitats.	It is standard practice to develop a Hazardous Materials, Hazardous Waste, and Spill Prevention Plan after the conclusion of the NEPA process if an action alternative is selected, as part of final design prior to commencement of construction. This Plan and additional information regarding hazardous materials, hazardous waste, and spill prevention would be included in the Final POD, if an action alternative is selected. The potential impacts to sensitive and threatened fish as a result of construction activities were considered and described in Section 3.5 of the EIS.

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A.51-69	<p>45 3-144 3.19 2.5-15</p> <p>Comment: We understand that the BLM is actively planning for a Western Corridor along the western boundary of the proposed Zone 6 satellite reserve but fails to divulge this in the DEIS (a “Western Corridor Connector” is identified on page 3-179 but is not mapped; see Comment 58 below with regards to enhanced mapping requests). We ask that the rationale for the current western boundary of Zone 6 be described in the Final EIS section corresponding to Section 3.19 of the DEIS.</p>	<p>The BLM has no pending application for a Western Corridor. The BLM’s purpose and need for action is to respond to UDOT’s ROW application and decide whether to amend the Red Cliffs NCA RMP and the SGFO RMP. The boundaries for Zone 6 were proposed by Washington County as part of its Amended HCP. The rationale for the applicant’s boundaries of proposed Zone 6 is beyond the scope of the agencies’ role and responsibilities for preparation of this EIS.</p>
H.65-450	<p>Proposed Action: The NOI’s proposed action should define the primary action in addition to the secondary actions that result from it. The DEIS should clarify the primary action, and should include the missing related secondary actions. Addressed in the DEIS: No.</p>	<p>Pursuant to 40 CFR 1508.22, the BLM and USFWS described the four proposed actions in the notice of intent: (1) Whether the BLM will approve a 1.75-mile ROW section of the approximately 4-mile long Northern Corridor project that crosses the 62,000-acre Red Cliffs Desert Reserve and the 45,000-acre congressionally established Red Cliffs NCA; (2) Whether the BLM will amend the Red Cliffs NCA RMP to allow for a transportation ROW and/or corridor within the NCA; (3) Whether the BLM will amend the SGFO RMP to modify management on approximately 6,800 acres outside the Reserve and NCA to offset the ROW impacts; and (4) Whether the USFWS will issue an associated ITP for the Mojave desert tortoise for specific land use and land development activities in Washington County.</p> <p>The EIS describes ancillary (secondary) actions related to the proposed actions. Refer to Chapter 3 of the EIS.</p>
H.65-486	<p>13-Impact due to NCH Phasing: The DEIS must address impacts related to the NCH being built in phases, the roadways connected to it, and plans for future infrastructure including utilities.</p> <p>a. Associated infrastructure and future plans to widen the NCH would cause additional habitat loss. UDOT’s Plan of Development states that: "At full build-out, the roadway would be an approximately 4.5-mile-long, four-lane divided highway with two 12- foot-wide travel lanes in</p>	<p>Refer to response to PROJ DESC-02. As stated in Section 2.2 of the EIS, Alternatives 2 through 4 would be a multi-lane divided highway with common features, as described in the POD. These features and the up to 500-foot ROW to accommodate these features were used in the impact analysis in this EIS. The EIS does address the impacts of the roadway, including construction of these common features, such as the median, drainage swales, bicyclist and pedestrian trails, and associated signage, as described in the POD.</p>

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	<p>each direction. Other features would include a median, drainage swales, bicycle and pedestrian trails, and associated signage."</p> <p>b. The Washington City Master Transportation Plan shows the Washington Parkway Extension (which would connect to the NCH) being 6 lanes at full build-out. If the NCH was likewise increased from 4 to 6 lanes, that would cause major damage.</p> <p>c. We note that there are no provisions for either underground or aboveground linear facilities in the project description. The DEIS must disclose plans for future utilities.</p> <p>d. Roadway projects associated with the NCH including improvements to Cottonwood Road. Addressed in the DEIS: No. The DEIS does not address the phased nature of the NCH. It says that the "UDOT Application Alignment, or Southern Alignment may be phased by building one lane in each direction, with subsequent phases adding another lane." (DEIS Vol. 2 pg. 2-5). This incorrectly assumes that if a 500' ROW is granted, no additional stress or adverse impacts will be experienced by the MDT during different phases of construction. Indirect impacts associated with the construction of additional highway lanes (noise, vibration, dust, human access, toxicants, etc.) will be reintroduced at each phase of construction.</p> <p>The DEIS fails to address the Washington City Transportation Master Plan which shows the NCH will be 6 lanes at full build out. The DEIS discloses that under Red Cliffs NCA RMP Amendment Alternative C, utilities would be granted in the NCH ROW but fails to adequately address the heightened risk to MDT.</p> <p>Importantly, the DEIS says that the NCH will include "a new at-grade intersection with traffic signals at Cottonwood Springs Road (also known as Old Dump Road or Turkey Farm Road); this connection would fit within the 500-foot ROW" (DEIS Vol. 2 pg. 2-5). Placing an intersection at Cottonwood Springs Road would allow vehicle access to busy shopping and business centers in St. George and Washington City. It's</p>	<p>Any future plans to further expand the Northern Corridor roadway, if an action alternative is selected and constructed, is a separate action from the proposed action contained in UDOT's ROW application submitted to the BLM and being analyzed in this EIS.</p> <p>Alternative C of the Red Cliffs NCA RMP Amendment would permit future development of aboveground and buried utilities; however, no applications to construct any utilities have been received by the BLM nor are proposed at this time. Any future utility applications within the Red Cliffs NCA would be subject to further environmental review pursuant to NEPA, the NHPA, and ESA as appropriate.</p> <p>Potential impacts to Mojave desert tortoise are described in Section 3.5.2 of the EIS. This discussion states, "[n]o additional habitat loss would be associated with Alternative C, but because the utility development could be at a different time than highway construction, additional take of desert tortoise could occur in bridged washes from the loss of burrows, relocation of desert tortoises, and loss of undetected eggs, hatchlings, juveniles, and adults. New utilities may cause disturbance to Mojave desert tortoises from noise and vibration, the presence of construction workers, and facilitating the spread of nonnative vegetation, which could occur each time an additional utility is developed or maintained in the ROW."</p> <p>If an action alternative is selected, its design will be refined and finalized in the Final POD. However, the draft POD, including the intersection at Cottonwood Springs Road, has been designed to a sufficient point to inform the environmental analyses, support BLM decision-making, and apply site-specific measures to minimize environmental impacts. The BLM has determined adequate design information is contained in the Draft POD to conduct a rigorous comparison and evaluation of the impacts of the alternatives in compliance with NEPA (40 CFR 1502.14 and 40 CFR 1502.16).</p>

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	important to note that Cottonwood Springs Road is steep, narrow and winding below its intersection with the proposed NCH. To have this section of the road function as a major artery, approximately 1 mile of road south of the NCH would have to be straightened and widened. The impacts of this project to MDT and their critical habitat in Zones 2 and 3 would substantially increase the road effect zone and must be evaluated in a separate environmental impact statement.	
H.65-574	b. The DEIS should disclose the appraised and/or assessed value of SITLA land in the Red Cliffs Desert Reserve and in Zone 6. Addressed in DEIS: No	The BLM's purpose and need for action is to respond to UDOT's ROW application and decide whether to amend the Red Cliffs NCA RMP and the SGFO RMP. The boundaries for Zone 6 were proposed by Washington County as part of its Amended HCP. The value of the land contained in the applicant's boundaries of proposed Zone 6 is beyond the scope of the EIS.
H.65-581	i. The DEIS should describe how the applicant plans to secure ownership of the private inholdings through which the NCH would be routed. Addressed in DEIS: No	The POD includes the ROW processes that would be used by the applicant to acquire the necessary ROW across private lands.
H.65-582	j. The DEIS should include the cost of acquisition of private land for the NCH ROW. Addressed in DEIS: No	The Final EIS includes cost estimates for each alternative alignment, which accounts for and includes the cost of acquisition of any private land necessary for each ROW alignment.
H.65-583	k. The DEIS should disclose the exact acreage of SITLA and private inholdings that have been traded out, exchanged, or acquired in the Reserve/NCA since 1995 and the cost of these transactions. These transactions have been facilitated by or paid for with tax payer money, and routing a highway through land acquired for conservation purposes is a disservice to the American taxpayer. Addressed in DEIS: No	The BLM's purpose and need for action is to respond to UDOT's ROW application and decide whether to amend the Red Cliffs NCA RMP and the SGFO RMP. Previous land exchanges within the Reserve or Red Cliffs NCA and their costs are outside the scope of analysis of this EIS.
H.65-607	<p><b>8- Cost-Benefit Analysis:</b> The DEIS must include cost-benefit analysis of the NCH and must address the following concerns and issues listed below in items 1 - 6: (119-121) Addressed in DEIS: No</p> <p>1. Cost-benefit analysis of the NCH inside the Red Cliffs NCA versus road improvements outside of the NCA.</p> <p>2. The DEIS must disclose the amount of federal funds that would or may be used to construct the NCH. We are concerned that UDOT may use a combination of comingled</p>	As stated in Table 1.5-2 in the EIS, a cost-benefit analysis was not performed for the alternatives because a cost-benefit analysis is not necessary to make a reasoned choice between alternatives. As described in 40 CFR § 1502.22, under NEPA, the weighing of the merits and drawbacks of the various alternatives in an EIS need not be displayed in a monetary cost-benefit analysis and agencies should not do so when there are important qualitative considerations. Furthermore, cost-benefit analyses are not required by either the BLM or USFWS'

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	<p>funds in a manner that makes it difficult to determine whether or how much federal funding may be used for the NCH. We believe that it is important to know whether or how much federal funds may be used for the NCH for several reasons. For example, the DOT and FHWA have a legal obligation to not use federal highway funds in a manner that may harm so-called Section 4(t) conservation lands unless no feasible alternatives exist. We believe that the Red Cliffs NCA/DR clearly qualifies for protection under Section 4(t), and therefore we need to know whether any federal highway funds may be used for the NCH.</p> <p>3. Cost Calculation for the Northern Corridor Highway: The DEIS must account for the full cost of the proposed NCH, which includes, but is not limited to the following:</p> <p>4. Known Costs</p> <p>The cost of the Northern Corridor Highway, built in 2 phases with interchange and ROW application support, totals at least \$135.6 million according to the DMPO's 2019-2050 RTP.</p> <ul style="list-style-type: none"> <li>• The cost of the Washington Parkway Extension, without which, the Northern Corridor Highway would not function in moving east-west traffic across northern St. George. This cost, according to the DMPO's 2019-2050 RTP, is \$4.6 million.</li> <li>• The cost of upgrading Cottonwood Springs Road and linking it to the Northern Corridor, which, according to the DMPO's 2019-2050 RTP, is \$8.64 million.</li> <li>• Total cost of Northern Corridor-related projects is \$144,240,000.</li> <li>• Inflation must be factored in.</li> </ul> <p>5. Unknown Costs</p> <ul style="list-style-type: none"> <li>• The cost of establishing Zone 6 Mitigation, including <ul style="list-style-type: none"> <li>– Fencing</li> <li>– Law Enforcement</li> <li>– Outreach and Education</li> <li>– Additional Staff</li> <li>– Closure of trails</li> </ul> </li> </ul>	<p>NEPA requirements or other applicable laws, regulations, or agency policies.</p> <p>Although cost is not a factor considered in the selection of the preferred alternative, the analysis of the impacts of each alternative contained in the EIS is interdisciplinary and considers the potential impacts on many resources and resource uses. BLM and USFWS decision makers will consider impacts to all resources as described in the EIS when making the final agency decisions for the proposed actions.</p> <p>If an action alternative is selected and the project advances to the construction phase, the funding source that would be used to construct the Northern Corridor would be identified by the applicant after the ROD.</p> <p>The Final EIS has been revised to include a range of estimated costs for each of the Northern Corridor alternatives. Cost estimates are based on preliminary engineering design and in comparable level of detail for each of the Northern Corridor alternatives. Cost estimates would be refined if the UDOT Application Alignment is identified as the selected alternative in the ROD and the applicant moves forward with the project into final design.</p> <p>The costs of the Washington Parkway Extension and upgrades to Cottonwood Springs Road are not included in the estimated cost of each of the Northern Corridor alternatives because these are separate projects outside the scope of this EIS. Refer to response to H.65-574.</p>

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	<ul style="list-style-type: none"> <li>– Major Clean-up and habitat restoration</li> <li>• The yearly cost of managing and maintaining proposed Zone 6 mitigation from year 1 to year 25 (proposed HCP duration)</li> <li>• The cost of acquiring the approximately 3,200 acres of SITLA land in Zone 6               <ul style="list-style-type: none"> <li>– The DEIS must disclose the appraisal and assessed value of the SITLA acres in Zone 6</li> </ul> </li> </ul>	

**0.3.26 Public and Stakeholder Engagement**

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<b>Public-01</b>	The BLM and USFWS should have provided more time for comment. Instead of allowing a normal 90-day period for scoping comments, the BLM only allowed 30 days which included a two-week holiday period. Notice should have been directed to individual property owners that would be affected, not just noticed in a paper or found on a website.	The agencies satisfied regulatory requirements and departmental policies in providing 30 days for public scoping. The second opportunity for public comments, after the release of the Draft EIS, included a 90-day period for public comments.
H.23-1	The residents of Washington County haven't been completely informed about option 5 and 6.	Section 4.3 describes the distribution of the Draft EIS. Details regarding alternatives, including Alternatives 5 and 6 and their potential impacts, were provided in the Draft EIS. The BLM and USFWS published the Notice of Availability of the Draft EIS in the <i>Federal Register</i> on June 12, 2020. The publication of the NOA began a 90-day public comment period that ended on September 10, 2020. In July, the BLM and USFWS hosted two online public meetings to provide an overview of the project and respond to questions from the public. The BLM notified the public of these meetings via the project website and a news release. The online meetings were held on July 16 and 21, 2020. The materials are available on <a href="#">BLM's ePlanning website</a> .
A.39-1	Failure to provide details on Zone 6 hike/bike trail closures is unacceptable: The DEIS should have included full closure details on trails, but it did not. When we called the BLM to find out exactly what MTB trails would be closed, they didn't know. We were referred to Cameron Rognan at the County. He also wasn't sure and said the decision will not be made yet. This is unacceptable. The public can't give informed input when (a) they aren't notified (see section D below), and (b) they don't have access to full details. The BLM can't wait to decide what trails to close until after the public comment period has ended; it has to be done ahead of public comment.	Decisions on trail closure are being addressed through BLM's travel management planning process, which is ongoing and separate from this project. A draft Travel Management Plan will be made available for public review and comments; decisions will not be made without public input. Refer to the BLM's website for additional information regarding the planning process: <a href="https://www.blm.gov/programs/recreation/recreation-programs/travel-and-transportation/utah">https://www.blm.gov/programs/recreation/recreation-programs/travel-and-transportation/utah</a> .

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A.39-2	Failure to provide adequate public notice regarding Zone 6 proposals is unacceptable. It should have been treated as a separate issue: What has been done to notify locals about the bans & closures proposed for Zone 6? What about all our visitors (winter & other seasons), that have enjoyed Zone 6 for generations—do they know? There are not even any signs or notices at the sites. The proposed closures in Zone 6 are so devastating that they should have had their own public notice process, separate from the Corridor.	The proposal to establish Reserve Zone 6 is a related action and must be addressed to avoid segmentation of project effects. Public comments on the proposed SGFO RMP Amendment will be considered before a decision is made on management of the proposed Reserve Zone 6 lands. While the Preferred Alternative identified by the agencies in the Draft EIS does include new restriction on certain uses, the land is not closed to public use. Also refer to response to A.39-1.
A.39-7	Even if the Washington Parkway study had been clear, the public would still have been uninformed since the 1/31/19 open house & public comment period was improperly noticed. Please note that: i. Washington City has always used its monthly newsletter (mailed out with utility bills) to provide public notices for projects (for ex: Telegraph St. changes, Wash. Field Rd. changes, new airport changes, MP11 changes, etc.) But their newsletter has never contained a single notice of public input for Washington Parkway, not even for the 1/31/19 open house and public comment period. ii. As late as 1/17/19, there was no mention of the 1/31/19 open house on the city website. iii. Affected residents were never notified of the open house & public comment period by mail or in any other personalized way.	As described in the EIS and in Table 1.5-2, UDOT completed appropriate NEPA reviews for the Washington Parkway project, which is a separate action and beyond the scope of this EIS.

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A.39-19	<p>Leaders have been negligent: Our 1/6/20 public comments covered 5 pages of instances where city, county, &amp; other leaders have failed residents here, allowing widespread and total confusion to persist (see Att. 2). These acts of negligence include: –no mention of the Corridor in the PEC Study or the poorly-noticed 1/31/19 open house on Washington Parkway</p> <ul style="list-style-type: none"> <li>• still no mention of the Corridor to-date on the Washington City (WC) website or its maps, which show Washington Parkway dead-ending at Concord</li> <li>• still no mention of the Corridor to-date on the Washington County website</li> <li>• employees at WC offices continued to give out false information about Washington Parkway as late as 4/17/18</li> <li>• public inability to access the Transportation Master Plan (TMP) on WC websites as late as 1/31/19</li> <li>• no mention of the Corridor or Washington Parkway hearings in any WC newsletter ever (nor any noticing ever sent to property owners within 300’ of Washington Parkway)</li> <li>• no mention of TMP changes to Washington Parkway in any WC newsletter ever</li> </ul>	Refer to responses to A.39-7 and A.25-61.
H.65-91	<p>The DEIS documentation released in June on eplanning was deficient. First, the eplanning site did not provide the Draft Biological Report (USFWS 2020). We requested it in early August and received it August 23, 2020. This important document should have been available for public review at the start of the comment process for careful scrutiny and review. It contains important information necessary for informed analysis and decision-making.</p>	<p>The agencies satisfied regulatory requirements and departmental policies in providing documentation to the public in the public release of the Draft EIS and availability of documents on the BLM eplanning project webpage and as described in Section 4.4 of the EIS. The Draft Biological Report is part of the project record and can be made available upon request to the USFWS.</p>

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H.65-92	<p>The DEIS references, but fails to share, tools -- include the resource equivalency analysis and spatial decision support model -- that are critical to understanding NCH impacts to the threatened Mojave desert tortoise. DEIS at 3-57 ("The USFWS is exploring various tools to assist in evaluating the impacts of the BLM decisions and the proposed conservation measures to replace the resources potentially impacted by the ROW and RMP revisions.") BLM has not responded to a request for these tools made on 8-20-20. The DEIS also states that the agencies have not yet decided which of these (or other) models they might use to aid their calculations of MDT harm and gain in evaluating the proposed actions. Absent this information it is not possible for the public to comment on the potential mechanisms for calculating habitat modification and take or to understand the impacts of the proposed actions.</p>	<p>The USFWS considered using a Resource Equivalency Analysis to evaluate relative habitat conditions as part of the assessment of effects to Mojave desert tortoises and the HCP conservation program from the proposed Northern Corridor. It was determined the Resource Equivalency Analysis was not well suited for this analysis because underlying assumptions relied on some level of subjectivity and created an unreasonable level of uncertainty that could not be reconciled in the time allowed. Reference to the Resource Equivalency Analysis has been deleted in the Final EIS in "Other Potential Analysis Tools" in Section 3.5.2.1.</p>
H.65-93	<p>Finally, the DEIS cites repetitively to USFWS 2019 which is a workshop held in 2019. No written materials associated with that workshop are available in the DEIS materials or on eplanning.</p>	<p>The agencies satisfied regulatory requirements and departmental policies in providing documentation to the public in the public release of the Draft EIS and availability of documents on the BLM eplanning project webpage and as described in Section 4.4 of the EIS. The USFWS 2019 citing in the EIS refers to the minutes of the 2019 workshop, which are part of the project record.</p>
A.25-61	<p>Finally, we have to close by stating how concerned we are with how the county—the driving force behind the application for a ROW through Red Cliffs—has been forcing their position on the Washington County public. We understand their position and the fact that they want it, but we pay taxes, too, and we do not share their position. For them to post a sign up on the website, that we help fund through our taxes, encouraging citizens to support their preferred alternative with limited and erroneous information like this: The preferred alternative adequately addresses Washington County's transportation needs while protecting significantly more Mojave Desert Tortoises in both the proposed expansion area and the existing reserve. The three alternatives to the south of the preferred alternative would each be more expensive, not meet our transportation needs, and would negatively impact our downtown and Pioneer Park areas. (emphasis added) The DEIS does not support these contentions by the county. This is some similar information that was emailed by the county</p>	<p>The BLM and USFWS have solicited input on the Northern Corridor planning process from all members of the public, including local residents. The agencies satisfied regulatory requirements and departmental policies in providing 30 days for public scoping. The second opportunity for public comments, after the release of the Draft EIS, included a 90-day period for public comments.</p> <p>Public communications and/or availability of information concerning the Northern Corridor by Washington County and/or other local municipalities is solely at the discretion of the local municipalities and outside the decision space of the EIS and jurisdiction of the BLM.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
	<p>Myth #3: The Northern Corridor threatens Pioneer Park and the Dixie Rock. The Northern Corridor absolutely would not harm Pioneer Park or our Dixie Rock. In fact, one of the proposed alternatives WOULD require the removal of Dixie Rock, which we do not and will not support. Our historic landscape and heritage are immeasurably important to us. Pioneer Park and Dixie Rock are the property of St. George City. There is a possibility hiker access to Pioneer Park from the Red Cliffs Desert Reserve may be slightly affected, but elected officials are exploring options to mitigate these effects. Access to the area by traditional means (via Red Hills Parkway) will not be impacted. Pioneer Park, the Dixie Rock and other outdoor recreation with Pioneer Park will in no way be harmed by our proposal.</p> <p>Myth #4: The Northern Corridor will harm the Mojave Desert Tortoise. The Mojave Desert Tortoise is a beloved staple in Washington County. We would never consider a plan that would compromise their existence. We predict 20-50 tortoises may need to be MOVED out of the path of the roadway, which our specialists would do with extreme care. Washington County's wildlife biologists, in coordination with their counterparts at federal agencies, have a plan that will allow for the safe relocation of all tortoises who come near harm. The plan will also provide for tortoise road crossings, in the form of bridges and culverts, to further allow them to continue occupying their current territory. What the county has presented represents only one side of highly controversial and complex issues. This is unfair to the many county residents like us who oppose their NC alternative. For the county to assert that the “three alternatives to the south of the preferred alternative would each be more expensive” when citizens have not seen the costs is not fair to all alternatives under consideration. And, as noted in our comments, since it’s apparent there are features of the in-NCA/Reserve alternatives necessary to accommodate dealing with crossing recreational trails and such that have not been identified yet in plans, we and they cannot say that the costs would be less.</p>	<p>Section 2.2 of the EIS has been revised to include cost estimate ranges for each of the action alternatives.</p>

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Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-314	<p>Issue</p> <p>1. While the public was engaged, although during a very short time window, in the scoping, it was not engaged at all in the DEIS development: no chance to give input on scoping comments that were dismissed, no chance to give input on the alternatives to be analyzed. As a result, assumptions and decisions about the alternative to be considered could not be questioned.</p> <p>2. Washington County has proclaimed that the Northern Corridor Highway is "essential" for the county's economy, has sold this idea to the municipalities in the county, to the state legislature and to Utah's Congressional delegation, without proof or engagement of the public in alternatives. Indeed, that proof is proven wrong in this DEIS's conclusion, showing alternatives outside the NCA are better in terms of both environmental impacts (see summary of environmental impacts in the Executive Summary) and traffic relief (see analysis results in the tables in Appendix J). This DEIS should have been stopped due to an invalid purpose and need.</p>	<p>Refer to response to A.25-61. The purpose and need for the BLM as described in Section 1.3 of the EIS is to respond to UDOT's application for a ROW grant.</p>
H.65-59	<p>There has been no public consultation on the alternatives considered in the DEIS.</p> <p>Alternatives were provided by the public during scoping, but those alternatives were not used directly in the DEIS and the public (and CSU specifically, as the author of the community alternatives) was not consulted in the definition of the alternatives that were evaluated in the DEIS, violating OPLMA.</p>	<p>Refer to responses to A.25-61 and H.23-1. Alternatives development was part of the materials that were presented and made available for public input at the scoping meeting in December 2019.</p>
H.65-66	<p>"The five Northern Corridor action alternatives were developed through collaborative discussions with traffic engineers, environmental resource leads, agency stakeholders, and the public."</p> <p>Issue:</p> <p>6. We disagree: we were not involved in any "collaborative discussions" or discussions of any sort to develop the 5 NC action alternatives. Where is the notice of these discussions and why were we not invited? It appears that there was no public engagement in the develop of the 5 action alternatives, and we would have had significant design suggestions.</p>	<p>Refer to responses to A.25-61 and H.23-1. Alternatives development was part of the materials that were presented and made available for public input at the scoping meeting in December 2019.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-612	<p>1- Tribal Consultation: Consistent with the requirements of the National Historic Preservation Act, BLM must invite participation by the following bands and tribes, all who have a stake in the fate of their ancestral homelands and cultural resources protected therein: (37) Addressed in DEIS: Yes.</p> <ul style="list-style-type: none"> <li>a. The Paiute Indian Tribe of Utah including the Shivwits, Cedar, Indian Peaks, Kanosh and Koosharem Bands</li> <li>b. The Moapa Band of Paiutes</li> <li>c. The Kaibab Paiute Tribe</li> <li>d. All groups that claim affinity to this area should be consulted and given the opportunity to provide ethnography and input on cultural resources.</li> </ul> <p>2-Tribal Communications on Cultural Resources: We also request that the Shivwits Band of the Paiute Indian Tribe of Utah and other groups claiming affinity to the area be alerted to the following: (38) Addressed in DEIS: No. a. The known petroglyph panel located inside the proposed NCH alignment. b. That band/tribal members be invited to visit and provide comment on this (and other) petroglyph panels and cultural resources prior to the DEIS</p>	<p>The BLM and USFWS have solicited input from American Indian Tribes, such as those listed in the comment, for the Northern Corridor planning process, as described in Chapter 4 of the EIS. Tribal consultations will be ongoing through this planning and NEPA process. Tribal consultation has included government-to-government consultation meetings, invitations to participate in the planning process as cooperating agencies, and other outreach described in the EIS.</p>
H.65-442	<p>Timely Document Availability: BLM has failed to facilitate public comment by providing all relevant documents in a timely manner and must remedy this by providing the following:</p> <ul style="list-style-type: none"> <li>a. Clearly defined proposed actions</li> <li>b. A clearly defined project proposal</li> <li>c. A purpose and need Statement</li> <li>d. A draft of the Washington County HCP. Addressed in the DEIS: No.</li> </ul>	<p>The agencies satisfied regulatory requirements and departmental policies in providing documentation to the public. The Draft EIS made available to the public included items a to d. Refer to response to A.25-61.</p>
H.65-443	<p>Unsubstantial Scoping Comment: A comment need not be substantive to trigger the agency's response requirement. Given the limited scoping period provided for these three complex issues, citizen comments, even those considered "unsubstantial", should receive respectful consideration. (42) Addressed in the DEIS: No.</p>	<p>The BLM and USFWS are required to assess and consider comments on the EIS both individually and collectively (40 CFR 1503.4(a)). The BLM and USFWS considered all comments during the public scoping period consistent with NEPA and other applicable federal laws, regulations including guidance documents like the BLM NEPA Handbook.</p>

**0.3.27 Purpose and Need**

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.05-15	<p>Ch 1.1, p 1-1                      EIS Text: UDOT is seeking to meet the transportation demands of Washington County's anticipated continued growth through 2050 and Washington County is also seeking a renewed Incidental Take Permit (ITP) in order to meet the needs of its increasing population.                      Comment: This statement does not fully capture Washington County's intent with respect to seeking renewal of its ITP and gives the false impression that new take is needed or being requested for an increasing population. The County's primary intent with respect to the requested renewal is to continue to access previously authorized but unutilized take authorization that has been fully released for use by the USFWS as a result of the completed conservation actions of the County and the HCP Partners. The Draft EIS should be revised to adopt the language in the Final Draft Amended HCP for a statement of the County's intent or objective in seeking ITP renewal: "The Renewed/ Amended ITP is needed to extend the term of the Original ITP and continue the County's access to previously authorized, but unrealized, incidental take for 25 more years (the Renewed/ Amended ITP Term)." (Amended HCP:1) This comment also applies to similar statements at: Ch 1.2.2, pl-2; Ch 1.3.1, pl-3; and elsewhere.</p>	<p>The language in the EIS has been updated to remove the reference to Washington County's ITP related to population growth.</p>
A.05-16	<p>Ch 1.2.2, p 1-2                      EIS Text: The County is restating and amending the HCP to carry forward the conservation measures from the 1995 HCP along with such amendments as addressing the changed circumstance of the Northern Corridor if a route is approved that crosses the Reserve.                      Comment: This statement mischaracterizes the County's intent with respect to amending the 1995 HCP. The Draft EIS should be revised to adopt the language in the Final Draft Amended HCP: "Amendments to the 1995 HCP are needed to incorporate advances in the best available science pertaining to the MDT, comply with current USFWS regulations pertaining to ITPs, incorporate current policy regarding amended HCPs (as applicable), and clarify the language and intent of the 1995 HCP. In addition, this Amended HCP documents the conservation successes of the County and the HCP Partners achieved from the implementation of the 1995 HCP." (Amended HCP:1)</p>	<p>The EIS has been revised to include most of the text suggested by the applicant from the Amended HCP.</p>

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A.05-17	<p>Ch 1.3.2, p 1-3  EIS Text: The purpose of the USFWS's Federal action of approving an Amended HCP and issuing an ITP is to authorize take of the Mojave desert tortoise incidental to the covered activities proposed by the County, while ensuring conservation of the species by minimizing and mitigating the impacts from the anticipated take to the maximum extent practicable. Issuance of such a permit will allow the County to proceed with covered activities while complying with the ESA.  Comment: This statement incorrectly implies that the USFWS is deciding whether or not to issue a new ITP authorizing new take. The County has applied to the USFWS for a renewal of its previously issued ITP to extend the duration in which it may utilize previously authorized and released take. The "take" subject to renewal has been previously evaluated under NEPA and ESA Section 7, deemed to be consistent with the statutory issuance criteria for an ITP, and authorized by the USFWS. The Draft EIS should incorporate by reference the prior analyses of the 1996 Environmental Impact Statement and Biological Opinion. Throughout the Draft EIS, numerous references to "issuance" of an ITP should be revised to read "reissuance" or "renewed."</p>	Refer to response to A.05-2.
A.05-18	<p>Ch 1.3.2, p 1-3  EIS Text: It also will provide regulatory assurances to the County that the USFWS would not impose additional Mojave desert tortoise conservation measures during the 25- year duration of the permit as long as the County is properly implementing the Amended HCP and the existence of any listed species is not jeopardized.  Comment: Regulatory assurances provided by an ITP are valid for the duration of the permit, which may be extended or renewed. Therefore, this sentence should strike the reference to specific number of years included in the current request for renewal. This comment applies wherever similar statements appear.</p>	The EIS text was revised to remove the specific permit duration. Refer also to response to A.05-2.

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.05-19	<p>Ch 1.3.2, p 1-3</p> <p>EIS Text: The applicant's Amended HCP must include all elements as required by ESA Section 10(a)(2)(A) and satisfy the issuance criteria for incidental take authorization that are outlined in Section 10(a)(2)(B).</p> <p>Comment: This statement suggests that the content of the conservation plan must satisfy anew each and every one of the issuance criteria in ESA Section 10(a)(2)(B). As the USFWS has previously determined that the Original HCP satisfied the issuance criteria, the agency need not reconsider terms that it already approved in 1996. This statement should be revised to incorporate by reference the prior analyses supporting issuance of the Original ITP and clarify that its analysis of the issuance criteria with respect to the requested ITP renewal is limited to the consideration of new terms.</p>	Refer to response to A.05-2.
A.05-20	<p>Ch 1.3.2, p 1-4</p> <p>EIS Text: The need for the USFWS's proposed action is to respond to the County's application for an ITP that addresses covered activities that have the potential to result in take of threatened and endangered species, pursuant to ESA Section 10(a)(1)(B) and its implementing regulations and policies .... The USFWS must determine if the HCP satisfies all statutory and regulatory requirements, including ESA Section 10(a)(2)(B) issuance criteria. The USFWS will evaluate whether the amended conservation strategy offsets to the maximum extent practicable the take requested in the Amended HCP.</p> <p>Comment: This statement is incorrect. The County applied for renewal of its previously issued ITP. The USFWS is responding to a request for permit renewal, not a request for permit issuance. The action of renewing an ITP is governed by USFWS permit administration regulations at 50 CFR 13.22. While the Draft EIS acknowledges that 50 CFR 13.22 provides for continued reliance on an expired ITP while renewal is under consideration, this regulation also governs the standards under which USFWS is to consider a request for permit renewal. As the take subject to renewal has already been found to meet the ITP issuance criteria, which have not changed at all in the intervening years, the renewal of the ITP is subject solely to 50 CFR 13.22. The Draft EIS should be revised to acknowledge that the action of renewing an ITP is governed by USFWS permit administration regulations at 50 CFR 13.22. This comment also applies to similar statements at: Chapter 2.4, p2-11; and elsewhere.</p>	Refer to response to A.05-2.

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A.05-21	<p>Chapter 1.3.3, p 1-4  EIS Text: Washington County has submitted an Amended HCP to the USFWS that would expand the Reserve by approximately 6,800 acres to include proposed Reserve Zone 6 (refer to Map 1.1-1).  Comment: This statement is incomplete. The expansion of the Reserve would only occur if the Northern Corridor Changed Circumstance is triggered. If this Changed Circumstance does not occur, then the expansion of the Reserve would not occur. The Draft EIS should be revised to read: " ... that, under certain changed circumstances, would expand the Reserve ... "</p>	The EIS has been revised as noted.
A.05-22	<p>Chapter 1.4, p 1-4  EIS Text: 1) The USFWS must determine whether the Amended HCP is statutorily complete and otherwise meets regulatory and policy requirements applicable to a permit application before issuing an ITP.  Comment: This statement is not accurate with respect to the decision to be made by the USFWS. This statement does not consider the prior authorizations of the USFWS, does not acknowledge that the action of the USFWS is to renew a previously issued ITP, and implies that consistency with policy guidance is a requirement for ITP renewal. The Draft EIS should be revised to read: "The USFWS must determine whether the Amended HCP is statutorily complete and the County has otherwise met the regulatory requirements applicable to renewal of an ITP."</p>	Refer to response to A.05-2.

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-325	<p>"Responding to UDOT's ROW application also furthers the Department of the Interior's policy goals, as stated in the Strategic Plan for Fiscal Years 2018-2022, to "enhance conservation stewardship whereby all levels of government and private landowners work cooperatively together in an atmosphere of mutual respect to achieve shared natural resource management goals across landscapes" and to "[develop] and [ maintain] strong partnerships with State, local, and private stakeholders in shared conservation stewardship." UDOT is seeking to meet the transportation demands of Washington County's anticipated continued growth through 2050 and Washington County is also seeking a renewed Incidental Take Permit in order to meet the needs of its increasing population. Washington County's current transportation infrastructure may not accommodate the County's projected growth, and it is trying to balance that future growth with the statutory and regulatory provisions governing the Red Cliffs NCA and larger Red Cliffs Desert Reserve, and the protected wildlife that resides on those lands."</p> <p>Issue:</p> <p>7. It's fine to work cooperatively so long as the result is not a violation of laws. Granting the highway ROW inside the NCA is a violation of OPLMA.</p> <p>8. The balance cannot violate laws, especially when superior solutions exist outside the NCA.</p>	<p>Portions of the text referred to in this comment have been revised in response to other comments in the Final EIS. Refer also to response to NCA-01.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.24-2	<p>2) The federal purpose and need statement is too narrow, reactive, and deferential and therefore improperly skews the DEIS analysis. While the DEIS distinguishes between the applicant’s and federal agencies’ purposes and needs for action, the latter is arbitrarily narrow, reactive, and deferential to UDOT and the county. The federal purpose and need statement must not only be separate from the applicants, but also framed consistent with the agencies’ relevant legal duties and in the public interest. See 43 CFR 46.420. For example, BLM’s DEIS purpose should include serving the NCA’s statutory purposes under OPLMA. And BLM and FWS’ purpose should include working toward the conservation and recovery of the currently declining threatened Mojave desert tortoises. BLM and FWS have an affirmative statutory duty to do so. For example, please see 16 USC 1531 (c)(1): It is further declared to be the policy of Congress that all Federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of the purposes of this chapter.</p>	<p>Section 1.3 of the EIS describes the decisions to be made by both the BLM and USFWS as a result of the UDOT ROW application and Washington County’s Amended HCP. These decisions are described within the context of each agency’s relevant legal authorities. Each agency will make their decisions analyzed in the EIS based on their broad agency responsibilities under relevant law, regulation, and policy. However, it is not appropriate for the agencies to include these laws, regulations, and policies in the relevant purpose and need statements because they are not the purpose of or need for Federal action.</p> <p>The BLM is utilizing the NEPA process to, in addition to analyzing the potential impacts of the proposed ROW, to evaluate if the ROW application is consistent with the statutory purposes of the Red Cliffs NCA and whether it is necessary to amend the Red Cliffs NCA RMP to accommodate a ROW, or deny UDOT’s ROW application.</p> <p>The USFWS is reviewing the Amended HCP submitted by Washington County as directed by Section 10(a)(2)(A) of the ESA and its implementing regulations at 50 CFR 17.22 and 17.32, and the 2016 HCP Handbook. If the applicant’s HCP meets the issuance criteria and is statutorily complete, the USFWS shall issue an ITP. Refer also to response to NCA-01.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-30	<p>BLM states that it takes into account the provisions of OPLMA, but in "Section 1.3 Purpose and Need for Federal Actions", BLM fails to discuss its obligation under OPLMA Subtitle 0, Section 1974 to: (1) to conserve, protect, and enhance for the benefit and enjoyment of present and future generations the ecological, scenic, wildlife, recreational, cultural, historical, natural, educational, and scientific resources of the National Conservation Area; and (2) to protect each species that is- (A) located in the National Conservation Area; and (B) listed as a threatened or endangered species on the list of threatened species or the list of endangered species published under section 4( c )( 1) of the Endangered Species Act of 1973 (16 U.S.C. 1533(c)(1) Instead, BLM discusses its requirement to identify a northern transportation route in the county. "In particular, under OPLMA Subtitle 0, Section 1977, the BLM is required to develop a comprehensive travel management plan for the land managed by the BLM in Washington County and, in doing so, to "identify one or more alternatives for a northern transportation route" in the county." Note that Section 1977 does not say BLM must identify a northern transportation route inside the Red Cliffs NCA. BLM must take into account the full provisions of OPLMA, and not just individual sections that support the applicant's purpose and need.</p>	<p>Refer to responses to NCA-01 and H.65-26. As described in EIS Chapter 2, the BLM has considered and analyzed alternatives that occur within and outside of the Red Cliffs NCA.</p>
H.65-31	<p>The federal purpose and need statement must not only be separate from the applicants, but also framed consistent with the agencies' relevant legal duties and in the public interest. See 43 CFR 46.420. For example, BLM's DEIS purpose should include serving the NCA's statutory purposes under OPLMA. And BLM and FWS' purpose should include working toward the conservation and recovery of the currently declining threatened Mojave desert tortoises. For example, note ESA 16 USC 1531 (c)(1): "It is further declared to be the policy of Congress that all Federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of the purposes of this chapter."</p>	<p>Refer to response to A.24-2.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-60	<p>The applicant has stated their objective in the form of a specific solution rather than a statement of the problem to be addressed. There is an erroneous assumption that a new highway through the NCA is required to meet the objective. The real objective should be stated in terms of the problem to be solved, that is, the projected traffic congestion around specific intersections and the projected transit time between specific geographic points. The applicant has failed to demonstrate that the only solution is a highway through the NCA. The applicant's assumption has not and cannot be validated. The DEIS proves that there are superior alternatives outside the NCA. The ROW should be denied due to an invalid purpose and need statement.</p>	<p>As described in Sections 1.2 and 1.3 of the EIS, the Federal agencies' purpose and need for action is distinct from the applicants' interest and objectives. The BLM and USFWS have included the applicants' interests and objectives in the EIS as appropriate. However, the BLM and USFWS have independently developed purpose and need statements and have not constrained them based on the applicants' objectives.</p> <p>As described in Section 3.26 and Appendix J of the EIS, there were several supporting traffic and transportation studies developed prior to the Draft EIS to help inform the analysis of the application submitted by UDOT to BLM. These studies and analyses are described in the Northern Corridor Highway Alternatives Development Report (Appendix J of the EIS) and the Preliminary Northern Corridor Traffic Analysis Memorandum (Appendix L of the EIS).</p> <p>The EIS evaluates a range of reasonable alternatives, with three action alternatives within the Red Cliffs NCA and two action alternatives that lie predominately or entirely outside the NCA. These alternatives would meet the purpose and need for Federal actions and represent different approaches to resolving resource conflicts.</p>

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H.65-62	<p>The Purpose and Need Statement should address the timing of the need, and it did not. It is known from prior traffic modeling exercises that traffic congestion relief is desired by 2040. That need is in the distant future. The need may not arise, the impact analysis may change significantly, and other solutions may become evident. Granting a right-of-way 20 years in advance of the need is not necessary, logical or economical. It is so far in the future as to render this DEIS invalid; a supplement should be required when the actual need is proven. The ROW should be denied on this basis alone.</p>	<p>The DMPO's 2019-2050 Regional Transportation Plan has identified the first phase of the Northern Corridor to be constructed between 2020 and 2029. The timing of the UDOT ROW application submitted to the BLM is appropriate given the estimated construction timeframe and associated design and planning requirements. In the event that the ROW is issued and not utilized in a timely manner, the BLM would evaluate the circumstances using the agency's standard ROW regulations and manuals to determine whether any additional administrative or environmental reviews are needed prior to issuing a Notice to Proceed with construction.</p>
H.65-72	<p>"Context" as defined in the DEIS includes only spatial context. It should also include temporal context. The stated purpose and need for a highway that is proclaimed by the applicant to be needed primarily only after 20 years in the future. Applying for a right-of-way that is anticipated to be needed in such a distant timeframe is inappropriate since so much may change in both the environment and the need over that timeframe. The application should be denied based on the fact that any EIS performed now will have to be re-evaluated at that future time.</p>	<p>Refer to response to H.65-62.</p>
A.25-1	<p>DOI's goals as stated in the Strategic Plan for Fiscal Years 2018-2022 are lofty goals and ones worth achieving as long as the purposes for which protected areas such as Red Cliffs National Conservation Area/Reserve (Red Cliffs) are not sacrificed in the process. The knowledge we have of UDOT's (i.e., Washington County's) Northern Corridor route and the process that has been underway for fourteen years, reveal DOI already has a strong partnership with State, local, and private stakeholders. The relationship certainly includes all levels of government given the involvement we've seen by Utah Congressional members and their attempts to enact legislation to force a ROW through Red Cliffs.<sup>123</sup> Since the county encourages these attempts, and the county has a close relationship with our local BLM, the goal seems to have already been achieved and needs no more assistance.</p>	<p>Comment noted.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.25-13	<p>It's not clear that the current transportation infrastructure "plans" will not accommodate the County's projected growth. There are many plans on the books including plans for road work that would help manage the traffic congestion at the Costco Green Springs intersection and Telegraph/Green Springs intersection. That area is one of the main bottleneck areas that the county is trying to deal with. Currently there is a large, open parcel of land across from Costco to the east. Why is that land sitting there when a road to relieve traffic could cross it rather than building one that would impact the NCA/Reserve?</p> <p>We do not believe that the cumulative effects of all the planned road work in the county have been adequately evaluated to determine their effects on managing traffic as our area grows, and the rush to put a highway through Red Cliffs is not justified.</p>	<p>Refer to responses to H.65-60 and H.65-62. Section 3.26 of the EIS analyzes effects to traffic and transportation based on future 2050 travel demand forecasts for Washington County, using the DMPO Travel Demand Model, which assumes that all other roadway and transit improvement projects in the DMPO RTP (DMPO 2019) have been constructed. EIS Appendix J, Highway Alternatives Technical Report and Appendix L, Traffic Analysis Memorandum, describe the traffic modeling and other methods used to determine the traffic and transportation effects in Washington County.</p> <p>EIS Section 3.28 discloses cumulative impacts from the alternatives analyzed in detail. Table 3.28-2 includes a detailed list of reasonably foreseeable transportation projects, as well as other project types, that could occur in the next 20 to 25 years.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-323	<p>2. Purpose and Need for Right-of-way Application "UDOT has applied for a ROW to construct a multi-lane, divided highway on BLM administered lands within the Red Cliffs NCA and the overlapping Red Cliffs Desert Reserve with the objective of reducing congestion, increasing capacity, and improving east-west mobility on arterial and interstate roadways between State Route 18 (SR 18) and 1-15 at milepost 13." Issue:</p> <p>5. UDOT's purpose is incorrectly defined in that it assumes that the best or only solution is through the NCA. The DEIS proves this is not the case. The application should be rejected on that basis.</p>	<p>Refer to response to H.65-60.</p> <p>EIS Section 1.3 defines the purpose and need for Federal actions, not UDOT's purpose and need. The quoted sentence is accurate as it describes the ROW application submitted to the BLM by UDOT. As further described in EIS Section 1.3.1, the BLM's purpose and need for action is to respond to UDOT's application for a ROW grant under Title V of FLPMA, BLM's ROW regulations, 43 CFR 2800, and other applicable Federal laws.</p> <p>The EIS evaluates a range of reasonable alternatives, with three action alternatives within the Red Cliffs NCA and two action alternatives that lie predominately or entirely outside the NCA. These alternatives meet the purpose and need for Federal actions and represent different approaches to resolving resource conflicts.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-326	<p>2.1 Right-of-Way Applicant's Objectives and Transportation Need "UDOT submitted a ROW application for construction, operation, and maintenance of a new highway with the objective of reducing congestion, increasing capacity, and improving east-west mobility on arterial and interstate roadways between SR 18 and 1-15 at milepost 13. This objective is driven by the current and forecasted population growth within the county, which will continue to increase demand on the transportation network. Currently, the existing transportation network between SR 18 and 1-15 is not adequate to meet future (2050) travel demand in the northeastern and northwestern areas of St. George based on traffic projections from the DMPO's Regional TDM (Horrocks Engineers 2020a). The transportation need for the applicant's proposed action is the result of the growing population and increased future travel demand on the transportation system within the northern City of St. George, Washington City, City of Santa Clara, and the City of Ivins metropolitan areas, hereinafter referred to as the St. George urbanized area, and is what the proposed action is intended to address. The need for the applicant's proposed action is based on the following transportation deficiencies and is further described below:</p> <ul style="list-style-type: none"> <li>• Lack of east-west corridors that cross within the St. George urbanized area, resulting in travel delay and decreased mobility {Appendix J at 5} (see issue 9).</li> <li>• Increased traffic congestion along key regional roadways, including Red Hills Parkway, St. George Boulevard, and Bluff Street.</li> <li>• Increased traffic congestion and decreased mobility at key intersections and interchanges within the St. George urbanized area."</li> </ul> <p>Issue: 9. This statement is untrue. Red Hills Parkway is the east-west corridor. It merely needs to be improved to handle increased traffic. The DEIS alternatives analysis makes this clear, and should result in the rejection of UDOT's assumption that a new highway, through the NCA, is required. It is not.</p>	<p>Alternative preference noted. The EIS analyzes the Red Hills Parkway Expressway alternative (Alternative 5), which proposes changes to the Red Hills Parkway instead of a new road across BLM-administered lands within the NCA for the Northern Corridor.</p>
A.30-10	<p>ES 2.2; ES-3 The purpose of the of the proposed Zone 6 is not only to “offset impacts if a ROW is granted...” but also to augment and expand the tortoise habitat. The land area being added far exceeds the impacted area in the NCA and Reserve. It would be more accurate for the language to read “offset impacts and expand protection of known habitat of the desert tortoise if a ROW is granted within the Red Cliffs NCA and Reserve.”</p>	<p>Based on this and other comments received on the Draft EIS, the BLM has modified the purpose statement to remove text indicating that the purpose of the potential Zone 6 RMP amendment is “to offset impacts.”</p>

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H.65-451	Purpose and Need: Whether the NCH is truly "ripe" given that construction won't begin until after 2030 and won't be completed until after 2050. (37) Addressed in the DEIS: No.	Refer to the response to H.65-62.
H.65-454	Purpose and Need: Whether the population projections used by the applicant to justify need for the NCH are accurate and whether they include the most recent Kem C. Gardner predictions which have been trending down. (37) Addressed in the DEIS: No.	Refer to the response to H.65-323. As described in Appendix L, Traffic Analysis Memorandum, the population and employment forecasts used in the DMPO Regional Travel Demand Model come from the University of Utah's Gardner Policy Institute, which provides demographic information for the Utah State Legislature and Office of the Governor.
H.65-455	Purpose and Need: We cannot propose Need Statement since that information has also not been made publicly available, but such a statement must describe the basis for the data used to define the goals and objectives in the Purpose Statement, the point at which congestion causes too much burden on the local economy, the basis for that judgment in comparison with other metropolitan areas, and the degree to which this failure must be alleviated and why. Probabilities/accuracies in data projections must be addressed. (41) Addressed in the DEIS: No.	The purpose and need statements for the Federal actions can be found in EIS Section 1.3. Information used to develop and compare alternatives for the Northern Corridor is included in Appendix J, Highway Alternatives Development Technical Report. Refer also to response to H.65-60.
H.65-456	Purpose and Need: Justify the certain damage to the habitat protected by the HCP and NCA caused by a highway to be built in the distant future having uncertain utility considering the uncertainty of population growth, transportation technology and related network requirements, in light of the ability of local government to significantly impact projected traffic with land use planned to reduce congestion. (48) Addressed in the DEIS: No.	Refer to the responses to H.65-323 and H.65-453.
H.65-457	Purpose and Need: Properly define the goal and objectives to state in the appropriate specificity the anticipated condition, why it is unacceptable, what would be acceptable, and why. (41) Addressed in the DEIS: No.	Refer to the response to H.65-323.
H.65-458	Purpose and Need: Properly define the need to provide data to support the purpose statement, along with estimated degrees of accuracy in the data. (41). Addressed in the DEIS: No.	Refer to the response to H.65-455.

**0.3.28 Recreation and Visitor Services**

Letter #- Comment # or Public Concern Statement #	Comment	Response
4779-8	<p>There is no justification to downgrade the Special Recreation Management Area around the NCH. Recreators would be subject to stark or obvious visual change to the natural setting, frequent highway noise, increased contact with people on trails, and the ability to hear groups of people on a more constant basis[6]  <a href="https://conserveswu.org/2020/01/11/issue-7/#_ftn6">https://conserveswu.org/2020/01/11/issue-7/#_ftn6</a>.</p>	<p>None of the Northern Corridor alternatives or Red Cliffs NCA RMP alternatives would alter the SRMA boundary. However, for road alternatives that cross the NCA, the BLM is considering amending the boundaries of RMZ within the SRMA to better align the recreation management objectives of the affected area with the RMP. As described in the Recreation and Visitor Services analysis, Northern Corridor Alternatives 2, 3, and 4 traverse the Red Cliffs NCA and would alter the recreation setting within the Frontcountry RMZ. BLM may determine to amend the Frontcountry and Rural RMZ boundaries through selection of either Red Cliffs NCA Alternatives B or C, which would manage a 600-foot-wide area along the selected Northern Corridor based on the Rural recreation management objectives. Alternatively, the BLM could select not to amend the current RMZ boundaries by selecting the Red Cliffs NCA RMP Amendment Alternative A, which would maintain the current management direction for recreation within the SRMA. However, as noted, the recreation setting would still be impacted should a road alternative be approved across the NCA.</p>
H.03-2	<p>The Red Cliff Desert Preserve (RCDP) is a great recreation area for Washington City. Unfortunately some of our residents are limited in their mobility and can not access or enjoy most of the RCDP. We feel that the preferred alternative (UDOT Alternative) would provide that access and enjoyment to those that area not able to enjoy it because of poor health or disability. The Southern Alignment is too close to areas of the RCDP that already have sufficient access to provide the same benefit as the preferred alternative (UDOT Alternative). We feel the Red Hills Parkway Expressway, and St. George Boulevard/100 South One-way Couplet Alternative do not provide this benefit at all.</p>	<p>The potential benefits to recreational users with the UDOT Alternative, as well as other Northern Corridor alternatives, are discussed in Sections 3.13 and 3.15 of the EIS. As noted in the Recreation and Visitor Use analysis, a new road alignment crossing the NCA could provide access to users who do not currently use the area. In addition, as discussed in the Visual Resources analysis, users of the new road alignment and/or its adjacent trail would have closer views of features of the Red Cliffs NCA.</p>

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Letter #- Comment # or Public Concern Statement #	Comment	Response
1336-1	I am sending this email to express my concern for any land swaps or proposed routes on the Northern Corridor that would eliminate access to Mountain Biking trails. These trails are used DAILY by hundreds (potentially thousands) of bikers in our community. A reduction in access to these trails, especially Paradise Rim, Chuckwalla, Zen, Barrel, Bear Claw Poppy, and any other trails in the green valley area would be devastating to the local biking community.	None of the SGFO RMP Amendment alternatives would create, close, or alter trails within proposed Zone 6. While the potential SGFO RMP Amendments and the Washington County Amended HCP contain an action that would reduce the total trail miles within proposed Zone 6, decommissioning of specific trails or routes on BLM-administered lands within proposed Zone 6 would be evaluated in a future implementation-level Travel Management Plan and NEPA analysis.
13706-5	In particular, the recreation experience, and in some cases the trails themselves, face major degradation from the down zoning of the NCA's RMZ and allowance of a highway. These include: Owen's Loop, City Creek, Pioneer Hills, Pioneer Rim, T-Bone, Broken Mesa, Cottontail, Mill Creek, Bone Wash, Sand Hill, Dino Cliffs, Grapevine, and Cottonwood Canyon Wilderness trails. The DEIS must thoroughly analyze such impacts to accurately weigh the tradeoffs between the preferred Alternative and others, in particular those not including the NCH within the Red Cliffs NCA.	BLM may determine to amend the boundaries of the Frontcountry and Rural RMZs through selection of either Red Cliffs NCA Alternatives B or C, which would manage a 600-foot-wide area along the selected Northern Corridor based on the Rural RMZ recreation management objectives. Alternatively, the BLM could select not to amend the current RMZ boundaries by selecting the Red Cliffs NCA RMP Amendment Alternative A, which would maintain the current management direction for recreation within the RMZs. However, the recreation setting would still be impacted should a road alternative be approved across the NCA that would have adverse effect to user experience. Trails not located on BLM-administered lands, and therefore outside the RMZs, would continue to be managed by the Public Use Plan. The analysis has been revised to further clarify types of impacts for trails within the potential ROWs, as opposed to beyond the ROW. Additionally, between the Draft and Final EIS, UDOT has amended the POD submitted to the BLM. Based on the design features contained in the revised POD, the BLM has revised the analysis to clarify that under-road passages for each of the existing recreational trails that cross the ROW would be provided and that the paved trail along the proposed Northern Corridor would not connect to existing trails.

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Letter #- Comment # or Public Concern Statement #	Comment	Response
14450-2	<p>The DEIS doesn't address potential impacts on the recreation experience of the presence of a NCH on viewsheds, noise levels, air quality, wildlife and habitat, and other effects such as trash and increased wildfire threat that will result from the highway. the recreation experience, and in some cases the trails themselves, face major degradation from the down zoning of the NCA's RMZ and allowance of a highway. The DEIS must thoroughly analyze such impacts to accurately weigh the tradeoffs between the preferred Alternative and others, in particular those not including the NCH within the Red Cliffs NCA.</p>	<p>The analysis contained in the EIS recognizes that changes to the setting may adversely impact user experience and relies on detailed analysis, including description of affected environment, in Section 3.13 (Visual Resources), Section 3.23 (Noise), Sections 3.2–3.5 (Vegetation and Wildlife), and Section 3.12 (Air Quality) to describe the nature of those changes.</p> <p>Refer also to responses to 13706-5 and FIRE-02.</p>
A.51-66	<p>42 3-129 3-133 3-134 3.15.2.3</p> <p>Text: “Section 3.15.2.3. states: “Existing competitive use events that have an SRP would be unaffected by implementation of the HCP. On BLM-administered lands, Alternatives B and C would not alter how motorized SRPs are issued in the proposed Zone 6.”</p> <p>Comment: Page 3-129 indicates there are five competitive events currently in Zone 6, which we understand would continue to be permitted under all three SGFO RMP alternatives. Given this information, we feel that the discussion in Section 3.15.2.3 fails to describe the nature of these events and associated impacts. How many participants and spectators would continue to be allowed in a Zone 6 satellite reserve? How would the SGFO RMP be modified, if at all, to curtail impacts of these five competitive events in the satellite reserve? Has BLM monitored the competitive events, and if so, what are the documented impacts? Based on these data or anecdotal observations, how will the events be conducted to promote tortoise conservation in the satellite reserve? This information needs to be added to the Final EIS.</p>	<p>There are no motorized events or Special Recreation Permit (SRPs) in the proposed Zone 6 with the exception of motorized events using Navajo Drive that goes through the southern portion of proposed Zone 6 to access other public lands.</p> <p>The BLM SGFO RMP Amendment alternatives contained in the EIS contain only planning-level decisions related to the criteria for issuing future SRPs. The federal actions analyzed in the EIS do not propose changes to existing SRPs and do not include implementation-level decisions such as approvals of new or reauthorization of past SRPs. The analysis contained in the EIS is appropriate to support these planning-level decisions.</p> <p>Each SRP and/or event undergoes individual review and analysis by the BLM annually. All events proposed in the proposed Zone 6 are reviewed by the BLM. When SRPs are issued, the BLM utilizes stipulations to protect threatened and endangered species after consultation with the USFWS. For past events in proposed Reserve Zone 6, the BLM conducts a full tortoise inventory/sweep of the racecourse and surrounding area the day before, the day of, and the day after each event. All competitors and event staff are educated on Mojave desert tortoise and bear claw poppy issues and etiquette, and receive an educational packet regarding the resources. The BLM retains the discretion to reject applications for SRPs that are</p>

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		not appropriate based on the BLM's management direction and objectives for an area.
H.65-177	<p>Unfortunately, given the vital importance of recreation activities in the NCA, the Affected Environment section lacks any description of the specific trails, trail systems, and trailheads that face direct, indirect, and/or cumulative effects from the alternative actions. Without such information, that can then be evaluated in the context of the actions of each of the alternatives, no effective analysis is possible. While Table 3.15.2 presents a trail network summary for the entire NCA, it has no information on the trail type, uses, scenic values, habitat, level of noise disturbance and other attributes for each of the trails it lists in the Environmental Consequences section, Table 3.15.5.</p>	<p>Trail user types have been incorporated into Table 3.15-5 and Table 3.15-6 (formerly Table 3.15-7) and additional information from the 2016 Red Cliffs NCA RMP Draft EIS has been incorporated into the EIS by reference. The 2015 Red Cliffs NCA RMP Draft EIS provides further detail on recreation activities in the NCA, including trail users by each trail and general use of these areas, and existing disturbance. The scenic qualities of the area, which includes qualities associated at trails and trailheads, are detailed in Section 3.13, Visual Resources, of the EIS and the associated visual resources technical report appended to the EIS. The Visual Contrast Rating Worksheets included in the technical report detail the specific landscape characteristics that are indicative of many of the trails analyzed and identified as impacted in the recreation and visitor experience analysis. Refer also to response to 14450-2.</p>
H.65-180	<p>The DEIS analysis methods and assumptions for evaluating impacts to recreation and visitor services resulting from the proposed Northern Corridor are woefully inadequate. BLM assumes that:                      "The analysis areas contain recreational user types or groups, and each type or group has differing recreational expectations and experiences."                      DEIS at 3-129.                      However, the analysis fails to address the specific nature of each of the recreation areas and what composes the "differing recreational expectations and experiences."                      It also fails to raise site-specific prospective impacts to recreation and visitor services including noise disturbance, air quality, views, pollution from trash, and habitat quality and related wildlife viewing.</p>	<p>The objectives, activities, and experiences for each RMZ are summarized in Table 3.15-1 of the EIS, which are indicative of the potential user types and expectations for each RMZ. Refer also to responses to 14450-2 and H.65-177.</p>

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H.65-181	<p>The following table provides a detailed list of information concerning potential impacts to specific trails requested by the Red Cliffs Conservation Coalition during the scoping process that have not been analyzed in the DEIS. It also addresses what will be lost with an RMP Amendment downzoning the RMZ from Frontcountry to Rural. (MULTI PAGE TABLE ON Page 142, coded as seperate comments)</p> <p>In summarizing the table, although the current Frontcountry RMZ recognizes an urban interface with landscapes that have human-made infrastructure, the DEIS fails to evaluate the existing qualities of the trails listed in the above table. These trails are a hallmark of why the Red Cliffs has been designated as a National Conservation Area. Recreation is one of the 9 resource values the NCA was designated to protect, conserve, and enhance for present and future generations. As previously noted, the DEIS fails to look at the specific qualities of these trails and trail users, and thus cannot effectively weigh the tradeoffs between the alternatives.</p>	<p>The analysis has been revised to further clarify types of impacts for trails within the potential ROWs, as opposed to beyond the ROW. Additionally, between the Draft and Final EIS, UDOT has amended the POD submitted to the BLM. Based on the design features contained in the revised POD, the BLM has revised the analysis to clarify that under-road passages for each of the existing recreational trails that cross the ROW would be provided and that the paved trail along the proposed Northern Corridor would not connect to existing trails.</p> <p>Refer also to responses to H.65-177, 14450-2, and 13706-5.</p>
H.65-182	<p>T-Bone Trail <u>Info. Requests and Impact Issues from CSU's Scoping Comments not Addressed in DEIS</u></p> <p>Direct impacts: For Alternatives 2-4, DEIS is unclear on how much of trail will be altered/closed and if/how trail passage thru NCH will be accommodated.</p> <p>Other Direct Impacts, Indirect and Cumulative Impacts: Noise, Viewshed/Scenic Qualities, Air Quality, Fragmented Wildlife Habitat,</p>	Refer to response to H.65-181.
H.65-183	<p>T-Bone Trail <u>RMP Amendment Tradeoffs for Alternatives B &amp; C</u></p> <p>Easily accessed, local favorite trail for hiking and trail running - this peaceful, scenic non-motorized recreational experience irretrievably lost with NCH. Possible incorporation into paved pedestrian/bike trail along NCH would mean complete loss of trail. Additional future impacts with Alt. C of RMP Amendment.</p>	Refer to response to H.65-181.

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Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-184	<p>Cottontail Trail  <u>Info. Requests and Impact Issues from CSU's Scoping Comments not Addressed in DEIS</u>                      Better understand visitor use on this trail with visitor counters. No info. in DEIS about visitor numbers. Direct impacts: For Alternatives 2-4, DEIS unclear on how much of trail will be altered/closed and if/how trail passage thru NCH will be accommodated. Other Direct Impacts, Indirect and Cumulative Impacts: Noise, Viewshed/Scenic Qualities, Air Quality, Fragmented Wildlife Habitat,</p>	<p>Refer to response to H.65-181. After reviewing the type and nature of potential impacts on the Cottontail Trail, the BLM determined that additional data collection to support the EIS analysis was not required.</p>
H.65-185	<p>Cottontail Trail  <u>RMP Amendment Tradeoffs for Alternatives B &amp; C</u>                      Important trail in Green Springs area, providing connection for hikers and mtn. bikers to Middleton Powerline, Mustang Pass, Ice House trails. Non-motorized recreational experience irretrievably lost with NCH. Possible incorporation into paved pedestrian/bike trail along NCH would mean complete loss of trail. Additional future impacts with Alt.</p>	<p>Refer to response to H.65-181.</p>
H.65-186	<p>Pioneer Rim Trail  <u>Info. Requests and Impact Issues from CSU's Scoping Comments not Addressed in DEIS</u>                      Direct impacts: For Alternative 4, DEIS unclear on how much of trail will be altered/closed and how trail passage thru NCH will be accommodated, incl. for equestrian users. Other Direct Impacts, Indirect and Cumulative Impacts: Noise, Viewshed/Scenic Qualities, Air Quality, Fragmented Wildlife Habitat.</p>	<p>Refer to response to H.65-181.</p>
H.65-187	<p>Pioneer Rim Trail  <u>RMP Amendment Tradeoffs for Alternatives B &amp; C</u>                      Increasingly popular trail, family friendly non-motorized hiking and biking, accessible via Pioneer Park. Will face major degradation of recreation experience, positioned between Red Cliffs Parkway and NCH. High tortoise density and wildlife viewing threatened by the NCH.</p>	<p>Refer to response to H.65-181.</p>

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H.65-188	<p>Pioneer Hills Trail and Trailhead Info. Requests and Impact Issues from CSU's Scoping Comments not Addressed in DEIS Direct Impacts: For Alternative 4, DEIS does not specify impacts to Pioneer Hills Trailhead and Trail, and how these will be addressed, incl. for equestrian users. Other Direct Impacts, Indirect and Cumulative Impacts: Noise, Viewshed/Scenic Qualities, Air Quality, Fragmented Wildlife Habitat.</p>	Refer to response to H.65-181.
H.65-189	<p>Pioneer Hills Trail and Trailhead RMP Amendment Tradeoffs for Alternatives B &amp; C Increasingly popular trail, family friendly hiking and biking, accessible via Pioneer Park. Will face complete degradation of recreation experience, positioned between Red Cliffs Parkway and NCH. High tortoise density and wildlife viewing threatened by the NCH. Additional future impacts with Alt. C of RMP Amendment.</p>	Refer to response to H.65-181.
H.65-190	<p>Owen's Loop Trail Info. Requests and Impact Issues from CSU's Scoping Comments not Addressed in DEIS Indirect and Cumulative Impacts: Noise, Viewshed/Scenic Qualities, Air Quality impacts from proximity to Red Cliffs Parkway and NCH interchange</p>	Refer to response to H.65-181.
H.65-191	<p>Owen's Loop Trail RMP Amendment Tradeoffs for Alternatives B &amp; C Degradation of recreation experience in this BLM- designated Intensive Use Area.</p>	Refer to response to H.65-181.
H.65-192	<p>City Creek Trail Info. Requests and Impact Issues from CSU's Scoping Comments not Addressed in DEIS Indirect and Cumulative Impacts: Noise, Viewshed/Scenic Qualities, Air Quality impacts from proximity to Red Cliffs-Parkway and NCH interchange</p>	Refer to response to H.65-181.
H.65-193	<p>City Creek Trail RMP Amendment Tradeoffs for Alternatives B &amp; C Degradation of recreation experience in this BLM- designated Intensive Use Area.</p>	Refer to response to H.65-181.

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<b>Letter #- Comment # or Public Concern Statement #</b>	<b>Comment</b>	<b>Response</b>
H.65-194	<p>Broken Mesa Trail Info. Requests and Impact Issues from CSU's Scoping Comments not Addressed in DEIS Direct, Indirect and Cumulative Impacts: Noise, Viewshed/Scenic Qualities, Air Quality impacts from exposure to NCH below the trail to the south</p>	Refer to response to H.65-181.
H.65-195	<p>Broken Mesa Trail RMP Amendment Tradeoffs for Alternatives B &amp; C Degradation of recreation experience, with trail's setting impacted by the Project</p>	Refer to response to H.65-181.
H.65-196	<p>Mill Creek Trail and Mill Creek Trailhead Info. Requests and Impact Issues from CSU's Scoping Comments not Addressed in DEIS Direct, Indirect and Cumulative Impacts: Noise, Viewshed/Scenic Qualities, Air Quality impacts from proximity to Project's connection to Washington Parkway Extension. Impacts on Mill Creek Trail and access to Elephant Arch, Mustang Pass, Ice House, Sand Hill, and Dino Cliffs trails, all popular trails for equestrians</p>	Refer to response to H.65-181.
H.65-197	<p>Mill Creek Trail and Mill Creek Trailhead RMP Amendment Tradeoffs for Alternatives B &amp; C Degradation of recreation experience, including for equestrians, with trail's setting impacted by the Project</p>	Refer to response to H.65-181.
H.65-198	<p>Bone Wash, Sand Hill, Dino Cliffs, and Grapevine trails Info. Requests and Impact Issues from CSU's Scoping Comments not Addressed in DEIS Direct, Indirect and Cumulative Impacts: Noise, Viewshed/Scenic Qualities, Air Quality impacts from proximity to Project's connection to Washington Parkway Extension</p>	Refer to response to H.65-181.
H.65-199	<p>Bone Wash, Sand Hill, Dino Cliffs, and Grapevine trails RMP Amendment Tradeoffs for Alternatives B &amp; C Degradation of recreation experience with trail's setting impacted by the Project</p>	Refer to response to H.65-181.

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H.65-200	<p>Cottonwood Canyon Wilderness trails incl. Ice House, Mustang Pass, Middleton Powerline, Millcreek, Bone Wash trails</p> <p>Info. Requests and Impact Issues from CSU's Scoping Comments not Addressed in DEIS</p> <p>Direct, Indirect and Cumulative Impacts: Noise, Viewshed/Scenic Qualities, Air Quality impacts from NCH, located approx. two miles from wilderness area</p>	<p>Refer to responses to H.65-181, H.65-170, and H.65-555.</p>
H.65-201	<p>Cottonwood Canyon Wilderness trails incl. Ice House, Mustang Pass, Middleton Powerline, Millcreek, Bone Wash trails</p> <p>RMP Amendment Tradeoffs for Alternatives B &amp; C</p> <p>Quality of recreation on trails leading into Cottonwood Canyon Wilderness degraded, and impacts to unconfined, primitive experience, incl. dark skies, natural quiet, and solitude</p>	<p>Refer to responses to H.65-181, H.65-170, and H.65-555.</p>
H.65-204	<p>Simply based on the review in the table above, changes in the existing RMP's RMZ should not be allowed, as this will irreparably damage the experience of quiet recreation within the NCA, and completely dilute the attributes for which the NCA was designated in first place.</p> <p>8. While the DEIS does indicate the number of acres affected by a change in the RMZ from Frontcountry to Rural due to the Project, it does not evaluate actual impacts of the NCH on the acreage of the ROW area, or on other areas exposed to the highway alignment from the standpoint of views, noise, air quality, and quality of wildlife habitat. As indicated in the table above, there are major impacts on recreation resources of the greater areas surrounding each of the proposed alignments in Alternatives 2, 3, and 4.</p>	<p>The analysis recognizes that adverse impacts to recreation and visitor experience would occur as a result of the Northern Corridor alternatives. The analysis has also been revised to clarify types of impact for trails within the ROW, as opposed to beyond the ROW.</p> <p>Refer also to responses to NCA-01 and 14450-2.</p>
H.65-205	<p>The DEIS states</p> <p>" .... all alternatives would require alteration or closure of portions of the existing trails and consideration during design on how to or if to accommodate trail crossings"</p> <p>DEIS at 3-131.</p> <p>This statement raises a major concern that trail crossings potentially will not be accommodated. For the possible accommodations mentioned on p. 3-131, the recreation visitor's experience will be negatively impacted, whether having to navigate a grade-separated culvert, travel along the NC's road profile, and/or cross the NCH's roadway.</p>	<p>Between the Draft and Final EIS, UDOT has amended the POD submitted to the BLM. Based on the design features contained in the revised POD, the BLM has revised the analysis to clarify that under-road passages for each of the existing recreational trails that cross the ROW would be provided and that the paved trail along the proposed Northern Corridor would not connect to existing trails. The revised analysis recognizes that use of under-road passages may adversely affect the user experience.</p>

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H.65-206	<p>The DEIS fails to address overall impacts to recreation experiences, specifically those mentioned in Scoping Comments, such as</p> <p>a. Cumulative effects and BLM's mitigation of the Project's noise and air pollution experienced by recreation visitors in the NCA, as well as the loss of recreation in quiet, natural spaces. Just the noise impacts alone could produce 70-80 decibels continuously by the year 2040. Studies have shown that this level of noise will increase heart rate, blood pressure, and cortisol. The easily-accessed sanctuary of protected trails that currently offer physical, mental, and emotional benefits to visitors will be lost. No mitigation measures are discussed re. noise. Such approaches might include decreased speed limit (30 mph or less), and use of under/overpasses for trails.</p>	Refer to responses to NOI-01 and H.65-548.
H.65-207	<p>Impacts to the viewshed for recreation visitors from increased threat of catastrophic wildfire caused by issues including vehicle incidents on the roadway, and careless tossing of lit cigarettes. Impacts of litter from the roadway ending up in the NCA's recreation areas.</p>	While litter can be associated with roadways, the road would not provide direct access to the existing trail network, which would limit the proliferation of litter. Refer also to response to FIRE-02.
H.65-208	<p>A major factor influencing recreation experience is habitat quality. Visitors hope to observe desert tortoises and other wildlife while on trails. The connection between direct impacts to wildlife habitat and what motivates and enhances the experience of hikers, bikers, photographers, birders, and equestrians is not made in the DEIS. The Project will have a variety of negative impacts on this aspect of recreation.</p>	The analysis has been revised to recognize that impacts to flora and fauna, as detailed in Sections 3.2 through Section 3.5 of the EIS, may adversely affect the visitor experience.

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H.65-209	<p>d. The DEIS does not indicate how the BLM will prevent new potential ease of access and related social trails resulting from the NCH.</p> <p>e. Not addressed are impacts to and mitigation measures specifically for equestrian users, relating to exhaust, dust, and noise emissions from the NCH.</p> <p>f. The BLM has benefitted from strong relationships with different groups who use and care about the Red Cliffs NCA. One such group is the Backcountry Horsemen, Southwest Chapter, which has demonstrated long-standing efforts in working with BLM, providing stewardship within the Red Cliffs NCA. The Project could have negative effects on this relationship and the group's ability to continue providing support.</p>	<p>Between the Draft and Final EIS, UDOT has amended the POD submitted to the BLM. Based on the design features contained in the revised POD, the BLM has revised the analysis to clarify that under-road passages for each of the existing recreational trails that cross the ROW would be provided and that the paved trail along the proposed Northern Corridor would not connect to existing trails. The change in experience for all potential users is analyzed in Section 3.15.2.2 of the EIS.</p> <p>Refer also to response to 14450-2.</p> <p>The BLM values the efforts of volunteer stewards who aid in the protection of the NCA and its values. The proposed actions analyzed in the EIS would not reduce opportunities for stewardship, education, or other community outreach within the Red Cliffs NCA.</p>
H.65-219	<p>The BLM failed to address any of the recreational/equestrian concerns made in the scoping comments; including but not limited to what the impacts would be to the Elephant Arch Trail, Mustang Pass, Ice House trail, and Dino Cliffs trails. What kind of mitigation measures would be taken to insulate equestrians and other users from the noise, dust and exhaust generated by a four- lane highway? These particular trails are very unique - showing unusual rock formations, lava fields and beautiful views of the St. George/Washington area. The NCH would negatively impact the enjoyment of all of these trails inasmuch as access would be difficult and the very things that make them unique would be destroyed by the highway.</p>	<p>Refer to response to H.65-181.</p>
H.65-236	<p>Concerningly, the Draft EIS failed to analyze indirect impacts to 11 nearby trails from which Alternative 3 could be seen and heard.</p>	<p>Refer to response to H.65-181.</p>

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H.65-237	<p>The Draft EIS claims that Alternative 5 would impact 0.3 miles of 5 existing trails. DEIS at Table 3 .15-8.</p> <p>This analysis does not make sense because the DEIS also states that: "The Red Hills Parkway Expressway environmental analysis is based on a conceptual roadway design that assumes no additional ground disturbance outside the current fencing would be necessary." DEIS at 3-57.</p> <p>Thus, the only direct impact from Alternative 5 would be to the Red Hills Parkway Path, which could be fully retained with appropriate modeling of the Alternative 5.</p> <p>Alternative 6 would impact zero trails in the Red Cliffs NCA.</p>	<p>The analysis has been revised to clarify the nature of potential trail impacts related to Alternative 5 and identified in the referenced table.</p>
H.65-295	<p>Under Alternatives 2 through 5, reasonably foreseeable future actions that may cumulatively affect recreation and visitor services in the recreation analysis area include granting special use permits for a variety of recreational tours and events throughout the SGFO, ongoing BLM travel management planning, and BLM acquisition of non-Federal lands within the Red Cliffs NCA. BLM acquisition of non-Federal lands within the Red Cliffs NCA would be entirely beneficial for recreation and visitor services because it would help preserve the existing recreation setting. BLM approval of special use permits would not permanently impact recreation and visitor services but could temporarily limit visitor access to recreation facilities during events or tours. During special events or tours, visitor experience could be altered by the increased use and presence of people, but these activities are subject to BLM approval and therefore are assumed to be consistent with the BLM's recreation management objectives. For these reasons, cumulative impacts to recreation and visitor services from issuance of special use permits is expected to be minor and temporary. Issue 14. Alternative 5 should not be lumped with alternatives 2-4 in the assessment of impact since it is much less. 15. The potential future development of private in-holdings in zone 3 would have major impacts.</p>	<p>The analysis has been revised to separate Alternative 5 from Alternatives 2 to 4. While acquisitions are recognized as reasonably foreseeable, the analysis only includes reasonably foreseeable actions described in Table 3.28-2 of the EIS. The BLM's acquisition of private in-holdings would include management in keeping with the Red Cliffs NCA RMP. Therefore, no change to the analysis has been made as it relates to private in-holdings.</p> <p>Refer also to response to A.05-29.</p>

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A.25-50	<p>NC alternatives through Red Cliffs would impact existing trails and alter views for those who enjoy those trails. We hope that BLM is giving serious thought to additional controls on Special Recreation Permits.</p> <p>Currently “commercial SRPs are limited to 10 percent of the overall visitation” per the DEIS. With Red Cliffs visitation at 190,000 (October 1, 2018, and September 30, 2019), 10 percent comes to 19,000. Although we don’t know what SRPs entail, as this area grows and visitation to Red Cliffs increases so will that 10 percent. If SRPs put more pressure on Red Cliff’s resources just by virtue of the sheer number of many people in one area at the same time, perhaps straying off trails, etc., the number of SRPs should be limited.</p>	<p>Comment noted. As described in Chapter 1 of the EIS, the purpose of and need for BLM’s action is related to UDOT’s application for a ROW. Therefore, it is not appropriate for the BLM to consider amendments to existing criteria for issuing SRPs within the Red Cliffs NCA in this EIS. Should the BLM determine the need for such an amendment in the future, it could be considered in a subsequent NEPA process.</p>
H.65-499	<p>1. The southeast portion of the 11,668-acre Cottonwood Canyon Wilderness is located one mile from the proposed NCH, and portions of the Mustang Pass and Mill Creek trails used to access the wilderness are located less than ½ mile from the highway. How will the increased noise, air pollution, litter and visual/scenic disruption impact visitor experience in-route to, and inside, this wilderness area? Addressed in DEIS: No.</p>	<p>Refer to responses to H.65-181, H.65-170, and H.65-555.</p>
H.65-528	<p>1. Direct, indirect and cumulative impacts to recreation on the T-bone trail which would be fragmented by the Project. This is an easily accessed, local favorite for hiking and trail running which has experienced an increase in use from 745 visits in 2015 to 910 in 2019. Addressed in the DEIS: No.</p>	<p>Refer to response to H.65-181.</p>
H.65-529	<p>. Direct, indirect and cumulative impacts to recreation on the Cottontail trail which would be fragmented by the Project. This trail is very popular with residents of Green Springs who use it to access Middleton Powerline, Mustang Pass and Ice House trails. A trail counter should be placed on this trail to record annual usage. Addressed in the DEIS: No.</p>	<p>Refer to response to H.65-184.</p>
H.65-530	<p>3. Direct, indirect and cumulative impacts to recreation on the Pioneer Rim and Pioneer Hills trails which are sandwiched between Red Hills Parkway and the Project. These trails would be changed forever by the sights, sounds and inevitable highway litter and vehicle emissions which would come from the additional highway. In an area favored by families and children because of its proximity to the "Sugarloaf," this would be a completely different experience. The Pioneer Hills trailhead use has nearly doubled from 2015 to 2019, increasing from 504 visits to 1050 visits. Addressed in the DEIS: No.</p>	<p>Refer to response to H.65-181.</p>

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H.65-531	4. Direct, indirect and cumulative impacts to recreation on the Owen's Loop and City Creek trails. These trails may be on the other side of the Red Hills Parkway, but the added congestion at the interchange of that highway and the Project would impact visitor experience there as well. City Creek trail system is considered an Intensive Use Area and visits in 2015 of 7,065 have increased to 9,200 in 2019. Addressed in the DEIS: No.	Refer to response to H.65-181.
H.65-532	5. Direct, indirect and cumulative impacts to recreation on the Broken Mesa Trail. Hikers or mountain bikers coming down off of Broken Mesa would have an experience of heading into the highway area with associated noise, litter and visual disturbance. Addressed in the DEIS: No.	Refer to response to H.65-181.
H.65-533	6. Direct, indirect and cumulative impacts to recreation on the Ice House, Mustang Pass and Middleton Powerline trails which are all within one mile of the proposed highway with disturbances similar to those mentioned for Broken Mesa trail. Addressed in the DEIS: No.	Refer to response to H.65-181.
H.65-534	7. Direct, indirect and cumulative impacts to recreation quality related to increased noise pollution. 32-46 thousand vehicles per day would travel at minimum speeds of 55 mph through the heart of the NCA by the year 2040, producing an average of 70-80 decibels of traffic noise continuously. Studies have shown that that level of noise will increase heart rate, blood pressure and cortisol. Visitors to Red Cliffs seek an experience of natural quiet and solitude in a designated NCA, not highway noise. Addressed in the DEIS: No.	Refer to responses to NOI-01 and H.65-548.
H.65-535	Direct, indirect and cumulative impacts to recreation quality related to increased ease of access that will likely cause new social trails and trampling of the vegetation. Addressed in the DEIS: No.	Between the Draft and Final EIS, UDOT has amended the POD submitted to the BLM. Based on the design features contained in the revised POD, the BLM has revised the analysis to clarify that the paved trail along the proposed Northern Corridor would not connect to existing trails. Therefore, no new direct access would be provided, which reduces the potential for proliferation of social trails.
H.65-536	9. Direct, indirect and cumulative impacts to recreation quality related to increased air pollution caused by vehicle emissions. Addressed in the DEIS: No.	Refer to response to 14450-2.

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H.65-537	10. Direct, indirect and cumulative impacts to recreation quality related to the Project's connection to the Washington Parkway Extension (WPE) which would negatively impact recreation experience on the Mill Creek, Bone Wash, Sand Hill, Dino Cliffs, and Grapevine Trails. Addressed in the DEIS: No.	The analysis has been revised to address potential cumulative impacts related to Washington Parkway. Refer also to response to DP-07.
H.65-538	11. Direct, indirect and cumulative impacts to recreation quality on trails that lead to the Cottonwood Canyon Wilderness which is managed for unconfined and primitive recreation and to preserve natural quiet, dark night skies and the experience of solitude. These trails include: Ice House, Mustang Pass, Middleton Powerline, Millcreek and Bone Wash. Addressed in the DEIS: No.	Refer to responses to H.65-170, H.65-181, and H.65-555.
H.65-539	12. Direct, indirect and cumulative impacts to recreation quality related to visual disturbance on all 15 listed above. Addressed in the DEIS: No.	The analysis recognizes that visual impacts would adversely affect the recreation setting. Impacts related to visual disturbance are detailed in Section 3.13 of the EIS and the associated visual resources technical report appended to the EIS. The Visual Contrast Rating Worksheets included in the technical report detail the specific landscape characteristics that are indicative of many of the trails analyzed and identified as impacted in the recreation and visitor experience analysis.
H.65-541	14. Direct, indirect and cumulative impacts caused by direct habitat loss that would change visitor experience of a familiar and much-loved landscape. These include loss of soil crust, increased erosion, loss of native vegetation and wildlife, more invasive and exotic weeds, higher risk of catastrophic wildfire, destruction of highly-scenic viewsheds, and more litter, noise and air pollution. Addressed in the DEIS: No.	The analysis has been revised to recognize that impacts to flora and fauna may adversely affect recreation and visitor experience. Detailed analysis of these impacts are included in Sections 3.2 through 3.5 of the EIS. In addition, Section 3.7 of the EIS describes impacts related to geology and soils.
H.65-542	15. Direct, indirect and cumulative impacts caused by loss of access to recreation in quiet, natural spaces. Time spent in nature has been proven to reduce the stress hormone cortisol and increase physical, mental and emotional health. As Washington County's rapid growth continues, the health benefits that come from having an easily-accessible, 130-mile network of trails protected in our Red Cliffs NCA must be protected. There is a strong sense of local ownership and commitment to stewardship by local residents who do not want to see their trails and their sanctuary compromised. Addressed in the DEIS: No	Comment noted. The analysis recognizes that increased noise could adversely impact the recreation setting and adversely impact the visitor experience for users.

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H.65-545	18. Mitigation measures, if any, for diminished recreation experience on trails directly and indirectly affected by the highway. Addressed in the DEIS: No.	Between the Draft and Final EIS, UDOT has amended the POD submitted to the BLM. Based on the design features contained in the revised POD, the BLM has revised the analysis to clarify that under-road passages for each of the existing recreational trails that cross the ROW would be provided and that the paved trail along the proposed Northern Corridor would not connect to existing trails.
H.65-546	19. How will hikers and bikers continue traveling north-south on the T-bone trail and east-west on the Cottontail Trail? Addressed in the DEIS: No.	Refer to response to H.65-545.
H.65-549	22. How will north-south travel on Cottonwood Springs Road be maintained if the NCH is built? This is an existing motorized road that is commonly used by trail runners and that provides access to the Yellow Knolls Heritage Site and many other trails in the NCA. Addressed in the DEIS: No.	As described in Section 3.17 of the EIS, while non-motorized, unpaved designated trails could be temporarily closed throughout construction, access to roads like Cottonwood Springs Road would remain open or an alternative route would be provided. Routes or trails are not anticipated to be permanently unavailable.
H.65-550	1- Impacts to the Mill Creek Trail which provides access to Elephant Arch, Mustang Pass, Ice House, Sand Hill and Dino Cliffs Trails, all popularly used by equestrians. Addressed in the DEIS: No.	Refer to response to H.65-181.
H.65-551	2. Impacts to the Pioneer Hills Trailhead and the nearby Pioneer Hills and Pioneer Rim Trails. Addressed in the DEIS: No.	Refer to response to H.65-181.
H.65-552	3. Impacts to the experience of quiet recreation by equestrians. Addressed in the DEIS: No.	Refer to response to H.65-542.
H.65-555	6. How the NCH would negatively impact equestrian experience in the nearby Cottonwood Canyon Wilderness Area which is located approximately 1 mile from the eastern terminus of the NCH. The Wilderness Act of 1964 directed that designated wilderness areas "shall be administered for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness, and so as to provide for the protection of these areas, the preservation of their wilderness character, ... " The Act recognized the value of preserving "an area where the earth and its community of life are untrammelled by man." Addressed in the DEIS: No.	As described in Table 3.1-1 of the EIS, the project would not impact wilderness areas. Refer also to response to H.65-170.

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H.65-556	<p>7. Impacts to the long-standing efforts of Back Country Horsemen of Utah Southwest Chapter, who have dedicated extensive volunteer time to maintaining and stewarding trails in the Red Cliffs NCA/DR. These projects include trail identification and marking; trailhead cleanup; installation of metal stepovers found at several trailheads to keep the tortoises within the boundaries while allowing for non-motorized access; and cleanup of tumbleweed piled almost 5 feet tall that had strangled the access road to the Cottonwood trailhead. Addressed in the DEIS: No.</p>	<p>Comment noted. The EIS recognizes and analyzes potential impacts to trails and associated facilities, which are maintained through efforts by the BLM, State and local agencies, and volunteer efforts. The BLM values the efforts of volunteer stewards who aid in the protection of the NCA and its values. The proposed actions analyzed in the EIS would not reduce opportunities for stewardship, education, or other community outreach within the Red Cliffs NCA.</p>
H.65-626	<p>Competitive Sporting Events: True Grit Epic, The Red Rock Rampage, The Huntsman World Senior Games, National Interscholastic Cycling Association High School Championship. Requests for Inclusion in the DEIS Scope:</p> <p>a- Event Timing: The DEIS should analyze the timing of these events in relation to critical tortoise life events like nesting and hatching of hatchlings. If events that attract thousands of visitors are hosted at the same time as nesting or hatching of hatch lings, this could appreciably reduce survivorship of the tortoises over a long period of time.</p> <p>b- Event Supervision: The DEIS should disclose a plan for event supervision and cleanup/litter pick-up after each of these events, including funding sources for the extra staff time.</p> <p>297</p> <p>c- Event Economic Impact: The DEIS should also disclose the economic impact to Washington County from each of these events.</p> <p>d- Constraints on Events: If competitive events are allowed to continue in Zone 6, this should not open the way for competitive events in other Reserve Zones 1-5.</p> <p>e- Visitor Impacts: The DEIS should analyze the number of visitors to each of these events and the most common negative impacts of visitation, i.e., litter, off-trail travel, poaching, vandalism, etc.</p> <p>Addressed in DEIS: No</p>	<p>The BLM SGFO RMP amendment alternatives contained in the EIS contain only planning-level decisions related to the criteria for issuing future SRPs. The federal actions analyzed in the EIS do not propose changes to existing SRPs and do not include implementation-level decisions such as approvals of new or reauthorization of past SRPs. The analysis contained in the EIS is appropriate to support these planning-level decisions.</p> <p>Each SRP and/or event undergoes individual review and analysis by the BLM annually. Issues such as event timing, supervision, impacts, and minimization and monitoring measures are assessed as part of these individual reviews.</p>

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H.65-624	<p>Address the following issues with recreation types in Zone 6 that would not contribute to the protection or recovery of the threatened Mojave desert tortoise:</p> <p>a. Commercial zip lines. The DEIS must also disclose a full list of all other special recreation permits and commercial recreation types that are currently offered or occurring in Zone 6.</p> <p>b. Off-trail mountain biking. Will fences be constructed around critical tortoise foraging, sheltering, breeding, and nesting grounds to protect them?</p> <p>c. Increasing recreation on the Bear Claw Poppy Trail System. Visits increased from 19,389 to 26,985 from the fiscal year ending Sept 30th 2015 to fiscal year ending Sept 30th 2019.144</p> <p>d. Increasing recreation at the Gap trailhead. Visits increased from 7,506 to 8,600 for the same time period as above.</p> <p>d. The DEIS must disclose plans for managing wide-spread dispersed camping across Zone 6</p> <p>e. The DEIS must disclose the areas where designated camping will be allowed in Zone 6 and how designated campsites will be monitored to prevent litter and predator subsidies, poaching, vandalism and dogs-off-leash. If designated camping will be open to motorized campers, travel trailers and RV's, the DEIS must disclose plans for any dump stations, showers or electric hookups.</p> <p>Addressed in DEIS: Partial</p>	<p>Section 3.15.1.3 of the EIS has been revised to reflect both competitive and non-competitive SRPs that currently occur within proposed Zone 6. Non-competitive SRPs are listed by activity. One of the climbing SRPs does contain a zip line.</p> <p>As part of the Amended HCP and SGFO RMP Amendment, efforts would be taken to limit off-trail mountain biking. This would be developed at the implementation-level, rather than planning-level, and would not preclude fencing. As described in Section 3.15.2 of the EIS, the SGFO RMP Amendment Alternatives B and C would close proposed Zone 6 to dispersed camping; however, Alternative C would allow for camping at designated sites. The determination of where sites would be designated is a future implementation-level Federal action.</p> <p>Other considerations raised in this comment would be appropriate for the development of a future implementation-level recreation area management plan, which is included as a management action for SGFO RMP Amendment Alternatives B and C.</p>

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H.65-544	<p>17. Mitigation measures analyzed should include highway speed limits of 30 mph or less; under or overpasses for fragmented trails; organization of regular litter pick-ups on the 15 trails impacted by the highways. Addressed in the DEIS: No.</p>	<p>Between the Draft and Final EIS, UDOT has amended the POD submitted to the BLM. Based on the design features contained in the revised POD, the BLM has revised the analysis to clarify that under-road passages for each of the existing recreational trails that cross the ROW would be provided and that the paved trail along the proposed Northern Corridor would not connect to existing trails.</p> <p>Maintenance of the road would be the responsibility of UDOT. The BLM considered potential speed limit requirements during the review of potentially reasonable mitigation measures for the Northern Corridor. The BLM determined additional mitigation measures to limit the speed limit on the Northern Corridor were not appropriate based on type of facility proposed and associated resource trade-offs associated with considering such a measure.</p>

**0.3.29 Socioeconomics**

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SOCIO-01	<p>BLM has not analyzed the impacts of Alternatives 2-4 to homeowners and neighborhoods near the NCA including human, health and safety impacts, highway lighting, traffic noise, litter, air pollution, quality of sleep, and quality of life. BLM has not considered the impact to property values which are likely to drop, and losses will be significant for those on lots that were charged extra to be near the Reserve.</p> <p>The BLM violates Reserve protections for the area that was to remain in perpetuity as stated in the 1995 Habitat Conservation Plan. Homeowners will be irreparably damaged as selling features that were once positives would become negatives such as massive traffic noise, increased traffic, and views featuring a highway.</p>	<p>Property value and other more detailed economic impact analyses are outside the scope of this EIS. Impacts related to property values, quality of sleep, health, and individual intent when residents purchased their homes would require a level of speculation that does not provide reliable information to differentiate between alternatives because all of the alternative alignments would be partially located near residential areas that would likely experience some level of impact, such as noise, light pollution, and highway views. Property acquisitions are quantified by alternative and presented for comparison in Tables 3.26-3 through 3.26-7 in Section 3.26 of the EIS.</p> <p>Section 3.26.2.1, Socioeconomics, of the EIS Direct and Indirect impacts from Alternatives 2, 3, and 4 has been revised to include: It is possible that the access produced at the eastern tie-in of Alternatives 2, 3, and 4 would be desirable for some current and future homeowners adjacent to the Reserve. It is also possible that residential properties would be negatively impacted with the addition of these alternatives, either by change in property value or aesthetic features provided by the Reserve.</p> <p>Noise impacts are assessed in Section 3.23 and conclude that an increase in noise levels is anticipated near the T-Bone Mesa Alignment, UDOT Application Alignment, and Southern Alignment because these alternatives propose that a new highway would be constructed in an area where no roadway currently exists. The Red Hills Parkway and One-way Couplet Alternatives are not expected to increase noise levels above the No Action Alternative (3-159). A separate</p>

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		<p>project analysis with a more detailed noise analysis would be required per the UDOT Noise Abatement policy and conducted after completion of the ROD if an action alternative is selected. In that separate project analysis, potential noise impacts would be determined through modeling and the need for noise abatement would be assessed.</p> <p>Visual impacts are expected, as described in Section 3.13 of the EIS. Actions to minimize visual impacts have been incorporated into design, as listed in Appendix D, Design Features of the Proposed Action and Mitigation Measures and Conditions of Approval, including highway and slope grading, paint color selection, site reclamation and revegetation, and lighting.</p> <p>Section 3.25 of the EIS addresses human health and safety.</p> <p>The Northern Corridor has been an element on local and regional master plans for many years. The inclusion of an element such as a road on a master plan does not require any agreements or permissions. Similar to any other master planned element, the appropriate processes must be followed before that element becomes a reality whether it is a future water line, park, fire station, or road. The elements on a master plan are there to inform the public of possible future planned improvements that could occur.</p> <p>The 1995 HCP states, “Until such time as an NCA designation is obtained and additional Federal monies are allocated for its management, the BLM will manage the reserve to benefit the Mojave desert tortoise in perpetuity.” This language was written as the Reserve was being established, prior to the establishment of the NCA in 2009 and for the management of the Mojave desert tortoise. The 1995 HCP language and its relationship to individual home values or</p>

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		agreements made at the time of individual home purchases are outside the BLM’s decision authority and outside the decision space for this EIS. BLM has prepared this EIS in accordance with applicable laws and regulations to respond to the application submitted for a ROW grant within the NCA.
A.02-1	We have been told that it will help relieve the congestion on Exit 10, but how could this be? We believe that many travelling from the west will find this to be a short-cut to Costco, other businesses, and also the freeway. People will turn south from Washington Parkway onto Green Springs for a direct route to the freeway, adding to the traffic in our area, and adding even more congestion at Exit 10. We see many potential problems.	As detailed in Appendix J, Highway Alternatives Development Technical Report, regional traffic operations were evaluated using the DMPO Travel Demand Model, which is calibrated to represent 2019 base year travel conditions and projects traffic out to 2050. While traffic patterns are likely to change with implementation of the Northern Corridor, traffic operation projections show that the Northern Corridor will help alleviate congestion at Exit 10 and maintain Level of Service C operations in the 2050 planning year.
5106-1	The northern corridor plan intersects the red hills parkway not far from the intersection with the snow canyon parkway and Bluff street. The proposed intersection of northern corridor with red hills parkway would hinder flow on red hills and create a short but very congested stretch from there to the intersection at bluff. You will be aware that the intersection at bluff is already messy with slow signals due to lack of visibility and steep approaches. Adding traffic to the red hills parkway in that area would be frustrating to all users of 18, red hills and snow canyon parkways plus bottleneck the planned northern corridor.	The traffic operations at the intersection of the Northern Corridor and Red Hills Parkway and its effects to the nearby intersections were evaluated as part of the regional travel demand modeling prepared for the project. Traffic operations at the Northern Corridor and Red Hills Parkway intersection would operate at an acceptable level of service. Additionally, the traffic operations at Bluff Street and Snow Canyon Parkway do not fail as a result of the implementation of the Northern Corridor.

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A.11-1	<p>In reviewing the traffic studies referenced in Appendix J, I don't see any analysis of who would be driving on this road and where they would be travelling to. The only population that this road will serve is anyone living in the Santa Clara/Ivins/Snow Canyon/Green Springs area that is traveling north on I-15. This road will not save them any time or mileage but will give them an alternate to the Green Springs exit when coming from the north or traveling to the north on I-15. Residents of Ivins and Santa Clara will take the Dixie or Bluff street exits if they are traveling south on I-15. The Northern Corridor is not going to ease any traffic on Bluff Street as anyone traveling onto Red Hills Parkway or the Northern Corridor will be utilizing the same roads to connect to the Northern Corridor via Red Hills Parkway. Drivers will still need to use the same arterial roads enroute to the Northern Corridor.</p> <p>Most travel by residents of the Ivins/Santa Clara area to the Green Springs area is for shopping and business. The Northern Corridor will not connect those folks to the Costco's, Walmarts, Red Cliffs Mall, restaurants, etc. They will continue to use Red Hills Parkway. In order to ease traffic on Red Hills Parkway, building a Costco and a Walmart in Santa Clara would have more benefit. So why are we building a multi-million dollar road through a protected area in order for a few travelers to have an alternate access to northbound traffic on I-15? Common sense tells me that widening Red Hills Parkway would be more beneficial as people are going to continue to use that road to get to where they are traveling to. The Northern Corridor is not going to solve any traffic failures at the Green Springs exit because the majority of the people using that exit are shopping or eating at the commercial businesses located at that intersection. The Northern Corridor will not ease any traffic failures on Bluff Street as people will still need to travel on Bluff street to connect to Red Hills Parkway which will then connect them to the Northern Corridor. Please provide an analysis of who this road will benefit and how. The majority of the growth in this county is in the Washington Fields, Little Valley, and near the airport. Wouldn't that area benefit from improved roads more than this area where very little growth is expected?</p>	<p>The Northern Corridor is just one component of the overall regional long-range transportation plan. Regional travel demand modeling, based on long-range growth projections, demonstrates that addressing mobility and congestion in the St. George/Washington/Santa Clara/Ivins metropolitan area is an important component of the overall regional transportation plan.</p> <p>Land use changes are under the purview of local municipalities and outside the jurisdiction/control of the BLM. The EIS must use the currently approved local and regional general plans as the basis for the analysis.</p>
A.11-2	<p>More recent studies that take into consideration the current building trends need to be conducted. I see very little potential for growth in the Santa Clara and Ivins area but other areas of this county are exploding and could use improved traffic flows.</p>	<p>This level of analysis is outside the scope of this EIS. Land use changes are under the purview of local municipalities and outside the jurisdiction and decision authority of the BLM. The EIS uses the currently approved local and regional general plans as the basis for the analysis.</p>

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Letter #- Comment # or Public Concern Statement #	Comment	Response
A.09-4	<p>Green Spring area resident, Tom Folks, now retired, had a lifetime career with the BLM and had, among other programs, responsibility for assessing a variety of travel management projects. He tells us "the Alternatives 2, 3 (UDOT) and 4 could all contribute to extraordinary and inappropriate traffic volume and vehicle noise on what is now the 'residential-type' Green Spring Drive by encouraging more 'highway-type' access through Green Spring to the I-15 Exit 10 area shopping opportunities for western county residents from Santa Clara, Ivins, Veyo, Dammron Valley, Diamond Valley, Central and Enterprise." "A projected increase in traffic could also clog these residential streets with traffic lights, contribute to greater vehicle emissions, potentially increase crime and vehicle/pedestrian accidents (at street crossings) and further exacerbate the existing traffic mess at I-15 Exit 10 which the Northern Corridor is intended to relieve." Tom Folks adds: "the existing vehicle noise in the Green Spring area (from I-15 and existing Green Springs Drive traffic) would also be increased by traffic volume added from the west by Alternatives 2, 3 or 4 despite the topography involved."</p>	<p>Though some of this may likely occur, the travel demand modeling shows that the overall traffic pattern shifts resulting from the Northern Corridor would help reduce congestion at Exit 10, and that traffic on Green Spring Drive, though increased, would be within acceptable levels for this type of roadway in an urban area as identified in the City of Washington's and DMPO's transportation master plans.</p>
H.04-1	<p>The proposed corridor would highly impact homes in the Green Springs area, both where the corridor would connect to the Washington Parkway, and by increased usage of the proposed connection to Green Springs Drive, Fairway Drive and other such connections, including the Main Street through the Brio subdivision.</p>	<p>Refer to responses to A.09-4 and SOCIO-01.</p>

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5872-1	<p>We know first hand of the traffic congestion at Exit 10. And knew of the proposal to build the Northern Corridor Highway. But we also knew of the promise to protect the RCNCA/DR in exchange for development through the county. We knew about the insufficiency of the proposed mitigation and we know that there are better alternative road improvements outside the RCNCA/DR. It is the southern side of the metro area that is projected to be the high growth area, with the northern side already fairly built-out and constrained by geography, federally managed public lands including the Red Cliffs National Conservation Area, and the Shivwits Band of Paiutes tribal lands. It challenges the imagination to project large increases in traffic volumes along the north side of the metro area. It is completely within reason to expect increased traffic from all outlying areas to the major shopping, service and medical centers in central St George and Washington, through the two intersections that are projected congestion areas. Bypassing them with a new highway would not ease the congestion of traffic whose destinations are in close proximity. The whole concept upon which the Northern Corridor is predicated is flawed. We need improved traffic flow to and through the congested intersections, not a way to bypass them. I don't understand how going through the Reserve will improve traffic flow through the two busiest intersections that are so far away from the BLM-preferred Alternative 3 route.</p>	<p>The travel demand modeling shows that overall regional traffic pattern shifts resulting from the Northern Corridor will help alleviate congestion at Exit 10 and maintain Level of Service C operations in the 2050 planning year. Additional information on travel throughout this area can be found by referring to Appendix L, Traffic Analysis Memorandum. Refer to response to A.02-1.</p>
A.18-5	<p>If a 4-lane highway is built within 500 feet of our home, we will lose the quiet, the scenic beauty, the wildlife that will be road-killed and driven away, and will receive in return a decrease in our property value, loss of privacy, and the constant threat of wildfires and potential evacuation because of the road as we experienced a month ago. The National Environmental Policy Act is to consider impacts to the human environment. Quality of life, safety to residents from wildfire and economic impacts from decreased property values were not addressed or evaluated in the DEIS and should be considered in developing and assessing alternatives in the final EIS.</p>	<p>Refer to response to SOCIO-01. Additionally, Section 3.22 Fire and Fuels Management of the EIS describes the environmental consequences of the alternatives in regards to wildfire.</p>

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Letter #- Comment # or Public Concern Statement #	Comment	Response
7295-1	<p>Since a Northern Corridor will dump around 100X more traffic on Washington Parkway, BLMs decision this year could drastically affect traffic next to homes all the way east to exit 13 on I-15. So specific traffic counts should be provided in your Final DEIS that include total vehicles per day for 2050 along the entire length of the Corridor all the way east to exit 13 on I-15. It must also include counts for any connector streets (current or planned) where traffic will increase: for ex, in Green Springs (like Concord Pkwy, Green Springs Dr., Fairway Dr.), Brio (like Rialto Pkwy, Main St), Warm Springs (Tortoise Rock Dr), Middleton &amp; Grand Heights (Cott Springs Rd, aka Turkey Farm Rd), etc. Will all these counts be included in BLMs analysis and Final DEIS?</p>	<p>Traffic on most roads throughout Washington County will increase by 2050 due to overall growth and development of the county, including the areas in Washington City surrounding Green Springs, Brio, and the Washington Parkway corridor between Green Spring Drive and I-15 Exit 13. As such, the increase of traffic on these other ancillary roads is due more to localized growth and development resulting in local residents using these roads to access regional routes such as I-15, Red Hills Parkway/Buena Vista Boulevard, and the Northern Corridor. Preparation of the traffic volumes for the localized connector streets is beyond the scope of the EIS and would not provide relevant information for the decision space of this EIS. Additional information on travel throughout this area can be found by referring to Appendix L, Traffic Analysis Memorandum.</p>
7295-4	<p>In 2018, DMPO was using a projection of 32,000 vpd by 2040 for the UDOT Alignment (see the 3/26/18 Spectrum article, their 3/28/18 open house, etc.). But BLM is using a projection of 9,000 to 22,000 vpd by 2050 for the UDOT Alignment. Will the Final DEIS address this discrepancy?</p>	<p>The Final EIS focuses on the most current data available and does not include an explanation of differences in projections from other past modeling efforts. The models are continuously updated based on population growth projections, and many other factors such as construction of new roadway projects (such as Washington Parkway), new development (residential, commercial, and similar) and the resulting changes in traffic volumes in certain areas. It is not unusual that the modeling results may fluctuate slightly, including deviation between the 22,000 vehicle trips per day estimated for the EIS and the 32,000 in the DMPO's previous estimate.</p>

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7295-5	<p>Its still not clear why traffic estimates for the UDOT Alignment (Alt 3) drop off by 59%, while estimates for the T-Bone Alignment (Alt 2) drop off by only 5%. Looking at attachment 1, why would 17,000 vehicles choose to travel between point A &amp; point E, with only 9,000 vehicles choosing to travel between point B &amp; point E? For someone near point A or B who is trying to get to point E or F (or vice versa), both alignments would seem quite similar: so what would explain these numbers being cut in half?</p>	<p>Travel demand modeling indicates that the difference is due to the volume of vehicles expected to enter or exit the Northern Corridor via Cottonwood Springs Road. The traffic demand model looks at land uses, traffic counts on existing roads, travel times, travel distances, and other factors to estimate how a new travel route would change traffic patterns in a particular area. Of the proposed roadways included in Alternatives 2, 3, and 4, the T-Bone Mesa Alignment provides the most direct route to get from Washington over to the Ivins/Santa Clara area, but people heading to St. George would need to travel farther on Cottonwood Springs Road to get to the main area of St. George. The UDOT Alignment, located farther south, draws traffic that would be headed across the NCA and provides a shorter distance to drive on Cottonwood Springs Road to connect to St. George. In addition, traffic on Buena Vista Boulevard is much lower north and east of Green Spring Drive than it is west and south on Red Hills Parkway so there are many vehicles using this route instead of the entire length of the Northern Corridor for their overall east-west travel.</p>

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Letter #- Comment # or Public Concern Statement #	Comment	Response
7295-6	<p>Please look at attachments 1 &amp; 2 together: As you can see, 2050 east/west travel demand from district 1 to districts 6-9 totals 55,857 trips. We can imagine the reverse might also be true and that travel from districts 6-9 to district 1 would be similar. If so, this represents over 100,000 east/west trips per day. So two questions arise:</p> <p>1--why do DEIS estimates show only 9,000 to 17,000 trips funneling through point E, when total east/west travel demand would likely exceed 100,000? Even if more than half these east/west travelers were using other routes, or getting on/off the Corridor at point C or D, we would still expect much higher numbers to be funneling through point E.</p> <p>2at point E, why do DEIS estimates show such a disparity between Alt. 2 &amp; 3? Looking at attachment 2, it would seem that travelers between Hurricane &amp; Ivins would be just as likely to use either alignment. This would hold true for travel between ANY city in district 1 and ANY city in districts 7, 8, &amp; 9 including Salt Lake County and any other county northeast of us. It would even hold true for some of the travel between district 1 and district 6. Please explain.</p>	<p>The numbers in Figures 1 and 2 of Appendix J refer to total traffic between zones, not one-direction travel.</p> <p>The disparity between the 9,000 vehicles east of Cottonwood Springs Road and the 22,000 vehicles west of Cottonwood are due to the overall travel length and travel time of available transportation options and the number of vehicles expected to enter or exit the Northern Corridor via Cottonwood Springs Road. The traffic demand model looks at land uses, traffic counts on existing roads, travel times, travel distances, and other factors to estimate how a new travel route would change traffic patterns in a particular area. For the three alternatives in the NCA, the T-Bone Mesa Alignment provides the most direct route to get from Washington over to the Ivins/Santa Clara area, but people heading to St. George would need to travel farther on Cottonwood Springs Road to get to the main area of St. George. The UDOT Alignment, located farther south, draws traffic that would be headed across the NCA and provides a shorter distance to drive on Cottonwood Springs Road to connect to St. George. In addition, traffic on Buena Vista Boulevard is much lower north and east of Green Spring Drive than it is west and south on Red Hills Parkway so there are many vehicles using this route instead of the entire length of the Northern Corridor for their overall east-west travel.</p> <p>Refer to response to 7295-4.</p>
7295-7	<p>Regarding the map in Vol. 3, page 335: are the numbers listed there showing all traffic both TO AND FROM District 1? Or do those numbers only show traffic FROM District 1? It's not clear since p. 333 refers to "traffic demand BETWEEN District 1 and surrounding areas", while p. 334 refers to "travel FROM District 1".</p>	<p>Yes, the total trips listed where references are already inclusive of both westward and eastward travel.</p>

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Letter #- Comment # or Public Concern Statement #	Comment	Response
7295-8	<p>Just wondering about the traffic numbers listed in Volume 3 (page 264 of 476):</p> <p>Alternative 2 shows 18,000 vpd dropping by 5% to end up with 17,000 vehicles/day at the point where traffic begins cutting between Green Springs homes (as close as 29 feet of backyards)</p> <p>Alternative 3 (Preferred) shows 22,000 vpd (the largest number) dropping by a significant 59% to end up with 9,000 vehicles/day at the point where traffic begins cutting between GreenSprings homes (as close as 29 feet of backyards)</p> <p>Alternative 4 shows 2,000 vpd, with NO drop, to end up with 2,000 vehicles/day at the point where traffic begins cutting between Green Springs homes (as close as 29 feet of backyards)</p> <p>1)what would explain such a large discrepancy in the N. Corridor traffic drops for these 3 alternatives? Alt. 2 &amp; 4 drop 0-5%, so why does Alt. 3 drop 59%? Is this a typo? If so, what is the true number of vehicles/day that would be funneled through the backyards of Green Springs homes? (...Specifically, the location where the proposed Corridor meets Concord Parkway and becomes Washington Parkway, and cuts through the subdivision).</p> <p>2)also please explain the discrepancy in the numbers above as compared to DMPO traffic numbers of 32,000 vehicles/day (as quoted in the 3/26/18 Spectrum article, and elsewhere).</p>	<p>Refer to responses to 7295-1, 7295-4, 7295-5, and 7295-6.</p>
11777-1	<p>consideration of the following should be carried forward in the Final EIS: Further consideration of CSUs Community Transportation Alternatives. The need for integrated land use and transportation planning to avoid self-inflicted traffic problems and future applications for highways on protected land. The need for consideration of traffic management technology and human adaptability.</p>	<p>These concerns are considered in the transportation planning process to the ability that transportation planning can reasonably do so. Transportation planning does not make land use decisions. Rather it uses current land use master plans as the basis for the planning analysis. Land use planning strategy and policy decisions that could affect transportation are made by local city and county officials.</p> <p>Local governments who manage land use policies in Washington County are participating in the NEPA process as Cooperating Agencies.</p> <p>Refer to response to ALTS-02 concerning the Community Transportation Alternatives.</p>

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11360-1	<p>We know first hand of the traffic congestion at Exit 10. And knew of the proposal to build the Northern Corridor Highway. But we also knew of the promise to protect the RCNCA/DR in exchange for development through the county. We knew about the insufficiency of the proposed mitigation and we know that there are better alternative road improvements outside the RCNCA/DR. It is the Southern side of the metro area that is projected to be the high growth area, with the Northern side already fairly built-out and constrained by geography, federally managed public lands including the Red Cliffs National Conservation Area, and the Shivwits Band of Paiutes tribal lands. It challenges the imagination to project large increases in traffic volumes along the north side of the metro area. It is completely within reason to expect increased traffic from all outlying areas to the major shopping, service and medical centers in central St George and Washington, through the two intersections that are projected congestion areas. Bypassing them with a new highway would not ease the congestion of traffic whose destinations are in close proximity. The whole concept upon which the Northern Corridor is predicated is flawed. We need improved traffic flow to and through the congested intersections, not a way to bypass them. I don't understand how going through the Reserve will improve traffic flow through the two busiest intersections that are so far away from the BLM-preferred Alternative 3 route.</p>	Refer to response to A.02-1.

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Letter #- Comment # or Public Concern Statement #	Comment	Response
10797-1	<p>The DEIS looks at predicted traffic at a number of intersections to justify that something must be done; none of these problems are really solved by the corridor other than assuming motorists will divert onto a winding, longer and out of the way route to avoid passing through town primarily to get to I-15. The East-West route chosen in the current DEIS that will supposedly alleviate traffic goes quite a bit north and out of the way for anyone trying to access I-15 N; this comment extends to the Washington Parkway which seems to assume that the Northern Corridor as proposed will be built and requires motorists on NCH to now head south again to access I-15. As someone who travels through these areas (Bluff, Sunset, Snow Canyon, Telegraph, River Road, etc.), the Red Hills Parkway Expressway option which minimizes impact to the environment, and costs significantly less would make a lot more sense, particularly having an access onto I-15 N/S directly from the expressway.</p> <p>Lets not kid ourselves - other than perhaps the north end Green Springs residents, few motorists will use that route as it is TOO FAR out of the way for the average driver to get to I-15 and provides no better access to the major shopping destinations (Target mall, Red Hill Mall, Sunset mall) where most of the congestion is building. If anything, it moves some traffic away from the business areas, an outcome I think business leaders would regret. I reiterate my first point what problem are we trying to solve? The Draft EIS shows that the Red Hills Parkway Expressway alternative along with the One-way Couplet Option, both located OUTSIDE the Red Cliffs, reduce traffic congestion better than the NCH, are more convenient for drivers and dont cause environmental damage. Washington County should optimize the design and implement the Red Hills Parkway Expressway and One-way Couplet alternatives.</p>	Comment noted.
A.20-14	App. L Traffic analysis; 11; Table 9. Comment: The word “East” is not a level of service. Assume it means the letter “E”. Change on all locations.	This typo has been corrected.
A.20-15	App. L Traffic analysis memo; 13; Table 10. Comment: Same comment as #15 above: The word “East” is not a level of service. Assume it means the letter “E”. Change all locations.	This typo has been corrected.

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A.27-2	The proposed road through the Red Cliffs Desert Reserve will do nothing to alleviate traffic at Exit 10. It loops around our neighborhood and back down to Red Hills Parkway. The only purpose for this road is to allow developers to build more homes. People living in these additional homes will most likely come back around and use Concord and Green Springs to get to shopping on the south side of I-15, thereby exacerbating the problem at Exit 10.	Refer to response to A.02-1.
A.27-4	The modeling used to come up with all of the transportation issues is flawed and Washington County has failed to disclose them despite being formally and informally requested to do so.	As detailed in Appendix J, Highway Alternatives Development Technical Report, regional traffic modeling was developed using the DMPO Travel Demand Model, which is calibrated to represent 2019 base year travel conditions and projects traffic out to 2050. The DMPO is a Cooperating Agency for this current analysis and has been coordinating with the BLM throughout the development of the EIS to assist in the accuracy of the modeling efforts. Additional information on travel throughout this area can be found by referring to Appendix L, Traffic Analysis Memorandum.

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A.39-13	<p>Previous traffic estimates are double what DEIS estimates now show—these discrepancies must be addressed:</p> <p>A. Alternative 3 discrepancies must be addressed: In DMPO's 3/28/18 open house (and 3/26/18 Spectrum article), the DMPO was using a projection of 32,000 vehicles per day (vpd) by 2040 for an alignment that looks just like Alt. 3 in the DEIS. But the 2020 DEIS is using a projection of 9,000-22,000 vpd by 2050 for the same alignment (see DEIS Vol. 3, p. 264 and 350). This discrepancy of 10,000-23,000 vpd represents an unexplained drop of 31%-72% (about HALF, which is huge). Why are 2018 estimates double what they are now?</p> <p>B. Alternative 2 discrepancies must be addressed: In DMPO's 5/16/2011 "Washington Parkway Cost/Benefit Study", the DMPO was using a projection of 32,000-46,000 vehicles per day (vpd) by 2040 for an alignment that looks just like Alt. 2 in the DEIS (see.). But the 2020 DEIS is using a projection of 17,000-18,000 vpd by 2050 for the same alignment (DEIS Vol. 3, p. 264 and 350). . This discrepancy of 15,000-28,000 vpd represents an unexplained drop of 47%-61% (about HALF, which is huge). Why are previous estimates double what they are now?</p> <p>C. Regarding how well a Corridor could alleviate traffic problems, were original estimates DOUBLE what they should have been? ...OR are current estimates undercounted? Either one or the other is true: For traffic estimates to drop by half is highly significant. Reasons for this discrepancy must be addressed in the FEIS. It's crucial to know for many reasons, including the following:</p> <ol style="list-style-type: none"> <li>1. If the new lower estimates are accurate, then the FEIS must acknowledge that the traffic numbers which once seemed to support a Northern Corridor alignment NO LONGER EXIST. (Perhaps this is the case, and a highway through the Reserve is no longer warranted, given that fact that Alternatives 5 &amp; 6 did as good or better at alleviating future congestion [see DEIS Vol. 3 p. 250-251]). If so, then County leaders and the public should be informed that previous estimates were DOUBLE what they should have been, and that a Corridor is no longer preferable to Alt. 5 or 6.</li> <li>2. If the new lower estimates are NOT accurate, then the FEIS must provide true estimates, and these must be included in projected noise studies so that residents nearby are given accurate notice of the traffic and noise that could await them.</li> </ol>	<p>Refer to responses to 7295-1, 7295-4, 7295-5, and 7295-6.</p> <p>Noise impacts are assessed in Section 3.23 and conclude that an increase in noise levels is anticipated near the T-Bone Mesa Alignment, UDOT Application Alignment, and Southern Alignment because these alternatives propose that a new highway would be constructed in an area where no roadway currently exists. The Red Hills Parkway and One-way Couplet Alternatives are not expected to increase noise levels above the No Action Alternative. A separate project analysis with a more detailed noise analysis would be required per the UDOT Noise Abatement policy and conducted after completion of the ROD if an action alternative is selected. In that separate project analysis, potential noise impacts would be determined through modeling and the need for noise abatement would be assessed.</p>

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A.30-2	<p>The One-way Couplet in Alternative number 6 would literally surround the newly constructed multiple high-density housing projects, office buildings, public library, elementary school and state courthouse, with traffic loads that were never contemplated for this residential and historic area. The adjacent Town Square Park, Washington County Library and other improvements were built in the past fifteen years in an effort to create a walkable and vibrant downtown in the City. The City has invested millions of dollars in betterments, installing landscaped medians and decorative lighting on St. George Boulevard, purchasing and assembling parcels of property for development and restoring historic buildings. These expenditures have been largely concentrated between St. George Boulevard and 100 South, resulting in new development of hotels, apartments, and businesses catering to tourists and the arts community. Further east on 100 South, Dixie State University's campus straddles both sides of 100 South already creating auto-pedestrian conflicts which will only become worse as Dixie State develops the properties to the north of 100 South. In addition, 100 South passes the historic St. George City Cemetery where many of the area's pioneers are buried, and the increased traffic along 100 South will negatively impact those who visit this historic part of the City.</p> <p>Meeting the future traffic need by funneling the added vehicles through this area would destroy our City's investments to achieve our goal to have a healthy, walkable and vibrant downtown and achieve the environmental goals of the Vision Dixie planning process. It would also make the area less safe for the children and other pedestrians and cyclists that frequent the area. In summary, the City will not agree to creating a 100 South-St. George Boulevard one-way couplet as proposed in Alternative number 6 which lies entirely outside BLM and UDOT jurisdiction and violates the northern corridor mandate in the OPLMA</p>	<p>Refer to response to H.65-277.</p> <p>Section 3.26.2.1 in the EIS discusses potential impacts to walkability, economic development, and property values/uses related to Alternative 6.</p> <p>Section 3.14.2.4 describes the direct and indirect impacts from Alternative 6 onto historic properties.</p> <p>Section 1.1 describes OPLMA Subtitle O, Section 1977 directs the Secretary to develop a comprehensive travel management plan in accordance with FLPMA and that, "in developing the travel management plan, the Secretary shall—(A) in consultation with appropriate Federal agencies, State, tribal, and local governmental entities (including Washington County and St. George City, Utah), and the public, identify one or more alternatives for a northern transportation route in the County."</p> <p>The range of Northern Corridor action alternatives considered in the EIS was developed in accordance with the CEQ's regulations implementing NEPA at 40 CFR 1500 and with the BLM NEPA Handbook. As described in Section 2.2 of the EIS, the BLM has analyzed alternatives that are within the BLM's decision-making jurisdiction as well as Alternative 6, which is outside the BLM's decision-making jurisdiction and the applicant's jurisdiction.</p> <p>Question 2a, CEQ, Forty Most Asked Questions Concerning CEQ's NEPA Regulations addresses the issue of alternatives outside the capability of the applicant or Jurisdiction of Agency.</p> <p>Question2a: If an EIS is prepared in connection with an application for a permit or other federal approval, must the EIS rigorously analyze and discuss alternatives that are outside the capability of the applicant or can it be limited to</p>

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		<p>reasonable alternatives that can be carried out by the applicant?                      Answer: Section 1502.14 requires the EIS to examine all reasonable alternatives to the proposal. In determining the scope of alternatives to be considered, the emphasis is on what is "reasonable" rather than on whether the proponent or applicant likes or is itself capable of carrying out a particular alternative. Alternative 6 was determined to be a reasonable alternative and has been evaluated in the EIS consistent with regulations and guiding documents for NEPA and OPLMA.</p>
A.30-3	<p>For these same reasons (see comment A.30-2), St. George opposes funneling more traffic onto Red Hills Parkway as proposed in Alternative number 5. Besides failing to comply with the northern corridor mandate set forth in the OPLMA, this alternative would destroy years of work and investment by the City to make this high-profile roadway a pedestrian and bike friendly thoroughfare. St. George has created a parkway with landscaped medians and constructed a popular trails system that overlooks the City with panoramic views of historic downtown St. George southward to the Arizona Strip and eastward towards Zion National Park. The City has worked to establish an inviting atmosphere along the parkway which includes the historic Pioneer Park and Sugarloaf with the iconic Dixie Rock, as well as a system of parks and overlooks that are popular with locals and visitors alike. The Washington County Water Conservancy District has constructed a world-class state of the art desert demonstration garden along Red Hills Parkway that reaches up to the boundary of the NCA Desert Reserve. In addition, many public facilities are located along Red Hills Parkway including the City's water and power offices, power generation facilities, water delivery facilities including a large water tank, streets department, Suntran transit bus facilities, and the city's fueling station. All of these would be negatively impacted by additional traffic and expansion of Red Hills Parkway and require relocation or removal of these existing facilities. To simply state that the visitor experience at these popular recreation areas along Red Hills Parkway "may" change but that the "overall experience would not be substantially altered" as stated in the Executive Summary is absolutely untrue.</p>	<p>Refer to Sections 2.2.5 and 3.26.2.1 in the EIS. Table 3.26-6 includes direct and indirect property impacts, acquisitions, and relocations that would result from the Red Hills Parkway Expressway Alignment. If an action alternative is selected in the ROD and if UDOT advances the roadway into final design, more detailed design would be required to determine more exact short- and long-term impacts to services. The level of analysis and engineering for all alternatives has been developed to a comparable level of detail and is sufficient for the comparison of alternatives and the planning-level decisions to be made in this EIS.</p>

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A.30-7	<p>"These comments are regarding the Northern Corridor EIS and specifically Alternative 6. Alternative 6 proposes a St George Blvd/100 South one-way couplet. The City of St. George believes that Alternative 6 will have a substantial negative impact on the quality of life for the core of our city. Furthermore, this will destabilize the commercial economic vitality of both streets, walkability for the downtown area and the University, impact residential houses and historic landmark sites, and disrupt the several plans and investments the city has made in the area. The city has been rebuilding the downtown for the past 20 years with policy decisions, projects, and funding. Alternative 6 will disrupt those rebuilding efforts and policy decisions.</p> <p>Several policies have been implemented and codified to revitalize the downtown. The city implemented the C-4 (downtown commercial) zone, in order to encourage and promote further creation of a vibrant and walkable downtown. The zone requires buildings to be built closer to the street and allows for residential units on top of commercial (mixed use). The downtown area is intended to be different than other areas in the city with slower traffic, pedestrian connectivity, pedestrian scaled streets, building massing, and walkability between the commercial and surrounding residential developments. The C-4 zoning provided the tools to create the vision, which led to the projects that have and will be built. Not only has the city been focused on creating a vision through zoning and other plans, the city has invested in the area. The city started purchasing properties and investing in the future of downtown. The city successfully purchased several properties and partnered with a developer to build City View, the first mixed use project in St. George. The project consists of 110 residential units, a 60-room boutique hotel, and ground floor commercial. Due to the success of City View, the city purchased a dilapidated hotel west of Ancestor Square. Currently, the city is working on a vision for the property that will enhance the other projects in the downtown.</p> <p>The excitement and energy of the aforementioned projects has encouraged private developers to invest in the downtown as well. Joule Plaza is mixed-use project that was completed this year with 197 residential units and ground floor commercial. Additionally, Orsini, another mixed-use project is being built at the former Dixie Care and Share location. All these projects rely on and promote a walkable diverse downtown that will further the vision and revitalize the area.</p>	Refer to response to A.30-2.

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	<p>Investing in the downtown has been an ongoing focus for the city. The above projects are only a few that the city has completed in the last 20 years. Other projects include Town Square, landscape enhancements on several streets, art around the corner displays, St George Blvd medians and street trees, restoration of the Opera House, parking structure, courthouse, street parking, wayfinding signs, and purchase of several residential properties for redevelopment. Furthermore, this area is host to several historic buildings and cemetery. Many of these, including the historic cemetery are located along 100 South. The increase in traffic and noise would have a substantial negative impact on these significant community sites. "</p>	
A.30-8	<p>The EIS addressed several of the concerns the city has with Alternative 6 and the impacts it has on providing multi-modes of transportation. A trend by many communities has been to reverse the impacts of one-way streets by restoring two-way traffic. In doing so, they have seen a decrease in accidents involving pedestrians, decrease in motor vehicles accidents, a more cohesive interaction between pedestrians and vehicles, and better balance. Contrary to what the EIS states regarding commercial viability as a result of one-way traffic, it has the opposite effect. According to Jeff Speck, "conversions greatly damaged downtowns by killing off retail and turning city streets into, essentially, surface highways (Speck <a href="https://www.cnu.org/publicsquare/2019/07/09/cities-benefit-one-way-two-way-conversions">https://www.cnu.org/publicsquare/2019/07/09/cities-benefit-one-way-two-way-conversions</a>).</p>	Refer to response to A.30-2.
A.30-9	<p>DSU has become one the fastest growing universities in the state, which has caused the University to expand their campus and provide housing for students. In 2014, the city, with the assistance of DSU, created a Student Pedestrian Emphasis Area (PEA). This PEA allows certain uses and densities, in order to support DSU and the growing student population. The goal was to provide housing for students closer to DSU and encourage walking and biking to campus. In addition to student housing, several of DSU's facilities are located north of 100 South. Alternative 6 would segregate DSU from existing student resources and cause potential safety issues and walkability concerns.</p>	Section 3.26.2.1 in the EIS describes the Dixie State University Pedestrian Emphasis Area and describes impacts, including that the one-way alignment may impact walkability of the area if traffic calming and safety design features are not implemented.

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13403-1	The traffic patterns observed by 2050 without the NCH are nowhere close to the traffic congestion experienced in major cities today, not even a small fraction. So, the modeling case to justify the highway does not make sense. Furthermore, any of the three alternative routes drawn through the nature reserve would hardly do anything to ease traffic congestion experienced today at St George Blvd. and I15 interchange, River Road, and the Telegraph Street and Green Springs intersection. That's because that's where people travel for their shopping, medical needs, dining, etc.. Any of those three alternate routes will not substantially change any of that traffic congestion.	Refer to responses to A.02-1 and A.11-1.
13940-1	The draft does not completely analyze the socio-economic effects or how adding new lands in Zone 6 could mitigate damage. Not only did you fail to listen to the public but you didn't include critical data, and some data was hard to understand.	Comment noted. Please refer to Section 3.26 of the EIS. Socioeconomics were analyzed per relevant BLM policy. Also refer to responses to A.05-5 and DATA-01.
A.25-10	Table ES.5-1: The table addresses Socioeconomics giving Alternatives 2, 3, and 4 credit for mitigating increased traffic expected with population growth while criticizing Alternatives 5 and 6 for the effects they would have on existing structures outside Red Cliffs and causing social and economic impacts. Alternatives 5 and 6 would also serve to mitigate the increased traffic and that should have been shown. Alternatives 2, 3, and 4 will impact socioeconomics of the area. The economy of this area has grown in large part because of the attractiveness of it which is enhanced by Red Cliff's vast, expansive, inspirational views. That will be impacted by the three alternatives and should have been included in the table.	Table ES.5.1 has been revised to include a statement that Alternative 5 and Alternative 6 would serve to mitigate increased traffic expected with the projected population growth.
A.42-6	According to Horrocks Engineers, the majority of growth in Washington County will be on the east side of I-15, spreading from the airport to the Toquerville/Hurricane area and also in the area between Ivins/Santa Clara and south and west of St. George. Given those predictions in tandem with the locations of the current major infrastructure, the proposed routing of the Northern Corridor through the RCNCA does not comport with the real needs east of I-15 and west of St. George. Authorizing the proposed right-of-way would do little to serve the emerging needs in the areas mentioned.	Refer to responses to A.27-4 and A.04-1.

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H.65-271	"We dispute the assumption that a utility corridor would be beneficial. The route of any alternative inside the NCA would be circuitous. Using existing utility ROWs along Red Hills Parkway would provide the same benefit at less cost and environmental impact."	Chapter 3 of the EIS describes the direct and indirect impacts associated with the BLM Red Cliffs NCA RMP Alternative C associated with Alternatives 2-4 which allows for a 500-foot corridor managed to include above and buried utilities. Future utility projects along Red Hills Parkway are outside the scope of the EIS.
H.65-272	"We dispute the assumptions that job, family income and development impacts would be significant. There is no basis presented to support these assumptions."	Refer to Section 3.26 Socioeconomics. It is not assumed that jobs, family income or development impacts would be significant. However, potential impacts to these elements are noted as a possibility if the proposed Zone 6 is established under the HCP action.
H.65-273	""Alternatives 2, 3, and 4, which include highway alignments through the Red Cliffs NCA, would provide minimal or no opportunities for additional business development in the areas that would be affected."" (DEIS at 3-166) Issue: 5. The conclusion presented addresses only that fact that these alternatives would provide no positive business impacts, but it does not consider the negative long-term tourism and recreation business impact. We contend that the Red Cliffs NCA provides significant opportunity in presenting a community that cares about the outdoors and seeks to protect threatened species and habitat. This is demonstrated by an expansive outdoor experience so close to an urban area that is protected from the impacts of urbanization. Any highway within the NCA dashes this experience and will have long-term impacts on tourism and recreation business, and on the branding of our area in general. 6. The assumption also assumes private inholding adjacent to the highway in the NCA will not be developed. Once access is granted, how can this be insured? Developing these properties would have further major impact on the NCA."	5. It is speculative to assume Alternatives 2, 3, and 4 would have a significant, long-term impact on recreation industries and tourism, particularly because there is no way to analyze or quantify how the current prohibition of a road in the NCA supports the "branding" of the community compared to if a road were to exist. While the proposed roadways would cut through a portion of the Red Cliffs NCA, no destinations would be significantly altered. Residents and tourists are not likely to cease recreating due to these alternatives but may prefer to recreate further into the Red Cliffs NCA or at the several neighboring destinations. Overall opportunities and access to tourism and recreation activities, both within and outside the NCA and Washington County would not be altered in a meaningful way that would impact recreation industries. 6. Refer to response to A.11-2.

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H.65-274	<p>""Because this area of the NCA is undeveloped, no impacts to neighborhoods or community cohesion would occur, although existing housing developments where the highway would tie into other infrastructure would experience increases in traffic and noise compared to the No Action Alternative. No businesses are located within the proposed ROW for these alternatives. The NCA alternatives would serve as an alternative transportation route to mitigate increased traffic expected with the projected population growth (see Section 3.26.2.2 for more information on traffic and transportation).""</p> <p>Issue:</p> <p>7. Increase in traffic and noise would be significant for all alternatives inside the NCA, and insignificant for those outside.</p> <p>8. The traffic mitigation applies to all alternatives"</p>	<p>7. Traffic impacts for Alternatives 2-4 are described in Section 3.26.2.1 and Section 3.26.2.2 in the EIS. While there would be an increase in traffic because the Northern Corridor would be built where no road currently exists, the increase in traffic is not a significant impact. The noise report for the Northern Corridor project (Appendix K) acknowledges a noticeable change in noise levels near the Northern Corridor alignment where no roadway exists. A qualitative noise analysis was prepared and was determined to be appropriate based on the planning-level decisions to be made under this EIS (refer to Section 3.23.2.2 of the EIS). The noise impacts for the alternatives are described in detail in Section 3.23.2.2 and in Appendix K. Noise impacts have been adequately assessed to fully disclose anticipated noise impacts to the public, assist the BLM in its decision-making, and support the comparison and evaluation of impacts of the alternatives.</p> <p>8. Section 3.26.2.1 list of assumptions has been revised that the Northern Corridor action alternatives, Red Hills Parkway Expressway, and the One-way Couplet Alternative would improve traffic congestion in preparation of a growing population.</p>

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H.65-275	<p>""If the ITP is denied, individual take permits could be required to develop non-Federal land with Mojave desert tortoise habitat, particularly where take may be difficult to avoid. This may slow development and limit economic opportunity. Under the ITP/HCP action, which would establish the proposed Reserve Zone 6 and more restrictive land uses through the SGFO RMP Amendment, ranchers could be impacted if livestock grazing is restricted as detailed in Section 3.21, Livestock Grazing. With Red Cliffs NCA RMP Amendment Alternative C, future utilities could be accommodated within the highway ROW; an indirect effect of added infrastructure, should it occur, is that it may induce growth to an area that might otherwise not be developed. In contrast, the SGFO RMP Amendment would either establish ROW exclusion areas for proposed Zone 6 lands (SGFO RMP Amendment Alternative B) or ROW avoidance areas (SGFO RMP Amendment Alternative C). Most mineral activity in proposed Zone 6 would also be precluded, although the probability for mineral development would be low in this area even if unrestricted"" (DEIS at 3-168).</p> <p>Issue 9. This paragraph is difficult to process. It seems to imply that if alternatives 2, 3 or 4 are not approved, that there will be no ITP and no Zone 6. This is an unnecessary condition imposed by Washington County and should have no bearing on the alternative selected. It is within Washington County's discretion to create Zone 6 and a new ITP regardless of the alternative approved for the Northern Corridor. There are many options for the ITP, and certainly having none would be detrimental to development, and would be avoided by the county."</p>	<p>Refer to response to A.24-3. The applicant's rationale for including various elements in their proposals is outside the required scope of analysis for an EIS. As stated in the Amended HCP, Washington County proposed Zone 6 to offset the impacts from the potential take of Mojave desert tortoise from potential changed circumstances, including the proposed Northern Corridor if approved and constructed across Reserve Zone 3. The BLM and USFWS require appropriate avoidance, minimization, and mitigation of impacts on resources due to the proposed action, as appropriate, pursuant to each agency's policies and regulatory authorities (40 CFR 1508.20).</p>

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H.65-277	<p>""However, the one-way couplet may impact the quality, walkability, and social aspects of downtown St. George. One-way streets typically result in higher traffic volumes and lack the traffic calming effects of two-way streets, so drivers tend to go faster than the posted speed limit. One-way streets support more vehicular traffic and discourage pedestrian and bicycle traffic thus deterring walkability in the downtown area (Riggs and Gilderbloom 2015, Walker et al. 2000). One-way streets may lower perceived pedestrian safety and business attention as speeds increase and visibility of people and buildings decrease (Baco 2009, Riggs and Gilderbloom 2015, Walker et al. 2000). Property values may change, and storefront exposure could decrease, impacting business along St. George Boulevard and 100 South (Baco 2009, Riggs and Gilderbloom 2015). It is possible that with an increase in traffic volumes the visibility to businesses on either side of St. George Boulevard could create more economic activity and lead to increased economic opportunity, particularly if traffic calming measures are implemented to help maintain the posted speed limit"" (DEIS at 3-169). (emphasis added)</p> <p>Issue</p> <p>12. This general description of the couplet and its impacts, with the exception of the last sentence, and the selected references seem to present a biased perspective. Certainly, a one-way couplet could be designed to damage business and hinder walkability, but they can also be designed to improve business access and value, and walkability. There are many references to design that improve downtown businesses and pedestrian experiences (e.g., Town Center One-Way Couplets, Public Square). There are certainly many contradictory studies, and many design variables. This general description of the couplet and its impacts, with the exception of the last sentence, and the selected references seem to present a biased perspective."</p>	<p>The analysis for Alternative 6 is based on current City of St. George general plan and master land use and zoning plans, which are not oriented around a one-way couplet system. To design an effective one-way couplet system that minimizes impacts and/or increases benefits requires an overall, coordinated land use and transportation planning approach. The City of St. George general plan and land use changes that would be required to more effectively implement a one-way couplet system are beyond the scope of the EIS analysis and outside the jurisdictional authority of the BLM.</p>

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H.65-278	<p>""On 100 South, the one-way couplet will have more negative impacts to residents. Implementation of this alternative could lead to an increase in commercial property values along 100 South as traffic volumes increase, bringing more shoppers and visibility to the area. This, however, would likely decrease residential property values because traffic and noise take away from the livability of the area. It is also possible that commercial and residential property values could suffer if traffic speeds are not maintained, and create a dangerous environment for pedestrian shoppers. With faster moving traffic, less driver awareness of pedestrians, and potentially higher property taxes, residential properties on 100 South may convert to business uses. In addition, the neighborhood cohesion between residents that align 100 South would be negatively impacted by the alternative. The increase in traffic volumes and the additional through lane associated with the one-way couplet would deter residents from crossing 100 South without implementation of designated pedestrian crossings and traffic calming design features"" (DEIS at 3-170).""</p> <p>Issue</p> <p>13. The conclusion that the couplet ""will have more negative impacts to residents"" is not substantiated. Which residents? Certainly, the plan is for downtown St George to be a high-density residential and commercial mixture. As the city grows, single-family residences in the downtown core will convert to multi-family and commercial uses. The couplet will not be the reason for this, but rather the couplet would support it. Property values will change independently.</p> <p>14. The DEIS seems to assume the couplet would be designed for high-speed, but it could and should be designed for mid-speed (35 mph?), high thru-put and safety."</p>	<p>Refer to response to H.65-277. The negative impacts to residents are those living along 100 South as stated in Section 3.26.2.1 of the EIS. The one-way couplet analysis assumes a 35-mile-per-hour design speed for both St. George Boulevard and 100 South.</p>

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H.65-279	<p>""Dixie State University, located on 100 South, initiated a Student Pedestrian Emphasis Area with the assistance of the City of St. George in 2014. This Pedestrian Emphasis Area allows certain uses and densities to support the university's growing student population and strives to provide study housing, and encourage walking and biking to campus. The one-way street conversion may impact this area with increased traffic speeds and volumes, which can negatively impact the walkability of the area without traffic calming, and safety design features along J00 South for pedestrians and bicyclists. The BLM is coordinating with the City of St. George regarding potential inconsistencies between the roadway alternatives and the land use plans, policies, and controls adopted by the City of St. George. Findings are documented in Appendix H"" (DEIS at 3-170).</p> <p>Issue 15. Again, the emphasized text in the DEIS reflects a bias, stating issues that could arise if not correctly designed, rather than benefits if correctly designed."</p>	<p>Refer to responses to H.65-277 and A.30-2. One-way streets have had negative impacts to walkability and economic development according to several studies cited in this section. As noted in the section, traffic speed and perceived safety would depend on appropriate traffic calming and design speed measures.</p>
H.65-281	<p>""Traffic and transportation effects are only related to the Northern Corridor highway alternatives. It is assumed that there are no effects to traffic and transportation directly associated with Red Cliffs NCA RMP Alternatives B or C, SGFO NCA RMP Alternatives B or C, and the Amended HCP. Traffic analyses were performed based on standard FHWA traffic analysis methodologies using industry-accepted traffic analysis software programs. Results are presented by reporting the projected 2050 evening peak hour (highest hour volume) intersection level of service, which is a measurement of average intersection delay and travel time"" (DEIS at 3-170).</p> <p>Issue 17. Evening peak hour assumes no technological improvements in traffic flow and no human adaptation to traffic. Although these assumptions are understandable from a very simplified modeling perspective, neither of which are realistic assumptions."</p>	<p>Traffic analysis is based on the latest, and most current, industry standard for operations modeling and analysis. Assumptions on how travel and traffic may change as a result of future technological improvements or changes in human behavior are speculative in nature and therefore have not been used in this analysis. Future traffic modeling assumes optimized conditions based on current transportation-based technological capabilities.</p>

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H.65-284	BLM must analyze the socioeconomic impacts of multiple factors, including both market-based and non-market-based benefits, when developing management alternatives. This action is not only required, but will help ensure that the costs of other uses, like the Northern Highway Corridor do not permanently harm other important, non-market benefits of greater conservation areas.	<p>The BLM and USFWS’ analysis contained in the EIS considers both market and nonmarket values and conforms with both agencies’ regulations and policies.</p> <p>Additionally, the BLM and USFWS considered whether a cost-benefit analysis including both market and nonmarket benefits and costs is appropriate for each agency’s decisions to be made using the EIS.</p> <p>As described in 40 CFR § 1502.23, under NEPA, the weighing of the merits and drawbacks of the various alternatives in an EIS need not be displayed in a monetary cost-benefit analysis and should not be when there are important qualitative considerations.</p> <p>Furthermore, cost-benefit analyses are not required by either the BLM or USFWS’ NEPA requirements or other applicable laws, regulations, or agency policies.</p> <p>Because many important qualitative considerations are described in the EIS analysis, the BLM and USFWS determined that a cost-benefit analysis is not appropriate to support the analysis included in the EIS</p>
H.65-285	"The DEIS failed to determine the long-term economic value of protecting the Red Cliffs NCA against damaging infrastructure projects like the Northern Corridor Highway."	Refer to response to H.65-284.

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H.65-327	<p>2.1.1 Regional Travel Demand Model Overview "The following summarizes key aspects of the travel modeling conducted for the Northern Corridor project; further details are included in the Northern Corridor Traffic Analysis Memorandum (Horrocks Engineers 2020a). The transportation need is based on future travel demand forecasts for the county that were developed using the DMPO TDM. The TDM predicts future travel demand based on projections of land use, socioeconomic patterns, and transportation system characteristics." Issue:</p> <p>10. The projections were overly limited. For example, it did not anticipate any socioeconomic pattern involving working and shopping from home, typical human adaptability to traffic with staggered travel times and combining of trip purposes; nor did it include transportation system changes due to self-driving vehicles or smart traffic control. Changes in these areas over the next 40-50 years will have large impacts on traffic modeling. It also did not consider the option for Washington County to actually manage its growth to minimize transportation issues, assuming instead that the county will continue its current traffic-inducing sprawl growth. Rejection of the highway ROW could result in incentivizing the county to actually implement growth planning integrated with transportation planning. Any traffic engineer would advise that this is a necessity. The current travel demand merely extrapolated current conditions. This makes the congestion appear much worse than it likely will be.</p>	<p>The effect of possible changing work patterns or automobile technology on transportation system performance are speculative and therefore have not been used in this analysis.</p> <p>Also, refer to response to H.65-281.</p>
H.65-335	<p>Table 8. Property Impact Assessment Results Issue:</p> <p>19. As stated in Issue 14 above, we contend that the alternatives evaluated are defined in a manner that causes more impacts to business than necessary to adequately improve traffic. These impacts can be significantly reduced without sacrificing traffic relief.</p>	<p>Property impact assessments are conservative based on the nature of the alternative to ensure that there is full disclosure of foreseeable impacts. During final engineering design, every effort would be made to reduce and minimize property impacts to the greatest extent possible. All action alternatives have been developed to a comparable level of detail to evaluate the environmental consequences of each alternative.</p>

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H.65-336	<p>L. Traffic Analysis Memorandum "The purpose of this memo is to describe analysis performed with respect to the purpose and need and alternatives development of the Northern Corridor in support of the Northern Corridor Draft Environmental Impact Study (DEIS)." Issue:</p> <ol style="list-style-type: none"> <li>1. Technical papers describing methodologies used in engineering design and/or analysis, including modeling, typically include a description of assumptions. The memorandum includes a mention of some factors that are assumptions (e.g., project population growth), but does not mention many critical factors for which assumptions must have been made in order to create the analysis/modeling results. These assumptions should be listed in the DEIS to enable public review of the appropriateness and adequacy of the assumptions. Examples of apparent assumptions that may or should not be valid:               <ol style="list-style-type: none"> <li>1. No traffic management technology improvements over the next 30 years (e.g., traffic sensing and control).</li> <li>2. No driving technology improvements over the next 30 years (autodrive/ navigation systems enabling faster speeds and shorter spacing between vehicles).</li> <li>3. No changes in growth management policies over the next 30 years (e.g., implementation of Smart Growth principles).</li> </ol> </li> </ol>	Refer to responses to A.27-4 and H.65-281.

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13651-5	<p>In this single example the preferred alternative does not fare any better at identified intersections and actually scores lower at three key intersections on St. George Blvd. and only improves one intersection over the No Action alternative. The Couplet alternative provides traffic improvements to six intersections and maintains LOS at No Action alternative levels on all remaining intersections except one. The ONLY intersections the preferred alternative excels over the Couplet alternative are the intersections of Red Hills Parkway with 200 East and 1000 East, both of which would still be at very acceptable LOS of B or C. Working with two states with very aggressive Growth Management policies, Washington and Oregon, LOS D at PM peak is an acceptable LOS. The only two intersections on the Couplet alternative at lower LOS are Sunset/Bluff Street and Green Springs/Telegraph Street, neither of which the preferred alternative improves to LOS D or better. I believe even these intersections could be improved with aggressive signal timing and coordination. In addition, travel on the NCH would require out-of-direction travel for most motorists at the Sunset/Bluff Street intersection and possibly the Green Springs/Telegraph Street intersection. And while the model may predict that motorists would use the NCH driver experience says differently. The stated objective of the project is: reducing congestion, increasing capacity, and improving east-west mobility on arterial and interstate roadways between SR 18 and I-15 at milepost 13. The preferred alternative clearly does not meet the stated objective any better than the Couplet alternative.</p>	<p>Travel demand modeling is based on documented and field-measured driver experience to accurately reflect observed travel patterns, driver behavior, route choices, and optimized signal timing and coordination. LOS D is the standard being used for urban evening peak hour intersection acceptable operations in the analysis.</p> <p>Both the Preferred Alternative and the One-way Couplet Alternative meet the stated objective.</p>
H.65-460	<p>Transportation Modeling Deficiencies: Determine and correct deficiencies in the transportation modeling used by UDOT and the Dixie MPO to define the NCH's purported need, and develop and apply a "No Build" alternative for modeling in the DEIS to provide an objective comparison. Addressed in the DEIS: No.</p>	<p>Refer to response to H.65-281.</p> <p>The No Action Alternative is described in Section 2.21 of the EIS.</p>
H.65-575	<p>c. After passing through SITLA land, the NCH passes through private inholdings owned by Alan Carter and Robert Brennan. Please identify and discuss any plan, alternative or approach to resolving any and all ownership, fee title, and management issues regarding the private inholding of Brennan, Carter and any and all other private inholdings in the RCNCA. Addressed in DEIS: No</p>	<p>Section 4.1 of the POD describes the ROW process that would be used if a Northern Corridor alternative is selected in the ROD and UDOT moves forward with the design and construction of the roadway. Acquisition of private landholdings for the Northern Corridor would be obtained through the processes outlined in the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 as Amended, including 49 CFR Part 24 dated January 4, 2005.</p>

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H.65-576	d. The DEIS should disclose the appraised and/or assessed value of private inholdings inside the Red Cliffs Desert Reserve, specifically per-acre cost of Alan Carter, James Doyle, Robert Brennan and any and all other private inholdings. Addressed in DEIS: No	Refer to response to H.65-575. Property value and other more detailed economic impact analyses are outside the scope of this EIS. Property acquisitions are quantified by alternative and presented for comparison in Tables 3.26-3 through 3.26-7 in Section 3.26 of the EIS.
H.65-577	e. The DEIS should address pre-decisional bias associated with Washington County's recent \$1.35 million purchase of a 29.53-acre parcel inside the Red Cliffs Desert Reserve from private in-holder Robert Brennan. These parcels fall within the proposed NCH alignment. This purchase should not be allowed to influence the selection of alternatives. Addressed in DEIS: No	Land acquisitions in process by Washington County are included in Table 3.28-2 of Section 3.28 in the EIS.
H.65-578	f. The DEIS should disclose why Washington County purchased for 1 million dollars a 22.73-acre parcel inside the Red Cliffs Desert Reserve from Robert Brennan that is adjacent to the NCH alignment. What are the plans for this parcel? Addressed in DEIS: No	Refer to response to H.65-577. The intent of Washington County for lands recently purchased inside the Red Cliffs Desert Reserve are outside the scope and decision space of the EIS.
H.65-601	1- Verify the economic impact of potential future congestion with and without the NCH. Addressed in DEIS: No	Refer to response to H.65-284.
H.65-602	2- Socio-Economic Framework: BLM should use Appendix G, Socio Economic Framework for Public Land Management Planning: Indicators for the West's Economy in determining the baseline analysis of the region's economy. Addressed in DEIS: No	Refer to response to H.65-284.
H.65-603	3-Evaluating Alternatives: BLM should utilize a Total Economic Valuation Framework for evaluating alternatives. Addressed in DEIS: No	Refer to response to H.65-284.
H.65-604	5-Total Personal Income: BLM should use Total Personal Income as a basis for examining economic impacts. Addressed in DEIS: No	Refer to response to H.65-284.
H.65-605	6- Examination of Historic Trends: To provide socio-economic context, BLM should examine historic trends in county income and employment. Addressed in DEIS: No	Refer to Section 3.26.1.2 of the EIS, which describes the employment and income statistics for Washington County supporting the socioeconomic context.
H.65-606	7- Ecosystem Services and Nonmarket Values: BLM should complete quantitative analysis of nonmarket values to the extent possible, particularly to help the public understand the economic benefits that could be realized by visitation to the NCA. Addressed in DEIS: No	Refer to response to H.65-284.

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Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-608	9 -Real Estate: The DEIS must address NCH related impacts to real estate, especially in the communities of Green Springs and Middleton. Addressed in DEIS: No	Refer to responses to SOCIO-01 and H.65-284.
H.65-627	10- Nonmarket Values: The DEIS must address NCH related impacts to nonmarket values, including the following impacts, concerns and issues listed below in items 1 15: (121-122) Addressed in DEIS: No 1. Health and wellness, including physical, physiological, mental and cognitive 2. The value of world-class recreation including climbing, hiking, trail running, biking and equestrian recreation 3. The quality of life that attracts new residents and businesses to our area and supports the health of long-term residents 4. The value of scenic open space 5. The value of a highly-rated, aesthetically-pleasing viewsheds which are adjacent to one of the fastest growing metro areas in the nation 6. Real estate value 7. The passive value of the NCA appreciated by people who plan to visit in the future 8. The passive value of the NCA appreciated by people who value protection of threatened and endangered species and the larger system National Conservation Lands 9. The value of abundant wildlife and habitat 10. Ecosystem return services 11. The value of intact landscapes 12. The unpriced benefits to present and future generations related to protecting the NCA's purposes 13. The value of carbon sequestered by undisturbed vegetation 14. The value of being able to conduct scientific research and environmental education activities for adults and school children in such close proximity to a rapidly growing metropolitan area 15. According to Table 3-42 in the Red Cliffs NCA DRMP, Red Cliffs has high visitor use and provides many amenities for the public, including hiking, mountain biking, camping, equestrian activities, rock scrambling, and rock climbing, among others. BLM must identify and employ a tenable methodology for determining the non-market values of these activities, together with a tenable methodology for assessing the costs to the activities associated with the construction and siting of the NCH.	Refer to response to H.65-284.
H.86-15	3.26 Socioeconomics and Affected Environment Further, the BLM should analyze the total benefits and costs of inclusion of the proposed Zone 6. Amending the management prescriptions to Zone 6 for greater resource protection will impact social and economic outputs in the region.	Refer to Section 3.26.2.1 of the EIS, which describes economic and development impacts related to the HCP. Refer also to response to H.65-284.

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.86-16	3.26 Socioeconomics and Affected Environment BLM should include potential impacts to residents that having grazing privileges within Zone 6 or who have other rights to utilize lands within Zone 6.	Refer to Section 3.26.2.1 of the EIS, which states that proposed Reserve Zone 6 would establish more restrictive land uses, which could impact ranchers and livestock grazing.
H.86-17	3.26 Socioeconomics and Affected Environment The BLM and USFWS should also clarify that any denial or failure to renew the HCP could slow or postpone development in certain areas and will harm Washington County. Similarly, if the ITP is denied, individual take permits could be required to develop non-Federal land with Mojave Desert tortoise habitat, particularly where take may be difficult to avoid, which should be more fully analyzed because this will slow development and limit economic opportunity. Finally, the BLM should clarify that if the HCP/ITP is not approved, the County will likely not include Zone 6 in the renewed HCP. The economic impact of not approving the renewed HCP/ITP should be analyzed in this Section.	Denial of the HCP could slow or postpone development in certain areas, though the majority of development in the county would continue as listed in Section 3.26.2.1. Property valuations have not been prepared as part of the EIS (refer to response to SOCIO-1). Quantification of the economic impact of denial of the HCP is speculative and has therefore not been included as part of the planning-level decision to be evaluated in the EIS.

**0.3.30 Special Status Plants**

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.05-56	<p>Chapter 3.3.2, p 3-21                      EIS Text: Ground disturbance and associated construction activities may do the following:</p> <ul style="list-style-type: none"> <li>• Cause direct loss of plant populations, loss of modeled suitable habitat, or both.</li> <li>• Reduce population expansion into unoccupied modeled suitable habitat.</li> <li>• Fragment populations, resulting in reduced reproductive success.</li> <li>• Reduce pollinators, resulting in reduced reproductive success. Introduce or spread exotic and invasive weeds that may outcompete special status plants.</li> <li>• Increase dust deposition on existing plant populations; and expand use of Federal lands, which brings in human-related disturbances (e.g., trampling from recreation and increased fire risk).</li> </ul> <p>Comment: The Draft EIS should be revised to provide <u>supporting rationale for many of the impact pathways</u> suggested in this list,</p> <p>a) including whether or not these special status plants are expanding now such that the availability of additional suitable habitat is necessary or relevant to effects,</p> <p>b) how a narrow development corridor would fragment populations and result in reduce reproductive success where elsewhere the Draft EIS assumes that exotic plant species are expected to spread a kilometer away,</p> <p>c) and how land development would affect pollinator communities.</p> <p>Without additional support, these pathways appear speculative.</p>	<p>a) A footnote addressing the rate of expansion of special status plants into adjacent modeled suitable habitat was added.</p> <p>b) Information in the Final EIS has been clarified. For example, fragmentation is referring to the Analysis Area for the HCP, which may not be a narrow corridor and has the possibility of fragmenting large populations. It is not referring to the Northern Corridor, which would have no impact on occupied or suitable habitat (revised in the Final EIS). A footnote has been added to indicate that negative effects of habitat fragmentation to plants and pollinators have been well documented.</p> <p>c) Documentation indicates that fragmented plant populations appear to be less attractive to insect pollinators, which spend more time in larger, unfragmented plant habitats. Lower pollinator visitation rates are associated with reduced reproductive success in fragmented sites compared to intact sites. Furthermore, insect pollinator diversity increases in larger plant populations with larger habitat areas and decreases in isolated habitats with smaller plant populations.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.05-57	<p>Chapter 3.3.2.1, p 3-22                      EIS Text: Urban expansion and development will continue regardless if the HCP is amended.... For the sake of analysis, it is presumed that all lands that fall within the Analysis Area for the HCP could eventually be developed and therefore permanently impact special status plant habitat. Total impacts described under this action are understood to be the maximum potential impact (i.e., if all private land is developed) with regards to special status plant habitat and represent impacts in perpetuity.                      Comment:                      a) The Draft EIS should be revised to acknowledge that renewal of the ITP will result in certain protections for special status plants in the areas that might otherwise be subject to development. Some of these measures, like the proposed activities for Holmgren milk-vetch and dwarf bear-poppy are substantial and would not occur but for the approval of the Amended HCP and renewal of the ITP.                      b) This comment also applies to similar statements in Chapter 3.3.2.3 (i.e., "Development facilitated by the HCP ITP would continue to directly and adversely impact all special status plant populations, suitable habitat, and critical habitat located within the Analysis Area for the HCP (Tables 3.3-3, 3.3-4, and 3.3-5).")</p>	<p>a) Added conservation commitment text (from the HCP) to Section 3.3.2.1 urban expansion bullet to indicate that agency partners (i.e., SITLA, USFWS, UDNR, and the County) will commit to identify acreage of a yet to be determined area of Holmgren milk-vetch that will be established and protected in perpetuity with the goal of supporting a viable population within its Central Valley Critical Habitat unit C1.                      b) Deleted the word "all" from the sentence in Section 3.3.2.3 and added text to indicate development facilitated by the HCP ITP would continue to directly and adversely impact special status plant populations.                      c) Added text under Section 3.3.2.3 to indicate that amendment of the HCP and issuance of the ITP would result in the implementation of conservation measures that directly benefit special status plants, particularly the Holmgren milk-vetch. In accordance with the HCP, the agency partners would set aside a proposed conservation area in the Central Valley Critical Habitat unit 1c, large enough to support a viable population. Additionally, surveys for the Holmgren milk-vetch would be supported and conducted by agency partners in areas of suitable or occupied habitat, with the particular goal of identifying plants prior to development within the Analysis Area for the HCP. If a changed circumstance is triggered for the Northern Corridor and an alignment is approved through the Red Cliffs Desert Reserve, additional protections, including supporting surveys, seed collection, and developing a plant salvage plan, would be established for ESA-listed plant species located within the Analysis Area for the HCP.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-76	Some of these sensitive species are critically imperiled in Utah as noted above and could easily qualify for protection if petitioned under the Endangered Species Act. These species should also be analyzed in the impact analysis of the DEIS. Because this analysis is lacking, a supplemental DEIS needs to analyze the impacts of the proposed Alternatives to ALL of the BLM-Listed sensitive plant in Washington County within the HCP area.	Species that are designated as “critically imperiled” are not provided protections under the law, unless they are also listed under the Federal Endangered Species Act. The State of Utah has no additional protections for rare plants. All BLM-listed sensitive plant species that are known to occur on BLM-administered lands in the Analysis Area are incorporated into the Draft EIS. Plants that are only designated as Sensitive by the BLM (i.e., not Federally listed) have no regulatory protections outside of BLM’s jurisdiction. The HCP area does not include BLM-administered lands and therefore the analysis of BLM sensitive species does not extend to the entire Analysis Area for the HCP.
H.65-81	A critical habitat determination should be made before any "suitable" habitat is impacted. This plant [the dwarf bear-poppy], along with perhaps Astragalus holmgreniorum, is likely to become the first documented plant species to become extinct in Utah. And it relates to a never-ending cycle of growth and poor long-term planning by local governmental leaders and planners.	Comment noted. Determining critical habitat is a regulatory process that is beyond the scope of the proposed action.
H.65-289	<p>The HCP addresses a substantial amount of acreage that could be developed with both the action alternatives and No Action Alternative, as discussed in Section 3.3.</p> <p>a) Any additional ground disturbing activities within suitable and occupied habitat, combined with project-related ground disturbance such as new ROW, will have cumulative effects on the special status plants described in Section 3.3.</p> <p>b) Because potential development on private lands could occur under all alternatives, cumulative effects are relatively similar for each alternative.</p> <p>Issue</p> <p>6. The first highlighted statement above is untrue: it only holds true for alternatives 2-4.</p> <p>7. The second highlighted statement above is untrue: without the implementation of one of the alternatives 2-4, the private lands would have no access and would not be able to be developed</p>	<p>6. The No Action Alternative presumes continued development on private lands throughout the county, which could result in substantial impacts to suitable and occupied habitat. Additionally, subsequent to the publication of the Draft EIS, BLM and USFWS confirmed that there is no suitable habitat for the dwarf bear-poppy within the ROW or larger indirect impact buffer. Therefore, the Northern Corridor ROW alternatives within the Red Cliffs NCA would not contribute to cumulative effects on special status plants.</p> <p>7. Private lands include all lands within the Analysis Area for the HCP, which is spread throughout Washington County, not just lands within the Reserve. Therefore, it is presumed that access is available to private lands and development on private lands would be completely independent of implementation of the Northern Corridor project.</p>

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Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-463	1- Surveys for the federally endangered Dwarf bear-poppy ( <i>Arctomecon humilis</i> ), one of the rarest poppies in the world (endemic to Washington County, Utah) and among the first listed species under the Endangered Species Act, should be undertaken across the corridor proposal and a buffer, as well as in Zone 6. (81) Addressed in the DEIS: No.	Due to the presence of suitable soils for the dwarf bear-poppy, there is a small amount of <i>modeled</i> suitable habitat within the Analysis Area within and adjacent to the proposed ROWs. However, ground-truthing conducted by the BLM and USFWS confirmed that the area is not suitable habitat, nor is it occupied habitat. No known occurrences of the species have been reported by BLM biologists, who are frequently on the ground conducting surveys of the Reserve. Because the area is not considered suitable or occupied habitat, further surveys are not warranted. Surveys have been conducted for the dwarf bear poppy in proposed Zone 6. Information regarding the poppy populations within proposed Zone 6 are from the following referenced technical report: Utah Department of Natural Resources (UDNR). 2018. <i>Washington County Tonaquint Block Botanical Survey Report</i> . Prepared for Washington County, Utah.
H.65-464	3- Will herbicides be used during highway construction activities, and right-of-way maintenance? How will this impact rare plant populations into the future? (81). Addressed in the DEIS: Partially. Herbicides may be used but no evaluation of impact to rare plant populations are provided.	No special status plants are located within or adjacent to any of the Northern Corridor ROWs. As a result, there will be no impacts from herbicides to special status plants. Broadcast applications of herbicides will be prohibited within the project area; if necessary, spot treatments will be applied by hand using herbicides approved by the U.S. Environmental Protection Agency and BLM to treat noxious weeds. The highway project area will be monitored and controlled, as necessary, for weeds for the life of the ROW grant (which may include maintenance activities).
H.65-465	4- Will dust palliatives be used during construction? How will these impact the rare plants, seedbanks and pollinators? (81). Addressed in the DEIS: No.	A fugitive dust control plan in coordination with the Utah Department of Air Quality will be required during construction. The plan may include methods such as watering and chemical stabilization (as outlined in Appendix D of the EIS). It is unknown what type of chemical stabilization, if any, will be used. However, there are no special status plants located within or adjacent to any of the Northern Corridor ROWs. As a result, there will be no impacts from dust palliatives on special status plants, including their seedbank or pollination, during highway construction.

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-466	5- The DEIS should analyze how any corridor construction will directly or indirectly impact any ecologically intact core areas of sensitive species habitats that are conserved and protected from fragmentation in the NCA. Addressed in the DEIS: No.	No special status plants nor suitable habitat are located within or adjacent to any of the Northern Corridor ROWs. With regards to special status plants, the proposed Northern Corridor will not impact an “ecologically intact core area of sensitive species habitat.”
H.65-467	6- The DEIS should also identify BLM sensitive species that occur in any proposed mitigation lands and evaluate direct or indirect impacts associated with the proposed project. Addressed in the DEIS: Partially. The DEIS provides a list of BLM sensitive plant species, but no impact analysis is provided.	All lands that may experience project effects (beneficial or adverse) are analyzed in the EIS. All BLM-listed sensitive plant species that are known to occur on BLM-administered lands in the analysis area are incorporated into the Draft EIS. Plants that are only designated as Sensitive by the BLM (i.e., not Federally listed) have no regulatory protections outside of the BLM’s jurisdiction. The HCP area does not include BLM-administered lands and therefore the analysis of BLM sensitive species does not extend to the entire Analysis Area for the HCP.
H.65-468	7- Holmgren Milkvetch Protection: The DEIS should disclose the general locations of endangered Holmgren Milkvetch in Zone 6. What plans are there to fence-off or otherwise protect this endangered plant from rampant off-trail recreation, and the direct, indirect and cumulative impacts of the NCH and modification of the SGFO RMP on milkvetch? (143). Addressed in the DEIS: Partially. The DEIS provides the general locations of the plants in Zone 6. Alternative B proposes to fence-off the western boundary to help reduce ORV impact. Other impacts are not evaluated.	The EIS describes the general locations of Holmgren milkvetch (refer to Map 3.3.3 and Section 3.3.1.1). Specific locations are not provided to protect the integrity of the populations. The BLM will develop and implement a Travel Management Plan that will balance recreation values and resource protection, and will close certain trails. Refer to the Washington County HCP for conservation commitments designed to protect Holmgren milkvetch populations and habitat. Conservation measures include supporting survey efforts, fencing off special status plant habitat, and a commitment by agency partners (i.e., SITLA, USFWS, UDNR, and the County) to identify acreage of a yet to be determined area of Holmgren milk-vetch that will be established and protected in perpetuity with the goal of supporting a viable population within its Central Valley Critical Habitat unit 1c.
H.65-470	The DEIS should analyze how any NCH construction will impact any ecologically intact core areas of sensitive species habitats that are conserved and protected from fragmentation in the NCA. How would this NCH affect the current level of protection for these species and their habitats, as well as the prospects for their future recovery? (96). Addressed in the DEIS: No.	Refer to response to H.65-466.

**0.3.31 Special Status Wildlife**

Letter #- Comment # or Public Concern Statement #	Comment	Response
Form 1-4	While tortoise habitat contained in the state's "Zone 6" outside the conservation area is certainly worthy of protection, that's a separate matter. And in no way should it be used as a bargaining chip to justify an immensely destructive highway through the heart of the reserve.	Congress, through OPLMA, provided for certain developments within the NCA. UDOT submitted a ROW application to BLM consistent with the provisions of OPLMA. BLM must follow applicable procedures, including full disclosure and public participation, to consider this ROW application.
Form 1-2	Desert tortoise populations in the area and across the species' range are in decline and at risk of extinction, so we must do everything we can to protect their remaining habitat. It should go without saying that paving a highway across some of the species' most valuable and well-protected habitat is unacceptable and shouldn't even be considered.	Congress, through OPLMA, provided for certain developments within the NCA. UDOT submitted a ROW application to BLM consistent with the provisions of OPLMA. BLM must follow applicable procedures, including full disclosure and public participation, to consider this ROW application.
A.05-1	<p>Furthermore, with respect to fragmentation of habitat within the Reserve, the Draft EIS does not appropriately consider that the fragments created by the Southern Alternative would be substantially more degraded by this highway alternative than the fragments created by the UDOT or T-Bone Mesa Alternatives.</p> <p>While smaller, the Southern Alternative fragments would also be exposed most intensely to the overlapping edge effects from the existing development at the edge of the Reserve and the longer route (i.e., longer edge) of the Southern Alternative.</p> <p>The County also notes that the habitat fragments associated with the UDOT and T-Bone Mesa Alternatives are each larger than the size of Reserve Zone 5, which continues to support a population of MDT despite its relative isolation from other MDT habitats.</p> <p>The habitat fragments created by the Southern Alternative are much smaller, individually and collectively, than the size of Reserve Zone 5 (see Appendix J of the Draft EIS).</p>	<p>Each of the alignments located farther south would create increasingly smaller habitat fragments than the T-Bone Mesa Alignment. The size of habitat fragments and edge effects associated with fragmentation are among many factors used to determine the effects to desert tortoises and their habitat from roads and other human development. However, a critical factor in evaluating the effects of linear facilities to desert tortoises and their habitat is the need to maintain larger contiguous blocks of habitat for dispersal, connectivity, and genetic transfer (USFWS 1994). An assessment of larger contiguous blocks of habitat associated with the ROW alternatives has been part of that evaluation. Table 3.5-11 identifies blocks of habitat fragmented to the south by each Northern Corridor alternative resulting in larger habitat blocks north of the ROW; fragments to the south are smaller with greater edge effect.</p> <p>A discussion of edge effects is now added to the Affected Environment in Section 3.5.1.1. and in the Environmental Consequences in Section 3.5.2.1.</p>

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Letter #- Comment # or Public Concern Statement #	Comment	Response
A.05-11	<p>The Draft EIS appears to exclude certain field data pertaining to the distribution and abundance of MDT in Zone 3 (i.e., the MDT field data collected specifically for the Northern Corridor route alternatives at the direction of the USFWS). The Draft EIS also fails to give full consideration to the MDT density and distribution data collected in the proposed Zone 6 and the abundant citizen science data from adjacent ACEC and other BLM-administered lands. No pertinent information should be excluded regarding the MDT populations in Zones 3 and 6.</p>	<p>The distribution data collected in Zone 3 have been used to determine potential locations for desert tortoise passages under the proposed Northern Corridor. That information has been incorporated into the Northern Corridor biological assessment for underpass locations and in the Final EIS.</p> <p>Within previously surveyed areas, proposed Reserve Zone 6 currently supports a density of tortoises at 22.5 animals per square kilometer in its current condition. The EIS accounted for density and distribution data in proposed Zone 6 collected through USFWS-approved methodologies. While community science data in proposed Zone 6 and adjacent areas provide important information on the species distribution, because the data were not collected using comparable methods the information cannot be considered in developing density estimates. For areas where surveys have not been conducted, it was determined that no density estimates would be applied.</p> <p>Extrapolating from the survey data, incorporating community science data, and considering that 2,345 acres of the unsurveyed habitat in proposed Zone 6 is in an ACEC that is protected for other conservation values, unsurveyed portions of proposed Zone 6 are expected to be similar in density to the surveyed areas. In addition, 3,821 acres of the ACEC extends outside proposed Reserve Zone 6. Future surveys may be done to refine the abundance estimate for proposed Zone 6.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.05-12	<p>The Draft EIS also appears to rely on a draft Biological Report prepared by the USFWS providing a recovery-region specific assessment of the status of the MDT. The draft Biological Report appears to apply species-level conservation planning tools to MDT subpopulations within the Upper Virgin River Recovery Unit (i.e., "Analytical Units" ), where at least some of the boundaries between units appears to be arbitrary. These arbitrary boundaries create artificially small Analytical Units that score artificially poorly on metrics associated with conservation value and recovery potential. Other weighting criteria also appear to be arbitrary, such as the triple weight assigned to administrative boundaries for designated critical habitat, where the underlying habitat values have been addressed separately in other criteria. The net effect of this status assessment is that it overstates the conservation value of units within the Reserve and undervalues the conservation value of the Green Valley unit (which contains the proposed Zone 6) and the adjacent Far West unit that contains provides connectivity to the rest of the MDT range.</p>	<p>The currently cited biological report is based on a 2019 workshop of local desert tortoise experts that included the USFWS, BLM, Utah Division of Wildlife Resources, Washington County, and other experts. The workshop was intended to develop a framework to evaluate viability within the UVRU among naturally connected and unnaturally fragmented sub-populations and within known occupied desert tortoise habitat. The USFWS considers this report to contain a summarization of best available science and information that applies a methodology to evaluate viability of sub-populations, their connectivity, and their potential condition based on a demographic construct referred to as analytical units. These were sized based on topographical, anthropogenic, and ecological information with the biological experts. Although USFWS expects to further refine the analysis and conclusions of the report (including the conservation value that different analytical units contribute to the UVRU) and will seek further review from the workgroup and outside reviewers, the report in its current form contains generally accepted and agreed-upon information about relative distribution of desert tortoise and condition of habitat throughout the UVRU and can be cited for that information. Specifically, to address comments from reviewers, the revised report removes critical habitat (and associated triple-weighting of critical habitat) from criteria used to compare the relative values of different areas in the UVRU and clarifies there are no physical barriers between some of the analysis units.</p>

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Letter #- Comment # or Public Concern Statement #	Comment	Response
A.05-13	Reference to an unvetted and publicly unavailable Resource Equivalency Analysis (REA) should be removed from the Draft EIS. Future application of an unpublished REA to the analysis of effects in the Draft EIS or other decision documents could substantially change the basis for understanding such effects and would not be permissible in the Final EIS without additional public notice and opportunity for comment. The use of this unseen and unproven tool is not necessary for applying the best available information to the analysis of effects.	The USFWS considered using a Resource Equivalency Analysis (REA) to evaluate relative habitat conditions as part of the assessment of effects to desert tortoises and the HCP conservation strategy from the proposed Northern Corridor. It was determined the REA was not well suited for this analysis because underlying assumptions relied on some level of subjectivity and created an unreasonable level of uncertainty that could not be reconciled in the time allowed. Reference to the REA has been deleted in the Final EIS in “Other Potential Analysis Tools” in Section 3.5.2.1.

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.05-51	<p>Chapter 3.1.2, p 3-5</p> <p>EIS Text: As part of this analysis, the USFWS is considering using a modeling approach or other tools to evaluate whether various measures- such as habitat restoration, enhancing or providing for additional passage of Mojave desert tortoise through the Northern Corridor or other existing roadways, and/or other actions that would provide additional conservation or reduce impacts on Mojave desert tortoise- should be included to minimize and mitigate impacts to the Mojave desert tortoise.</p> <p>Comment: The Draft EIS does not provide any information about other modeling approaches or tools that the USFWS may be considering. Nor does the Draft EIS explain why the USFWS did not already apply those other approaches or tools to the analysis released for public review and comment. The USFWS has already published guidance for tools to assist with this task, such as the USFWS 2018 Desert Tortoise Section 7 Conservation Guidelines and the Desert Tortoise Recovery Office's Spatial Decision Support System (SDSS). The actions considered in the Draft EIS (particularly with respect to the proposed Northern Corridor) are not novel, and the USFWS has been able to evaluate the impacts of other similar linear development activities on the MDT with its currently available suite of models and tools (see, for example, the USFWS's review of the Southern Parkway in 2014). In fact, the USFWS has in the Draft EIS already provided an evaluation of the actions under consideration and their impacts on the MDT. The use of different models or tools in the Final EIS, particularly if they are new or have not previously applied to similar circumstances, would seem to be contrary to the purpose of NEPA review to provide transparent analysis of environmental effects. The Draft EIS should be revised to strike this statement and the USFWS should use the tools already at its disposal and that it has previously relied upon to evaluate the impacts of the actions on MDT.</p>	Refer to responses to A.05-12 and A.05-13.

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.05-53	<p>Chapter 3.2.1, p 3-6</p> <p>EIS Text: The analysis area defined for this section herein is referred to as the Mojave Desert Tortoise Analysis Area and includes all potential and suitable Mojave desert tortoise habitat modeled inside the HCP Permit Area (up to 4,000-foot elevation) with an additional 1,000 feet of elevation included to capture future habitat expansion, meaning the area includes current and future Mojave desert tortoise habitat up to 5,000-foot elevation.</p> <p>Comment: The definition of the Mojave Desert Tortoise Analysis Area suggests that elevations up to 5,000 feet should be included due to the potential for "future habitat expansion." However, the Draft EIS does not provide a basis for assuming that MDT habitat is reasonably certain to expand to this elevation in the future, let alone the foreseeable future. The Draft EIS should be revised to limit the Mojave Desert Tortoise Analysis Area to elevations at or below 4,000 feet, or the USFWS should provide supporting evidence that habitat expansion is reasonably certain to occur in the foreseeable future.</p>	<p>The information in the Final EIS was revised to clarify the rationale for habitat expansion up to 5,000 feet in the foreseeable future. Climate change may potentially affect future distribution and habitat use by Mojave desert tortoises. Although desert wildlife and plant communities are generally adapted to extreme conditions, the shift in climate may push some species closer to their physiological threshold (Bachelet et al. 2015). In addition, the analysis area should have stated the elevation extends up to 4,500 feet to be consistent with the rest of the EIS. This typo has been corrected.</p>

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Letter #- Comment # or Public Concern Statement #	Comment	Response
A.05-60	<p>General Comment regarding Habitat Fragmentation by ROW Alternatives EIS Text: NA</p> <p>Comment: The Draft EIS assumes that the negative impacts of "habitat fragmentation" increase with magnitude as the size of the Reserve patch south of the ROW alternatives increases. However, the relationship between patch size and negative impacts is not that simple. Habitat fragmentation is, in essence, a concept that captures interrelated impacts from edge effects, minimum patch size, and connectivity. Therefore, habitat fragmentation effects must be described in terms of all three metrics, the impacts of which are resource-specific. For instance, habitat fragmentation can create small, isolated, habitat patches that because of the small size and isolation are no longer usable as habitat for a particular species. This adverse impact lessens as the fragment patch size increases and the degree of connectivity across the barrier increases-both of which are relevant to the activities under evaluation. Edge effects are further influenced by the shape of the patch and the amount of edge it creates. Therefore, larger habitat fragments may actually be more beneficial to the resources under review than smaller fragments. The Draft EIS should more carefully evaluate the habitat fragmentation impacts and the relative magnitude of negative impact of each ROW alternative. The presumption that larger fragments are more negatively impactful may not be supported.</p>	Refer to response to A.05-1.

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Letter #- Comment # or Public Concern Statement #	Comment	Response
A.05-63	<p>General Comment - Data Quality Concerns for USFWS 2019b as a Source Reference</p> <p>EIS Text: U.S. Fish and Wildlife Service (USFWS). 2019b. Mojave Desert Tortoise in the Upper Virgin River Recovery Unit, Current and Future Conditions. Workshop. St. George, Utah. September 17 and 18, 2019.</p> <p>Comment: The Draft EIS relies on USFWS (2019b) as a source citation for many statements regarding the possible impacts of habitat loss and fragmentation on the MDT. However, this reference source appears to be the notes from a workshop convened by the USFWS in 2019. We are concerned that this source only reports the opinions of invited workshop attendees and does not report or document the findings of objective science or field studies. For instance, this source document is referenced in support of a management target of 3,000 MDT individuals to achieve a "minimum effective population size to prevent genetic deterioration." No information is provided to evaluate if this is in fact a reasonable population target, whether this target is to be applied to the species as a whole or to some subset of the population, or the conditions under which connectivity or translocation affects this target. The Draft EIS should provide more objective support for the statements currently cited to USFWS 2019b.</p>	Refer to response to A.05-12.

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A.05-64	<p>General Comment - Data Quality Concerns for USFWS 2020a as a Source Reference</p> <p>EIS Text: U.S. Fish and Wildlife Service (USFWS). 2020a. Draft Biological Report: Biological Report for the Upper Virgin River Recovery Unit Population of Mojave Desert Tortoise (<i>Gopherus agassizi</i>). Prepared by the Utah Ecological Services Field Office, U.S. Fish and Wildlife Service. Salt Lake City, Utah. Version 1, Draft Report, April 2020.</p> <p>Comment: Similar to the prior comment, the source cited as USFWS 2020a is a draft report that attempts to apply species-level analysis tools and frameworks (i.e., using the approach of a Species Status Assessment) to the small Upper Virgin River Recovery Unit and even smaller individual "Analytical Units" within the recovery unit. The draft findings of this variation on a species status assessment are unvetted through peer review and have not been subject to independent public review and comment that is typically a part of USFWS recovery planning efforts. It is not appropriate for the USFWS to rely on its draft and unvetted findings in this NEPA review. For example, page 3- 35 includes the following statement: "According to the USFWS, new habitat fragmentation impacts from ongoing development would pose significant risks to the recovery unit population and further hasten rapid environmental change (USFWS 2020a)." Review of USFWS 2020a finds that this conclusion is the outcome of several highly subjective value judgements (e.g., artificially created analytical unit boundaries, subjective and duplicative weighting criteria, etc.), some of which arise from USFWS 2019b, that do not reflect objective science. Nonetheless, the Draft EIS relies on these statements to evaluate the impacts of the proposed actions. Other similarly subjective or speculative statements are cited to USFWS 2020a regarding potential recreation impacts and others. The Draft EIS should provide more objective support for the statements currently cited to USFWS 2020a. Federal agencies are directed to comply with Data Quality Act, applicable guidance issued by the CEQ in April of 2019, and other policies or guidance specific to the Department of the Interior, USFWS, and BLM ensuring the quality, utility, objectivity, and integrity of information that is disseminated as relevant to federal agency decisions</p>	Refer to response to A.05-12.

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A.05-65	<p>Chapter 3.5.1.1, p 3-35</p> <p>EIS Text: How much of an impact a roadway has on an individual tortoise or population is a function of the size and frequency of use of the road.</p> <p>Comment: The Draft EIS should acknowledge that the presence or absence of exclusion fencing along the road also significantly influences the degree of impact on MDT. The description of the studies that follows this statement also does not acknowledge that the findings apply to roadways without fencing. In general, the Draft EIS should also include information about the beneficial impacts of exclusion fencing along roadways and the ability of this conservation measure to significantly reduce mortality.</p>	<p>The roadways threats discussion in Section 3.5.1.1 in the EIS has been revised to provide additional information on how exclusion fencing along a road reduces the impact of the road on Mojave desert tortoise.</p>
A.05-66	<p>Chapter 3.5.1.1, p 3-42</p> <p>EIS Text: Since 1976 there have been 207 fires within the Analysis Area for the HCP covering 266,196 acres, with 56,672 acres double burned; there were no fires within proposed Zone 6.</p> <p>Comment: This statement in the Draft EIS is not entirely accurate. Some of these Zone 6 lands have burned in the past, but the acreage has been minimal (approximately 20 - 80 acres).</p>	<p>The text within the EIS was modified to indicate that minimal acres have burned in proposed Zone 6.</p>

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A.05-67	<p>Chapter 3.5.1.1, p 3-43</p> <p>EIS Text: Under drought conditions, nonnative grasses would proliferate, which would also increase fuel loads, thereby making habitat more susceptible to wildfires, and could cause direct mortality and loss of habitat for Mojave desert tortoise (Berry and Murphy 2019, Drake et al. 2016).</p> <p>Comment: This statement in the Draft EIS seems to not take into consideration that non-native grasses proliferate under wet conditions more than they do during drought conditions. In drought, the climate-adaptive native plants should have a competitive edge over the non-native species. The Draft EIS should be revised to more carefully consider this relationship.</p>	<p>This is not necessarily the case. Although some native shrubs may be more drought tolerant, nonnative annuals have shown to be equally drought tolerant. Red brome and cheatgrass can easily outcompete native grasses and forbs, because these grasses require about half as much water as most native plants to germinate (NRCS 2013). Additional references not included in the EIS text include the following: “Cheatgrass is well adapted to endure extreme drought, under which conditions plants produce little herbage but produce enough seed to establish another generation” (<a href="http://www.fs.fed.us/database/feis/plants/graminoid/brotec/all.html">www.fs.fed.us/database/feis/plants/graminoid/brotec/all.html</a>). Precipitation concentrated in the early spring will favor annual grasses because these can start growing before perennials, while late spring precipitation will favor perennial species (Klemmedson and Smith 1964). Even in systems without fire, grazing, or other stressors, drought alone can facilitate the spread of invasive annual grasses (Kindschy 1994, Tausch et al. 1994). (<a href="http://www.fs.usda.gov/ccrc/sites/default/files/documents/files/DroughtWebinarSummary_Invasives.pdf">www.fs.usda.gov/ccrc/sites/default/files/documents/files/DroughtWebinarSummary_Invasives.pdf</a>).</p>

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A.05-68	<p>Chapter 3.5.1.1, p 3-44</p> <p>EIS Text: A total of 277 tortoises have been entered into the adoption program (pers. com. Rognan 2020), while 485 tortoises (including 317 adults) have been longdistance translocated into Zone 4 between 1999 and 2018 (UDWR 2019c). The current estimated abundance of Mojave desert tortoise in Zone 4 is approximately 285 (160 to 507) individuals (USFWS 2020a). Analysis of 15 years of data (2003 through 2017) indicate that annual adult Mojave desert tortoise survival in Zone 4 was estimated at 90 percent (UDWR 2019c), which is low for a long-lived species such as Mojave desert tortoise (pers. com. Kellam 2019).</p> <p>Comment: The statement about 90% survival in Zone 4 after fifteen years being "low" is misleading. It appears, based on the calculations, that the analysis in the Draft EIS is confusing "annual survivorship" with overall survivorship over 15 years (i.e., 317 adults translocated over 15 years at 90% survival = 285 adults). If 10% of the adults died every year the population of Zone 4 would be less than 100 by now. Translocation success in Zone 4 has been extremely successful as reported in UDWR 2019c. The Draft EIS should cite to other studies and findings, rather than personal communications, to support the statement that translocation success is "low." Additionally, the County has information demonstrating that some tortoises have dispersed off-site from Zone 4 and should not be presumed dead. Furthermore, other considerations that play into translocation success include fecundity, recruitment, and juvenile survivorship. The overall point is that Zone 4 is thriving to the point that the Desert Tortoise Recovery Office recently recommended considering new locations for translocations. This statement in the Draft EIS is not consistent with that recommendation or the findings and conclusions of DWR (2019c) and should be stricken.</p>	<p>The analysis in UDWR 2019c states that over all monitoring years, annual survival was estimated at <math>0.90 \pm 0.01</math> (Confidence Interval: 0.87-0.92) for adult tortoises and <math>0.64 \pm 0.11</math> for juveniles (Confidence Interval: 0.41-0.82).</p> <p>The subjective statement "which is low for a long-lived species such as Mojave desert tortoise" was struck from the text.</p>

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A.05-69	<p>Chapter 3.5.1.1, p 3-45</p> <p>EIS Text: The UVRU was divided into 11 geographic analytical units (Map 3.5-3) based on known Mojave desert tortoise occurrences and likely barriers to movement (topographical or human-caused) (USFWS 2019b). To maintain viability, connectivity among analytical units is to provide for repopulation of adjacent analytical units without human assistance following stochastic population declines (USFWS 2019b). Each analytical unit has a management target of 3,000 individuals, and was ranked (e.g., good, moderate, poor, or critical) for its resiliency, redundancy, and representation based on a series of factors that include habitat condition, demographic needs, and connectivity/fragmentation (USFWS 2020a).</p> <p>Comment: The analytical units contemplated in USFWS 2019b and used in USFWS 2020a are not well supported. If the purpose of the analytical units is to evaluate whether or not a population of 3000 individuals can reside therein as a minimum viable population, then any connectivity between adjacent units should support combining those adjacent units as the individuals are part of the same population. The agencies should reconsider if and how this status assessment based on analytical units should be relied on in the Draft EIS. Furthermore, conclusions from USFWS 2020a that assert "poor connectivity" between MDT that reside in the Green Valley area (associated with Zone 6) with other habitat areas appears to be significantly discount the fact that this area is essentially fully connected to 10s of thousands of acres of suitable habitat to the west (even to other recovery units), with very few barriers to dispersal. It is misleading at best to assert that this area has poor connectivity to other areas where MDT occur. The methods and assumptions used to generate USFWS 2020a should be carefully reviewed and reconsidered before basing the analysis in the Draft EIS and other decision documents on its findings.</p>	Refer to response to A.05-12.

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A.05-70	<p>Chapter 3.5.1.1, p 3-48</p> <p>EIS Text: However, conducted using the USFWS pre-project survey protocol (USFWS 2017) that is only intended to locate individual tortoises and not to derive density estimates. Therefore, this density estimate is not comparable with other Mojave desert tortoise populations. Additional years of survey data will be needed to validate Mojave desert tortoise density in proposed Zone 6.</p> <p>Comment: This statement in the Draft EIS is incorrect and should be removed. The County worked closely with USFWS (Linda Allison) and UDWR (Ann Mcluckie) to use methods for this study with the specific objective of deriving density estimates. The USFWS Desert Tortoise Field Manual protocols used for the study are designed for density and abundance calculations. Furthermore, current USFWS recommendations in the desert tortoise field manual suggest that density estimates derived from these methods are reliable if 20 or more tortoises are detected in the survey area. This study detected 76 individuals. Therefore, the USFWS should consider the density estimates for Zone 6 to be reliable and further supported by the Citizen Science efforts that should also be mentioned in this analysis. While Citizen Science data cannot produce precise density estimates, it clearly demonstrates occupancy, distribution and relative abundance to other areas nearby. The Citizen Science data is especially important to include because it is the ONLY data available for the ACEC lands where the BLM does not authorize any formal tortoise surveys. The County requests that the agencies use ALL of the best available information to ascertain tortoise density and occupancy in the Zone 6 area and include the total number of tortoises expected there, which would be over 600. That number is important to report and include side-by side to the number of tortoises estimated to be directly impacted by the Northern Corridor alternatives. The County offers to provide updated information from the latest Citizen Science Data effort to USFWS and BLM, which includes more than 100 observations from this spring.</p>	Refer to response to A.05-11.

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A.05-72	<p>Chapter 3.5.2.1, p 3-55</p> <p>EIS Text: The issue of indirect effects because of habitat fragmentation was quantified using the number of acres of Mojave desert tortoise habitat located between each ROW alternative and the southern Reserve boundary, for which connectivity to the larger tortoise population may be impaired.</p> <p>Comment: As described in a prior comment, the simple measure of acres of the habitat patch south of the ROW alternatives does not provide a full picture of the type or magnitude of indirect impacts. We also note that Reserve Zone 5 is smaller than each of the fragments that would be created by the UDOT and T-Bone Mesa Alternatives, but none the less is important to the conservation of the species. Also, as suggested in a prior comment, the evaluation of benefits from Zone 6 must also include consideration of indirect impacts that result in a conservation benefit to adjacent lands. The Draft EIS should be revised to better address these important considerations.</p>	<p>Refer to response to A.05-1 for discussion on fragmentation.</p> <p>To address the indirect benefits of proposed Zone 6, text to describe the conservation benefits of proposed Zone 6 to desert tortoises on adjacent lands has been added in the Final EIS in the SGFO RMP Amendment discussion in Section 3.5.2.1.</p>

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A.05-73	<p>General Comment - All available data on MDT EIS Text: NA</p> <p>Comment: The Draft EIS should use all available data on the distribution, density, and abundance of MDT that is available. The Draft EIS does not currently rely on or discounts the reliability of data collected specifically for the evaluation of alternative Northern Corridor routes (studies specifically requested by the USFWS, with substantial cost to UDOT and the County), as well as data pertaining to Zone 6 and adjacent SLM-administered lands. As an example, there is clearly defined clustering of tortoise populations along the UDOT ROW and other 2 alternatives in the Reserve. Failure to use the site-specific field data results in treating all the habitat the same and assumes that the UDWR tortoise density of 17.2 / km<sup>2</sup> is uniformly spread out across the analysis area. These false assumptions could be corrected by using both UDWR data and the newer, project-specific surveys. Tortoise densities are higher in the clustered areas like the Middleton Wash, Chisle Wash and more southerly locations near Pioneer Park. UDWR data, County observations and private inholding surveys, as well as Jacobs burrow surveys all confirm similar population clustering of tortoise populations that would be extremely useful in evaluating the impacts of the alternatives.</p>	<p>USFWS recently developed an estimate for tortoise abundance within Zone 3 of the Reserve based on UDWR long-term monitoring data that showed that desert tortoises are not evenly distributed on the landscape. The UDWR Reserve monitoring dataset was filtered to include only survey transect observations between 2007 and 2017, excluding data that preceded the last major wildfires in Zone 3. Using the Kernel Density Tool in ArcPro Geographic Information System, mapping was generated that provides a more detailed assessment of the variability of tortoise abundance across the landscape within Reserve Zone 3. Analysis of tortoise densities are reflective of this clustering of tortoise populations that occurs throughout Zone 3, with higher tortoise densities in or near Middleton Wash and other areas along each alignment. The Final EIS has been updated in Section 3.5.2.1 to incorporate this information. 2018 survey data only evaluated the UDOT Application Alignment ROW, and if used in density calculations would overestimate the number of tortoises on this alignment compared to data that covers all alignments in Zone 3. However, the 2018 and 2020 data were used in connectivity discussions and crossing structure recommendations, which considered all tortoise observations from all data sources. Refer also to response to A.05-11.</p>
A.05-74	<p>Chapter 3.5.2.1, p 3-56 EIS Text: The following assumptions apply to this analysis:...</p> <ul style="list-style-type: none"> <li>• The HCP analysis area for indirect effects includes all Mojave desert tortoise suitable habitats within a 1-kilometer radius buffer of the HCP Covered Activities Area....</li> <li>• The analysis area for indirect effects from the Northern Corridor alternatives in the Reserve that require construction of a new roadway</li> </ul>	<p><b>1. HCP Analysis Area Buffer:</b> The assumption regarding use of a 1-kilometer buffer for indirect effects associated with the HCP Covered Activities was initially taken from the HCP based on the analysis for occupied and potential habitat. It was later decided to use a 508-meter buffer for the HCP analysis area based on the annual home range size of 200 acres for an adult male Mojave</p>

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	<p>includes suitable Mojave desert tortoise habitat within 508 meters on either side of the ROW...</p> <ul style="list-style-type: none"> <li>The analysis area for indirect effects from the Northern Corridor alternatives that do not require construction of a new roadway includes suitable Mojave desert tortoise habitats within 300 feet on either side of the ROW within the Reserve....</li> </ul> <p>Comment:</p> <ol style="list-style-type: none"> <li>The Draft EIS should provide an explanation of why different distances are used to establish the zone of indirect effects for different types of development activities. While there is some description of the relevancy of the different distances to the biology of the MDT (except for the 300 ft distance used for the non-Reserve Northern Corridor routes), <u>the discussion lacks a rationale for why the different distances are appropriate.</u></li> <li>These same assumptions and supporting rationale should also apply to analysis of Zone 6 in consideration of the beneficial impacts of retiring the take authorization on 3,300 acres of non-federal lands for the alternatives which allow construction of the Northern Corridor through the NCA.</li> <li>Additionally, the same unit of measurement should be used throughout the assumptions list, e.g. rather than 508 meters and 300 feet, pick either meters or feet for both numbers.</li> </ol>	<p>desert tortoise. This buffer is the same distance as the buffer analyzed for indirect effects to the Mojave desert tortoise from the Northern Corridor within the NCA/Reserve. However, the 1-kilometer buffer distance was inadvertently not updated to 508 meters in the assumptions in the EIS. This typo has been corrected in the assumptions. As stated in the analysis methods and assumptions within Section 3.5.2.1 of the EIS, the analysis area for indirect effects from the Northern Corridor alternatives that do not require construction of a new roadway includes suitable Mojave desert tortoise habitats within 300 feet on either side of the ROW within the Reserve. The analysis area is smaller because ROW fencing on both sides of the highway exclude tortoises from entering the ROW, and tortoises occupying this area have likely been exposed to the wildland-urban interface, including the existing road.</p> <ol style="list-style-type: none"> <li>In Section 3.5.1.2, the discussion of the effects of the SGFO RMP Amendment with Alternative 2 has been revised to indicate that incidental take of Mojave desert tortoise associated with 3,338 acres of tortoise habitat on non-Federal lands within proposed Reserve Zone 6 would not be part of the County's ITP.</li> <li>All measurements were presented as metric units except the 300-foot buffer, which was provided in feet because that is a specific project boundary that is identified in English units throughout the EIS. For consistency with the rest of the EIS and to avoid confusion, the 300-foot buffer was not changed to 91.4 meters.</li> </ol>
A.05-75	<p>Chapter 3.5.2.1, p 3-57 EIS Text: All habitats within the Reserve below 4,500 feet in elevation are considered currently occupied Mojave desert tortoise habitat, and all</p>	<p>The following is an explanation. No changes were made to the EIS text, other than correcting typos in the EIS that indicated the upper elevation for the analysis area was 4,000 feet, which has now been corrected to 4,500 feet.</p>

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	<p>habitats between 4,500 feet and 5,000 feet are considered potential future occupied habitats.</p> <p>Comment: The Draft EIS appears to establish an alternate definition for what constitutes occupied vs potential habitat, based on elevation rather than actual detections. This assumption is in conflict with other mapping of occupied vs potential habitat used elsewhere in the Draft EIS and in the Amended HCP. The Draft EIS should be revised to provide greater consistency on how habitat suitability is approached in all of the analyses or it risks skewing the evaluation of the impacts.</p>	<p>For both the HCP and the EIS, the U.S. Geological Survey tortoise habitat suitability model was used to identify suitable tortoise habitat. The modeling shows potential suitable habitat and is not constrained by elevation. The HCP then differentiated between occupied and potential tortoise habitat by using verified tortoise observations superimposed on the U.S. Geological Survey habitat suitability model. However, for the analysis required in the EIS, there was no need to differentiate between occupied and potential habitat. Therefore, the EIS analyzes potentially occupied tortoise habitat, which is merely a combination of the occupied and potential habitats analyzed in the HCP.</p> <p>The Habitat Characteristics section of the HCP indicates that suitable habitat for the Mojave desert tortoise extends up to approximately 4,300 feet. However, the HCP also indicates that only 16 percent of tortoise observations within the UVRU were from locations above 4,000 feet, most of these in an introduced population near Springdale, so the HCP dismisses that population as an outlier. In the EIS, habitat was initially analyzed up to 4,000 feet, consistent with the HCP. Upon further evaluation, it was decided the EIS would not dismiss the existing tortoise population below 4,500 feet because it is possible tortoises are using potential habitat in this elevation range, but no surveys have been conducted in these areas to determine occupancy. Making this change led to inconsistencies in the EIS because some of the text that said 4,000 feet had not been updated to 4,500 feet. This has now been corrected.</p> <p>It is possible that tortoises may react to climate change by using habitat at higher elevations. Therefore, while habitat between 4,500 and 5,000 feet was not analyzed in the EIS as currently</p>

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		suitable habitat, it was analyzed in the context of habitat that may become occupied by tortoises in the future.
A.05-76	<p>Chapter 3.5.2.1, p 3-57</p> <p>EIS Text: Approximately one-third of the Proposed Zone 6 Analysis Area falls within the Red Bluff ACEC, which is managed to protect biological and natural resources by limiting recreation and OHV travel to designated roads and trails and by increasing stipulations on mineral materials leasing. Protection benefits already provided to Mojave desert tortoise on lands within the ACEC are not included within the beneficial impacts provided by designation of proposed Zone 6.</p> <p>Comment: The County reiterates a prior comment regarding the inappropriate consideration of the conservation benefits of Zone 6 actions on BLM administered ACEC lands. While MDT currently enjoy some protections from the ACEC designation, the proposed Zone 6 actions would provide significant additional conservation benefits that should be considered in this analysis. The Draft EIS should be revised to fully describe these benefits.</p>	The Final EIS describes the benefits of including the ACEC lands within proposed Zone 6.
A.05-77	<p>Chapter 3.5.2.1, p 3-57</p> <p>EIS Text: Another possible tool to aid in this analysis is a resource equivalency analysis. This model evaluates the biological values over time including both the losses from the project and the gains from proposed conservation measures. USFWS is considering these and other approaches to evaluate both the potential impacts to the Reserve, impacts to the tortoise and its habitat, and the conservation value of the proposed conservation measures.</p> <p>Comment: Reference to an unvetted and publicly unavailable Resource Equivalency Analysis (REA) should be removed from the Draft EIS. Future application of an unpublished REA to the analysis of effects in the Draft EIS or other decision documents, could substantially change the basis for understanding such effects and would not be permissible in the Final EIS without additional public notice and opportunity for comment. The use of this unseen and unproven tool is not necessary for applying the best available information to the analysis of effects.</p>	Refer to response to A.05-13.

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A.05-25	<p>Chapter 2.2.9.2, p 2-7  EIS Text: Passageways spacing and design would follow USFWS Passage Spacing Guidance (maximum spacing 508 meters [approximately 1,667 feet] apart) as interpreted with best practices and new science. Attachment 2 in Appendix D provides additional guidance on this measure.</p> <p>Comment: Attachment 2 in Appendix D does not specify a maximum spacing of 508 meters; rather this guidance document suggests that an appropriate distance is 670 meters. The "best practices and new science" referenced in this statement is not cited or explained to provide context for the difference in recommended spacing. Furthermore, it is not clear if the BLM will treat the recommendations in this guidance document as a strict requirement or as guidance. Chapter 3.5.2.1, p 3-62 also references a spacing distance of 254 meters, without providing rationale.</p> <p>The Draft EIS should be revised to provide a consistent recommendation on spacing, and supporting rationale for the difference in recommended spacing from the agency's published guidance. The Draft EIS should also be revised to acknowledge that actual spacing and design will also be based on consideration of site-specific information.</p>	<p>To maintain potential connectivity across the proposed Northern Corridor, the USFWS Passage Spacing Guidelines (refer to Appendix D, Attachment 2) recommend passages be spaced approximately one adult home range apart so that tortoises living along the road have access to at least one road passage. The Guidelines identify 670 meters as a recommendation, but caveats that passage spacing to account for adult home ranges may not be adequate for all life stages (i.e., juveniles). Over time, various recommendations have been made. In consideration of tortoise concentrations as well as habitat conditions and topography, the spacing and design for the proposed project would be based on site-specific conditions. The size, structure, design, and location of each structure would influence its effectiveness in facilitating passage of tortoises.</p> <p>The reference to "best practices and new science" has been deleted.</p>

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A.05-81	<p>General Comment - Conservation Value of Zone 6 EIS Text: NA Comment: Chapter 3.5.2.1, p 3-64-65, provides a summary of the anticipated conservation value of Zone 6 that underestimates the benefits of this action and contains other errors. For example, this passage of the Draft EIS asserts that "Proposed Zone 6 is within the UVRU, which does not directly adjoin any other recovery unit," which is not factual as earlier discussions acknowledge that the Upper Virgin River Recovery Unit and maps of the recovery units show that the Upper Virgin River Recovery Unit shares a boundary with the Northeastern Mojave Desert Recovery Unit.</p> <p>It is also inaccurate to describe Zone 6 as "relatively small" and unlikely to support an abundance of tortoises on its own. The size of Zone 6 rivals the combined size of Zone 4 and 5 (also functionally isolated from the core of the Reserve, yet nonetheless important to conservation of the species) and data indicate it supports a population that exceeds the abundance of Zone 4 and 5, without substantial support from long-distance translocations. Furthermore, there is no indication that future connectivity to other suitable habitat to the west of Zone 6 will be disrupted such that dispersal into and out of Zone 6 is not possible. The discussion errs in stating that the density of MDT in Zone 6 is "non-quantified", as the County has performed studies to provide this data using methods recommended by the USFWS for that purpose. Finally, the presence of recreational uses in Zone 6 does not appear to have a detrimental impact on MDT abundance given the high density of MDT that have been observed using such areas. Similarly, this comment is not consistent with observations of high MDT density which continue to occur in Zone 2 of the Reserve, and are even increasing at a higher rate than other Reserve Zones. Zone 2, which includes Snow Canyon State Park, receives exponentially more recreational visitation than the proposed Zone 6. The Draft EIS, and the underlying source materials produced by the USFWS, should be revised to provide a more objective view of the conservation value of Zone 6.</p>	<p>Additional text was added to the Final EIS in Section 3.5.2.1 to describe the conservation benefits of proposed Zone 6. While recreational uses in Zones 2 and 6 often co-occur in areas with desert tortoises, recreational use can still affect desert tortoises, even in areas of high density. There are no data or reports showing there is no effect from recreational use in Zones 2 or 6 to desert tortoise density. Refer also to responses to A.05-11 and A.05-72.</p>

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A.05-80	<p>Chapter 3.5.2.1, p 3-60  EIS Text: Direct and Indirect Impacts from Alternative 2  Comment: The for action alternatives where Zone 6 is triggered, the County would retire some of its incidental take authorization. The Draft EIS should be revised to acknowledge this conservation measure when discussion the amount of take that would be available for use during the renewed ITP term.</p>	<p>Section 3.5.2.1 was revised to acknowledge that incidental take of Mojave desert tortoise associated with 3,338 acres of tortoise habitat on non-Federal lands within proposed Reserve Zone 6 would not be part of the County's ITP.</p>
A.05-79	<p>Chapter 3.5.2.1, p 3-59  EIS Text:... the County would not have enough funds to continue all aspects of the Mojave desert tortoise conservation program (e.g., conducting clearance surveys and short-distance translocation of Mojave desert tortoise on lands slated for development).  Comment: This statement misrepresents the County's ongoing obligations under the 1995 HCP if the Amended HCP is not approved. Here, the issue is not that the County might not have sufficient funds to continue management activities and administration, but that the County would not need to spend those funds on future HCP activities. The Draft EIS should be revised to state: "... the County would not spend additional funds on activities to administer the 1995 HCP or implement additional conservation measures."</p>	<p>Section 3.5.2.1 was revised as suggested.</p>
A.05-71	<p>Chapter 3.5.2.1, p 3-55  EIS Text: Survival and recovery of the Mojave desert tortoise is the goal of the Washington County HCP, and the mandate for all Federal agencies [ESA Section 7(a)(1)]. Evaluating project-related impacts in concert with conservation measures provides a perspective on the long-term success of this goal.  Comment: The Draft EIS greatly oversimplifies the goals of the Amended HCP, which include both community and biological goals. These goals are stated in Chapter 6.1 of the Amended HCP.  In any case, while the goals of the Amended HCP may be relevant to understanding the purpose and need for the renewed ITP and alternatives to that action, they are not relevant as a benchmark for evaluating the impacts of the proposed actions. The Draft EIS should be revised to remove this statement.</p>	<p>This statement in the EIS has been revised to indicate that it is one of the goals, so it is not overstated as the only goal.</p>

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A.05-78	<p>Chapter 3.5.2.1, p 3-58                      EIS Text: Development of non-Federal lands within the Amended Analysis Area for the HCP (refer to Map 2.4-1) is expected to continue, but ESA compliance for development projects would be slowed or some development plans may be postponed or canceled by the proponent.                      Comment: The characterization of the No Action alternative does not explicitly recognize that some, perhaps much, of the development of nonfederal lands outside of the Reserve might proceed without the need for ESA authorization and therefore happen more quickly and with less cost than with the Amended HCP or a separate individual HCP, and without conservation benefits.</p>	<p>While the area analyzed in the HCP includes all of Washington County, the area analyzed for HCP Covered Activities in the EIS only includes areas of suitable habitat for the Mojave desert tortoise. Therefore, ESA authorization would be required for any development projects within the analysis area. Development on non-Federal lands that are not suitable habitat for the Mojave desert tortoise is outside the scope of analysis in the EIS.</p>
4778-1	<p>This proposal clearly violates the ongoing commission of the Red Cliffs Desert Reserve and NCA to protect the wildlife in the area. Not only is it destroying the animals established natural habitat generally, but according to the Draft Environmental Impact Statement it would also require the harm or killing of more than 20 of the Desert Tortoises.</p>	<p>Congress, through OPLMA, provided for certain developments within the NCA. UDOT submitted a ROW application to BLM consistent with the provisions of OPLMA. BLM must follow applicable procedures, including full disclosure and public participation, to consider this ROW application. No tortoises are expected to be intentionally killed; however, during ground clearing activities there may be incidental loss of tortoises not found for translocation. Mitigation measures have been developed to protect tortoises and other wildlife. These measures include pre-construction surveys, bio monitors, underpass structures, and tortoise exclusion fencing.</p>
4958-1	<p>Now with the recent fires, as much as 50% of the tortoise population may have been already injured or killed (Deseret News reported that The last time there were major fires within the reserve was 2005 and 2006, which is estimated to have destroyed 25% of the desert habitat within the reserve at the time and is estimated to have decimated the reserves tortoise population by 50%.)</p>	<p>Surveys were conducted in the summer of 2020 to estimate how much of the Mojave desert tortoise population was impacted by the recent fires. New information was added to the Final EIS regarding the fire impacts.</p>

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5017-1	<p>The proposed Northern Corridor thru the Red Cliffs Preserve is in direct and blatant violation of UDOT Construction Specification (UDOT 2017), in that it destroys lands dedicated to the ENDANGERED Mojave Desert Tortoise.</p> <p><b>BLM Sensitive Species</b>                      01355 Environmental Compliance                      2. Threatened or Endangered Species - Perform and provide a wildlife survey as determined by the Engineer to verify no threatened or endangered or other sensitive species are affected by the activity.</p> <p><b>Federally Listed Species</b>                      01355 Environmental Compliance                      2. Threatened or Endangered Species - Perform and provide a wildlife survey as determined by the Engineer to verify no threatened or endangered or other sensitive species are affected by the activity</p>	<p>Construction of a Northern Corridor alignment through the Red Cliffs Reserve, if applicable, would be subject to the 2017 Standard Specifications for Road and Bridge Construction, as defined by UDOT (<a href="https://digitallibrary.utah.gov/awweb/awarchive?type=download&amp;item=83652">https://digitallibrary.utah.gov/awweb/awarchive?type=download&amp;item=83652</a>) and as listed in Appendix D. Before construction activities can commence, a qualified biologist (approved by BLM and USFWS) would be required to perform a clearance survey to verify no threatened or endangered or other sensitive species are affected by the activity. In addition, measures and design features would be incorporated into the project, including wildlife passages and culverts to facilitate movement of animals to either side of the newly constructed roadway, as well as installation of tortoise exclusion fencing to prevent motorized vehicle collisions along the roadway.</p>

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5018-3	<p>Are there any studies that show the viability/quality of the tortoise habitat in the new Zone 6? If this is equal or better tortoise habitat why has it never been designated as critical habitat? Why has it not been protected previously? If there are studies, where are they and what were the outcome? Why are they not included in this EIS?</p>	<p>Due to a lack of survey information across proposed Zone 6 when the 1995 Washington County HCP was prepared, proposed Zone 6 was thought to contain only a small population of Mojave desert tortoise, and most of the area was not considered potential tortoise habitat. In 2017, tortoise surveys were conducted on 3,000 acres of SITLA and 2,150 acres of BLM land, most of which is included in proposed Reserve Zone 6. The survey revealed that a much larger tortoise population exists in this area. Incidental encounters and recreationalists often report locations of sightings. The survey results were summarized in the unpublished UDWR’s <i>Washington County Survey Report: Tortoise abundance on SITLA and BLM Lands West of Bloomington and St. George</i> (Washington County 2017). The results of the survey are incorporated into the analysis within the EIS in Section 3.5.1.1, under the Population Size, Density, and Trends subheading.</p> <p>Lands within the proposed Reserve Zone 6 are owned or managed by BLM, SITLA, UDOT, or local governments and private owners. A portion of proposed Reserve Zone 6 falls within the boundaries of the BLM-designated Red Bluff ACEC, which was designated to provide protections for the dwarf bear poppy and other natural resources, but not specifically to provide protections to the Mojave desert tortoise.</p>

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A.05-59	<p>Analysis Methods and Assumptions - all ITP-relevant resources</p> <p>EIS Text: Approximately one-third of the Proposed Zone 6 Analysis Area falls within the Red Bluff ACEC, which provides specific protections for biological and natural resources. Protections include limiting recreation and OHV travel to designated roads and trails, and increasing stipulations on fluid mineral leasing. Protection benefits already provided to [resource] on lands within the ACEC are not included within the beneficial impacts provided by designation of proposed Zone 6.</p> <p>Comment: The Draft EIS does not acknowledge the additional environmental benefits of the management activities triggered by the Zone 6 changed circumstance of the Amended HCP on lands with ACEC designation. While resources on ACEC lands do experience some protections with the current ACEC designation, the funding and activities proposed by the County and the HCP Partners as part of the Amended HCP enhance these protections, creating additional benefit. For example, the proposed purchase of grazing allotments on BLM administered ACEC lands in Zone 6 could provide a benefit to MDT that is discounted by the presumption that resources in the ACEC are already protected. The Draft EIS should be revised for all ITP-relevant resources to explicitly acknowledge the environmental benefit generated for resources on Zone 6 SLM-administered lands by the additional funding and conservation actions proposed in the Amended HCP.</p>	Refer to response to A.05-76.
A.05-6	<p>The Draft EIS uses different assumptions for assessing the adverse impacts of the Northern Corridor Alternatives than it uses for assessing the beneficial effects of the proposed Zone 6. Direct and indirect impacts should use the same criteria in both contexts (i.e., the same buffer distances for quantification of direct/indirect impacts). For example, under alternatives where Zone 6 is not triggered (including No Action), the default condition should be that the non-federal lands in Zone 6 are subject to land development with the corresponding direct and indirect effects on adjacent BLM administered lands. The triggering of Zone 6 conservation measures reverses that condition and creates a new direct and indirect conservation benefit (see prior point).</p>	Refer to responses to A.05-72 and A.05-76.

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A.05-7	<p>a) The Draft EIS does not consider the benefits of the proposed Zone 6 conservation measures on the BLM-administered Area of Critical Environmental Concern (ACEC) lands in proposed Zone 6.</p> <p>b) The BLM discounts any additional conservation benefit since these lands already enjoy certain protections. This conclusion fails to consider the conservation benefits of proposed actions to remove grazing, increase funds for recreation management, expand education and outreach efforts, install fencing, and implement numerous other conservation measures that will provide direct, additional benefit to the resources contained with the Zone 6 ACEC-designated lands.</p> <p>c) Similar to items a and b above, the indirect benefits from removing development on the adjacent non-federal lands should be assumed to extend on to the ACEC lands to the same distance as the assumed extent of impacts from the Northern Corridor or other forms of development (i.e., 1 km).</p> <p>d) Furthermore, it defies reason for the USFWS to assign little or no conservation benefit to the federally managed lands in the Zone 6 expansion proposal which includes significant land use changes and increased funding to improve conditions for the MDT. The County simply proposes to use the same model of the original ITP which relied on establishment of the Reserve made up of largely federally managed lands.</p>	<p>Text was added to the Final EIS to clarify that there would be a moderate level of conservation benefit to tortoises on 1,126 acres of BLM-administered lands within proposed Zone 6 that are not within the ACEC due to changed management on these lands. Refer also to response to A.05-76.</p>

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5013-1	<p>With the effects of the Turkey Farm Road fire, is there rationale/reasoning for creating additional Mojave desert tortoise habitat in other areas besides Red Cliffs NCA to aid in the recovery of the Mojave desert tortoise? How many tortoises were killed, or will likely die due to a lack of habitat/vegetation as a result of this fire?</p> <p>-It will take many years for the habitat in the burn scar area to recover/regenerate, thus impacting the tortoise recovery.</p> <p>-It does not seem prudent to keep so many eggs in one basket in this instance. If tortoises could be dispersed/relocated to other currently suitable habitats/locations, it seems it would help with a faster recovery, as opposed to having to wait for the burn scar in the Red Cliffs NCA to recover (even with human efforts/involvement, the burn scar may not be suitable habitat for many years).</p>	<p>UDWR and Washington County staff are conducting surveys of the area burned in the Turkey Farm Road fire. Surveys are not yet complete but based on GIS data and the extent of the area burned, it is estimated that up to 6,058 acres of Mojave desert tortoise critical habitat and up to 6,064 acres of Mojave desert tortoise suitable habitat may have been impacted by the fire. Approximately 7,353 acres of the burn area has previously burned, which is an indication that the quality of that habitat may have been previously compromised. Preliminary survey results indicate that the fire has caused tortoise mortality but until surveys are completed an estimate of the number of tortoises that did not survive cannot be calculated.</p> <p>As indicated in the EIS under the SGFO RMP Amendment discussion for Alternative 2, "Proposed Zone 6 is also functionally isolated from the Reserve, providing some redundancy in population representation within the UVRU against stochastic events that may seriously impact either of the population areas."</p>
5257-1	<p>This highway would decimate an intact ecosystem used not only by humans for recreation but also by a multitude of sensitive species (Desert tortoises, chuckwallas, Gila monsters, sidewinders, burrowing owls, Mojave poppy bees should I continue?).</p>	<p>Proposed proponent measures in Chapter 2 and standard stipulations and design features in Appendix D, including but not limited to, underpass structures, pre-construction nest surveys, construction biomonitoring, and tortoise exclusion fencing have been developed to help protect sensitive species and other wildlife during and after construction.</p>

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A.09-6	<p>Zone 6 Conclusions The size of Zone 6 (a little over 10 square miles) would be, at best, only capable of sustaining several hundred tortoises under the best of habitat conditions (inferred from Howard E. Lawler observations), a number far below the minimal 3000 threshold the BLM states that it needs to provide for a genetically viable sustainable population. The draft 2019-2050 Regional Transportation Plan shows that Zone 6 will be impacted or fragmented by 3 major highways in the future. If this current UDOT/HCP initiative is an indication of future planning, Zone 6 becomes even less meaningful as a mitigation area. Zone 6 is a deeply scarred natural area and the plan is ecologically flawed from the viewpoint of this naturalist/biologist Rehabilitation milestones toward a fully functional ecosystem would be measured in centuries to millenia (Lovich &amp; Bainbridge). Excluding recreators would be a thankless, uphill and even an impossible task. By taking on more intense tortoise management of Zone 6, the BLM would predictably end up with two tortoise conservation areas, each of which is too small or compromised to retain a sustainable population of this endangered species and each of which would face greater 'harassment' (human-caused disturbance) from overlapping and significant human presence and use. QUESTION: How will the BLM satisfy the concerns raised by these analyses?</p>	<p>The final version of the 2019-2050 DMPO does not include roads traversing or bisecting the proposed Zone 6 boundary. Roadways proposed northeast of proposed Zone 6 are near developed land that would not be viable for supporting Mojave desert tortoise. While the Western Corridor is proposed adjacent to the western boundary of proposed Zone 6, the planning horizon is 2041-2050 and the funding and construction priorities may change. If constructed, this roadway would further fragment the habitat. Conservation measures would be determined during the environmental review process for the project, which would be subject to ESA Section 7 consultation. The cumulative effects analysis also addresses the effects of planned roadways near proposed Reserve Zone 6. Refer also to response to H.65-482.</p> <p>Proposed Zone 6 may support landscape connectivity for the Mojave desert tortoise among existing ACECs, and the adjacent recovery units. Expanding the geographic extent of the Reserve to include an additional tortoise population with habitat protection and potential for landscape-level habitat connectivity would contribute to the conservation of the Mojave desert tortoise in the UVRU by providing some redundancy and connectivity values. Long-term management in proposed Zone 6 for the benefit of the tortoise would be integrated into the County's management of the overall Reserve. BLM's future travel management plan would reduce the number of trails throughout proposed Zone 6, thereby reducing potential for tortoise harassment by human presence.</p>

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Form 4-15	Zone 6 cant make up for damage the NCH will cause to the threatened Mojave desert tortoise and its habitat in Red Cliffs because it is a heavily-recreated and damaged area. Additionally, the long-term viability of the tortoise population there has not been proven.	Additional descriptions and analysis regarding proposed Zone 6 have been updated in EIS Section 3.5.2.1. Although proposed Zone 6 is heavily used for recreation, proposed measures, including a reduction in recreational trails, will help offset potential impacts. Subsequent to publication of the Draft EIS, measures were developed to minimize impacts to the tortoise. Refer to the Plan of Development, the Avoidance and Minimization Measures in Chapter 2 and Appendix D of the Final EIS.
Form 4-16	The stability of the Zone 6 tortoise population is not addressed, and the accuracy of tortoise population estimates is questioned.	Additional descriptions and analysis regarding proposed Zone 6, including the viability (e.g., density) of the population, survey methodology, and accuracy of estimates have been updated in Section 3.5.2.1.
A.17-1	Additionally, Washington County is spreading misinformation about the Northern Corridor on their official social media. This makes me concerned that those who show support of the current proposal are doing so under false pretense. They are stating that “all [impacted tortoises] will be safely relocated,” when in the public meetings it was clearly said no tortoises will be relocated. Since they are a large point in this decision, the county has not done their due dilligence to let residents accurately understand all that’s at play.	Short-distance translocation of tortoise within the Northern Corridor ROW may occur within Zone 3 of the Reserve to protect them from construction activities. It was stated during the public meeting held on July 21, 2020, that translocation within proposed Zone 6 may be considered in the future if it is deemed acceptable after future monitoring actions; however, tortoise relocations specifically within proposed Zone 6 are not currently planned as a component of the Northern Corridor Project.
10827-11	The stability of the Zone 6 tortoise population is not addressed, and the accuracy of tortoise population estimates there is questionable because a different survey method was used.	Refer to response to Form 4-16.
10827-17	There is an "objection" provision in the ESA regulations that allows stakeholders to challenge the adequacy of a draft HCP/ITP application. I hereby wish to include such an "objection" as part of my comments here and thereby incorporate my tortoise related comments by reference in this email as the basis.	Comment noted.

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Form 4-20	The cumulative impacts of Lake Powell Pipeline on tortoise habitat were not adequately addressed.	<p>Added to the cumulative analysis in Section 3.28.1.4; this section concludes that the Lake Powell Pipeline and other projects listed in Table 3.28-2 would contribute to continued loss and degradation of habitat for the Mojave desert tortoise.</p> <p>The total number of acres and potential number of tortoises that could be impacted by the Lake Powell Pipeline project are identified in the Bureau of Reclamation’s Lake Powell Pipeline Draft EIS. The project will be required to undergo independent environmental analysis. Section 7 consultation with the USFWS under the ESA will be required as well. Appropriate mitigation measures would be determined through those processes.</p>
10827-12	The DEIS lists many projects, such as the proposed Lake Powell Pipeline (LPP), but does not address in any specific or quantifiable way how those projects may contribute to cumulative adverse tortoise impacts. The LPP DEIS admits that hundreds of acres of tortoise habitat may be adversely affected, but this high level of potential impact is not analyzed in either the DEIS or draft HCP.	Refer to response to Form 4-20.
A.21-7	BLM and USFWS should include further discussion and quantification of the impacts to MDT specific to each alternative. By way of example, the DEIS currently includes general discussion regarding the potential number of adult tortoises and critical habitat impacted under each alternative, but the DEIS should include additional discussion regarding the potential impact to the species as a whole under each alternative. See, e.g., DEIS, pp. 3-62 (Table 3.5-11), 3-65–66. This discussion should also indicate which concerns are primarily at issue under each alternative, and what could potentially offset those concerns based on the best available science and requirements of the Endangered Species Act (ESA). The DEIS should further include discussion regarding the specific features of each alternative that benefit MDT and may offset habitat fragmentation and other impacts, including establishment of Zone 6, which is proposed mitigation directly tied to approval of a Northern Corridor route, including Alternative 3.	<p>Because the Reserve alternatives are relatively close together, the impacts to the species as a whole would fundamentally be the same for any of the alternatives given the scale of the distribution of the Mojave desert tortoise range-wide. The only discernable difference at this scale is the number of acres of fragmentation.</p> <p>Analysis of threats to the tortoise from the project is discussed in Section 3.5.2.</p> <p>Refer also to responses to A.05-76 and H.65-106.</p> <p>In addition, text was added to the Final EIS to clarify that there would be a moderate level of conservation benefit to tortoises on 1,126 acres of BLM-administered lands within proposed Zone 6 that are not within the ACEC due to changed management on these lands.</p>

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A.21-8	<p>References in the DEIS that state “Passageways spacing and design would follow USFWS Passage Spacing Guidance... as interpreted with best practices and new science” should be revised and corrected. See, e.g., DEIS, p. 2-7 (emphasis added). This not the correct legal standard. The ESA requires the use of the “best scientific and commercial data available.” 16 U.S.C. § 1376(a)(2). “New science” should be taken into consideration under this standard, but simply because it is “new science” does not mean it is the “best scientific information available.” Indeed, this may very well be an issue for MDT passageways, where some new of information is available that suggests the need for longer passageways, but there is considerable additional information that suggests smaller passageways are effective. The DEIS should provide all of this information so that the best available science can be determined during formal consultation and made available for review and comment by UDOT, as the right-of-way applicant, and Washington County, as the Habitat Conservation Plan applicant. UDOT further points out that a draft report cannot be considered the “best available science” due to its tentative and preliminary status, and believes references to any draft, unpublished, or unofficial reports or documents (e.g., Draft Biological Report, USFWS 2020a, Working Paper/Unpublished Data, USFWS, 2020b, Workshop Notes, USFWS 2019b) in the DEIS are not appropriate to support statements that are inconsistent with published documents and information.</p>	<p>Subsequent to publication of the Draft EIS, measures were developed to minimize impacts to the tortoise. Refer to the Plan of Development, the Avoidance and Minimization Measures in Chapter 2, and Appendix D of the Final EIS. These measures are considered to be the current best management practices and the reference to “best practices and new science” has been deleted.</p> <p>The reference to “best practices and new science” has been deleted.</p> <p>Regarding USFWS workshop and USFWS 2020a, refer to response to A.05-12.</p>
A.21-9	<p>Separately, the DEIS states that BLM will require fencing, shade structures, and passages under the highway as mitigation measures for the Northern Corridor. See, e.g., DEIS, p. 2-7. However, the DEIS does not explain the basis for these mitigation measures. The DEIS should specify and justify the precise mitigation measures that would be needed to address the impacts of the highway construction on the MDT and its designated critical habitat. When formulating additional mitigation measures for the Northern Corridor, BLM and USFWS should account for the beneficial effects of mitigation that is attributable to BLM’s approval of the right-of-way, including the establishment of Zone 6 and the addition of culverts under Cottonwood Springs Road.</p>	<p>Subsequent to publication of the Draft EIS, measures were developed to minimize impacts to the tortoise. Refer to the Plan of Development, the Avoidance and Minimization Measures in Chapter 2, and Appendix D of the Final EIS.</p> <p>Additional benefits of proposed Zone 6 have been added to Sections 3.5.1 and 3.5.2 in the Final EIS. As described in EIS Section 2.4.2.6, actions to better protect the Mojave desert tortoise population within proposed Zone 6 include community education, utility exclusions, reducing recreational trails, law enforcement, support of staffing, and monitoring.</p>

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A.21-10	<p>While UDOT believes BLM and USFWS should include further discussion regarding the effectiveness of any proposed mitigation measures supported by best available science, there is insufficient information currently available on any additional requirements that would apply or be needed under the ESA for the MDT beyond establishment of Zone 6. Requiring large bridges or passageways at this point is inappropriate because such requirements would be fundamental and significant changes to the Proposed Action. No justification or rationale has been provided for such expansive and expensive mitigation and the Final EIS should confirm that no such requirement is needed or allowed at this stage without applicant consent. To illustrate the point, according to the DEIS there are 10,010 MDT within the Upper Virgin River Recovery Unit, which is the applicable unit for the project. DEIS, p. 3-47. However, Alternative 3 would require translocation of only 20 potential MDT, with indirect impacts to 185 MDT. DEIS, p. 3-62 (Table 3.5-11). Conversely, Alternative 3 would result in establishment of Zone 6, which would provide benefits for MDT including protection of 6,760 acres of occupied MDT habitat. DEIS, pp. 3-57, 3-64.</p>	<p>Subsequent to publication of the Draft EIS, measures were developed to minimize impacts to the tortoise. Refer to the Plan of Development, the Avoidance and Minimization Measures in Chapter 2, and Appendix D of the Final EIS.</p> <p>It has been suggested that bridges and viaducts may be more effective at maintaining desert tortoise habitat and demographic connectivity as compared to culverts because wash habitats have higher potential for use by tortoises (USFWS 2014, Lesbarrères and Fahrig 2012). Bridging large washes with long, elevated structures provides habitat linkages where tortoises may move along the wash and continue to live and interact with other tortoises. Bridging washes would also reduce destruction of burrows, which tend to be concentrated along washes and exposed bedrock shelves forming canyon walls above the wash.</p> <p>Table 3.5-11 (now Table 3.5-12) has been updated to reflect the estimated abundance of tortoises in each alternative based on kernel density data, indicative of clusters of tortoises. In the Draft EIS, it was estimated that 20 tortoises might need to be translocated from the ROW with Alternative 3; this has been revised in the Final EIS to 40 adult tortoises based on the kernel density data.</p> <p>Similarly, the number of tortoises indirectly impacted from the project was changed from 185 tortoises to an estimated 249 tortoises based on the kernel density data.</p> <p>Text has been added to further describe the benefits of proposed Zone 6. Please refer to Section 3.5.2.1.</p>

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A.21-11	As discussed above, Zone 6 provides very substantial mitigation that goes well beyond the impacts of Alternative 3 with regard to impacts to the MDT. The DEIS should clearly state that the Zone 6 mitigation is attributable to the highway construction under Alternatives 2, 3, or 4, and not solely assigned to the Habitat Conservation Plan as a changed circumstance. In this context, the Alternative 3 highway project provides significant benefits to the MDT resulting from the establishment of Zone 6 and should not be ignored in order to seek even more mitigation without scientific or legal basis.	Compensation or balancing impacts to benefits is more than just a simple addition or subtraction of acres. The analysis considers other effects that extend beyond just acres impacted. This analysis will be conducted by USFWS in accordance with Section 7 of the ESA for the issuance of the ITP permit under the HCP.
A.21-12	UDOT is concerned that the statement “Recognizing that the 95 percent confidence intervals from 2017 and 2019 surveys overlap” to support the use of 17.2 tortoises does not sufficiently demonstrate use of robust statistical methods. DEIS, p. 3-55. A purpose of the 2018 and 2020 project-specific MDT surveys was to provide population information, but that information appears to be excluded from the estimate of tortoise abundance. The 2018 and 2020 survey data is specific to the highway corridor area and should be presented along with the 2017 and 2019 data, if not instead of the 2017 and 2019 data.	Subsequent to the publication of the Draft EIS, the methodology to calculate density of tortoise within the Reserve was revised to incorporate the use of kernel density data in Zone 3. Because tortoises are clustered in distribution, the kernel density analysis allows for evaluation of areas within Zone 3 outside of each ROW, including the buffer and fragmented habitats to the southern border of the Reserve. The 2018 surveys were limited to the UDOT Application Alignment ROW and if used in density calculations would overestimate the number of tortoises on this alignment compared to data that covers all alignments in Zone 3. The 2020 surveys recorded burrow observations within the ROW of each Reserve alignment. However, the 2018 and 2020 data were used in connectivity discussions and crossing structure recommendations, which considered all tortoise observations from all data sources. Because kernel density analysis is being applied, there is no confidence interval.
A.21-14	The discussion of MDT roadway mortality data should address the benefits of tortoise exclusion fencing and how mortality rates have slowed since the Reserve boundary and roads have been fenced. See DEIS, pp. 3-36–37. This information is addressed in Utah Division of Wildlife Resources, Washington County Field Office Field Report: Desert Tortoise Road Mortality Annual Report (2019).	Added text to Roadways section regarding tortoise mortality reduction due to fencing of roads. Also, text was added regarding fenced roads in the Reserve. Refer to Section 3.5.1.1.

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A.21-15	<p>The DEIS should more clearly discuss the threats and impacts that MDT will face by existing activities and potential development under the no action alternative. For example, if a Northern Corridor route is not approved, 6,760 acres would not be created for Zone 6. As a result, without creation of Zone 6, this acreage would continue to be subject to habitat degradation and loss from motorized and non-motorized recreational trails, developed and used for informal parking areas, target practice areas, livestock fencing, and areas cleared of vegetation from off-highway vehicle use; habitat fragmentation from fencing (not tortoise exclusion fencing); risk of injury or death and destruction of burrows from existing and user-created roads and trails; and potential future development and ground-disturbing activities.</p> <p>The DEIS should accordingly contrast these increasing impacts to MDT to the significant benefit that MDT will gain as a result of selection of a Northern Corridor route and creation of Zone 6.</p> <p>At the same time, the DEIS should further discuss the beneficial effects of Zone 6 (created if a Northern Corridor route is selected) to facilitate easier comprehension of the collective effects of the alternatives. For example, additional discussion regarding Zone 6 could be added in Sections 3.5.1.1 and 3.5.2.1. See DEIS, pp. 3-35, 3-39, 3-48, 3-50.</p>	<p>Additional benefits of proposed Zone 6 have been added to Sections 3.5.1 and 3.5.2 in the Final EIS. Additional analysis was added to Alternative 1 (the No Action Alternative) in the Final EIS.</p>
A.20-2	<p>ES; ES-10; Table ES.5-1; Cell 5C. Comment: Under Alternative 2 – T-Bone Mesa (Special Status Wildlife) Cell 5C – there is an erroneous assertion that: “The amended HCP would facilitate development... at a faster pace ...” This assertion is unproven, inaccurate and misleading.</p> <p>The pace of development and growth in Washington County is forecast by the Kem C. Gardner Policy Institute. The Institute’s forecasts for the region are based on natural increase trends, economic development trends, job creation policies and in-migration trends which, according to Natalie Gochnour, Associate Dean and Director of the Institute, are all unaffected by the existence of any single infrastructure project. The statement should be removed throughout the EIS document.</p>	<p>The Executive Summary was revised to remove text regarding the pace of development.</p> <p>The effects of development on Mojave desert tortoise (e.g., habitat loss and fragmentation) on non-Federal land would largely be the same as under the Countywide ITP, but without the benefit of a comprehensive conservation program (e.g., beneficial indirect effects).</p>

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A.30-11	<p>ES.5-1; ES-10</p> <p>The Special Status Wildlife topic in Alternative 2 fails to adequately recognize the additional populations and habitat of the desert tortoise that would be protected from potential development in Area 6, yet specifically calls out the “direct loss of Mojave desert tortoise habitat...” Since Alternative 3 refers to the impacts called out in Alternative 2, this inadequate language carries over into Alternative 3. This needs to be changed to recognize the benefit to tortoise habitat by the inclusion of Area 6.</p>	<p>Text has been added to further describe the benefits of proposed Zone 6 Alternative 2. Please refer to Section 3.5.2.1.</p>
H.65-8	<p>Given the steady decline of MDT in the UVRU (discussed elsewhere in these comments), and BLM's obligation to ensure that any action authorized, funded, or carried out is not likely to jeopardize the continued existence of MDT or result in the destruction or adverse modification of MDT critical habitat, BLM must consider providing additional protections to benefit the threatened MDT. See 16 U.S.C. § 1536(a)(2); see comments at section "III. The Draft HCP Fails to Mitigate Take of the MDT to the Maximum Extent Practicable" for additional discussion on how protection and restoration of lands in Zone 6 may benefit the MDT.</p>	<p>Refer to response to A.51-91.</p>

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H.65-44	<p>The DEIS fails this most basic NEPA requirement, and the DEIS references - but fails to provide public access to - many critical documents, including the Resource Equivalency Analysis and Spatial Support Model. In the DEIS, BLM and the Service note:</p> <p>"The USFWS is considering existing modeling approaches for the Mojave desert tortoise including a spatial decision support model used to evaluate impacts and conservation measures of proposed land use activities. Another possible tool to aid in this analysis is a resource equivalency analysis. This model evaluates the biological values over time including both the losses from the project and the gains from proposed conservation measures. USFWS is considering these and other approaches to evaluate both the potential impacts to the Reserve, impacts to the tortoise and its habitat, and the conservation value of the proposed conservation measures."</p> <p>DEIS at 3-57. Although the DEIS cites this model, it never provided this model to the public or otherwise allowed public access to independently examine and evaluate it. An agency may incorporate publicly available data underlying the EIS by reference, but only if the agency cites the source, briefly describes the content, and only if the source "is reasonably available for inspection by potentially interested persons within the time allowed for comment." 40 C.F.R. § 1502.21; 40 C.F.R. § 1502.24 (requiring the agency to "make explicit reference by footnote to the scientific and other sources relied upon for conclusions in the [EIS]").</p>	Refer to response to A.05-13.

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H.65-88	<p>The DEIS states that the management target for viable MDT analytic units is 3,000 individuals but fails to show how this calculation is made. The DEIS at 3-35 references a 2019 USFWS workshop<sup>30</sup> and similarly DEIS at 3-45 references a USFWS 2020 Draft Biological Report. The USFWS 2020 report offers the 3,000 figure saying participants at a 2019 workshop "indicated that 3,000 adult desert tortoises should be sufficient for this long-lived species to prevent genetic deterioration over the next 25 to 50 years in each AU (USFWS 2019a)." USFWS 2020 at 30. No scientific basis is offered for the 3,000 figure.</p> <p>The 1994 Desert Tortoise (Mojave Population) Recovery Plan which informed the 2011 Recovery Plan suggests that "a minimally viable population of desert tortoises from genetic considerations should probably contain at least 2,000 to 5,000 adult animals." USFWS 1994 at 32. Given that in 1994 (and when the 2011 Recovery plan was crafted), the importance of habitat connectivity was not fully appreciated, this number may in fact be low and the DEIS absent evidence to the otherwise should use the 5,000 figure. <sup>31</sup></p>	<p>As part of continued refinement of the biological report, the reference to 3,000 individuals as a management target has been struck from the EIS. Conservation measures require that all tortoises within the ROW (which is to be fenced with tortoise exclusion fencing) would be translocated a short distance out of harm's way, thereby avoiding or minimizing any tortoise mortality. Refer also to response to A.05-12.</p>

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H.65-89	<p>The DEIS at 3-48 states that 76 live MDT were found within Zone 6 when surveying transects.<sup>32</sup></p> <p>This information was from a survey conducted by Washington County in 2017 (Washington County 2017). The survey report shows a map of the surveyed area (orange line in first map below). When we compare the surveyed area to Zone 6 (second map below) it is apparent that a large chunk of BLM land south and southeast of the northernmost SITLA parcel was not surveyed (this area is demarcated on the second map below). Yet the DEIS states that 6,760 of the 6,800 acres - all but 40 acres -- within the proposed Zone 6 are occupied.<sup>33</sup> Extrapolating from the survey areas to proximal un-surveyed areas is inappropriate given the wide variation in habitat types. Washington County 2017 at 4 ("Although the survey area is relatively small, the soil and terrain varies greatly.") Hence, the DEIS' statement that 6,760 acres in Zone 6 are occupied MDT habitat appears to be a considerable over-inflation, at least based on the cited survey.</p>	<p>The 2,345 acres within the Red Bluff ACEC within proposed Zone 6 were not surveyed for tortoises in order to protect fragile soils.</p> <p>Refer also to response to A.05-11 for more information regarding surveys and tortoise densities in proposed Reserve Zone 6.</p> <p>The surveys that were conducted within and adjacent to proposed Zone 6 covered 5,150 acres; and a total of 78 live tortoises and 239 burrows were located. In addition to these surveys, observations of tortoises in the ACEC were solicited through community science, reporting a total of 92 tortoises in the area where formal surveys were not conducted. Together, these data demonstrate that tortoises are distributed throughout proposed Zone 6, though the density is expected to vary somewhat across the landscape, with an expectation that on average, tortoise densities in unsurveyed areas of proposed Zone 6 (which is mostly located in the ACEC where the highest level of habitat protection is provided), would be similar to that in surveyed areas. Text has been updated in the Final EIS Section 3.5.1.1 to reflect these findings.</p>

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H.65-90	<p>The DEIS at 3-48 describes that the MDT population within the UVRU is in a serious decline but then in overt contradiction states that the UVRU MDT population is stable:</p> <p>Within the UVRU, the 2014 population estimate represents a 24 percent decrease from an estimated 13,226 Mojave desert tortoises in 2004 (Allison and Mcluckie 2018). However, this rate of decline is based on data collected within the Reserve; therefore, the rate of decline outside of the Reserve could be greater. Within the Reserve, UDWR surveys between 1999 (3,404 Mojave desert tortoises) and 2020 (2,011 Mojave desert tortoises) show an overall decline of 41 percent (UDWR 2020). These estimated declines include losses as a result of a 2002 drought and a 2005 wildfire. Survey results for estimated Mojave desert tortoise abundance conducted after the 2005 wildfire (2007 and 2019) have ranged from a low of 1,603 (2009) to a high of 2,238 (2011). <i>As a result, UDWR considers that the population may be stable</i>, although more years of data without a stochastic event are needed to confirm this assumption (UDWR 2020).</p> <p>Emphasis added. We see no evidence that the MDT population is stable or even close to stable.</p> <p>To the contrary, the MDT population in the entire UVRU is close to the target minimum population of 3,000 offered in the DEIS (discussed above). The MDT populations in the East and West Cottonwood Analytical Units are considerably below the 3,000 figure. Additionally, population growth rates are negative in the Analytical Units and in the UVRU, which indicates that we are trending away from recovery per the 2011 Recovery Plan. USFWS 2011 ("[I]f all areas demonstrate a positive population trend regardless of actual population counts, the interpretation will be that recovery is occurring.")</p>	<p>Prior to the 2020 fires within the Reserve, the UDWR considered the Reserve population as a whole, to be stable between 2007 (post the 2005 fires) and 2019, although declines were observed in certain areas. The stability of the population within the Reserve post the 2020 fires is yet to be determined. The determination that the population is <i>stable</i> is not meant to imply that the population is trending toward <i>recovery</i>.</p> <p>Regarding the perceived 2019 decline, the low detection rate discovered as a result of the 2019 surveys may be representative of low levels of surface activity by tortoises due to indirect impacts from a drought in 2019 (i.e., low forage and low water availability). The low detection rates are not presumed to be indicative of mortality, because survey results within the Reserve revealed a mortality rate of 4 percent, which is within the range of previous monitoring years as well as most other populations in the Mojave Desert (UDWR 2020).</p> <p>As part of continued refinement of the biological report, the reference to 3,000 individuals as a management target has been struck from the EIS. Refer also to response to A.05-12.</p>

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H.65-94	<p>First, the DEIS states that the purpose of the Nussear et al. (2019) model was to "estimate the distribution of Mojave desert tortoise across its entire range" and "was used to estimate the current extent of Mojave desert tortoise habitat within the UVRU." DEIS at 3-49.34 This is not correct. In fact, as Nussear et al. 2019 explain, the model provides an output of the statistical probability of MDT habitat potential that can be used to map potential areas of MDT habitat. The model provides outputs at a coarse scale - i.e., at a spatial resolution of one square kilometer. The model identifies potential habitat by looking at inherent land characteristics (e.g., soil type, slope) and does not account for land condition or anthropogenic activities. Hence, as Nussear et al. 2019 strongly point out (e.g., see pages 1 and 15), the maps generated by the model should not be interpreted as suitable habitat.</p>	<p>The peer-reviewed Nussear et al. (2009) U.S. Geological Survey model is the best available science to identify potentially suitable habitat. Refer to "Mojave Desert Tortoise Habitat Mapping for the UVRU" within EIS Section 3.5.1.1 for a discussion of the refinements to and application of the model for the UVRU. For example, 8,750 documented observations of Mojave desert tortoise and sign were used to confirm the modeled U.S. Geological Survey habitat. Another refinement to exclude developed lands and other unavailable habitat for tortoises, as well as removing small patches of modeled habitat less than 1 square kilometer in size when isolated by open water or hardscape. In an urban environment, a tortoise within a small isolated habitat patch typically is a released or escaped captive animal.</p>
H.65-95	<p>While the DEIS at 3-49 acknowledges that the model offers information on the probability of potential habitat, the DEIS then goes forth to use the model to calculate MDT suitable habitat. E.g., see DEIS at 3-49 ("Potential Mojave desert tortoise habitat is modeled habitat that is not associated with a documented Mojave desert tortoise occurrence, <i>but is modeled as suitable</i> for use by Mojave desert tortoise.") Emphasis added. The agencies must be sure not to inappropriately interpret the model as identifying suitable habitat and cannot use the output to compare acres of suitable habitat gained and lost by the proposed actions.</p>	<p>Refer to response to H.65-94.</p>

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H.65-96	<p>Second, the DEIS modifies the model. One alteration is to remove areas with less than 50% probability of habitat potential. DEIS at 3-49. According to Nussear et al. (2009) at 12, a probability of 50% indicates the equivalent of a random guess as to whether an area may or may not be potential tortoise habitat and 100% indicates perfect model performance. Hence, the DEIS is regarding areas that have a random chance of being MDT potential habitat as well as those that have a 100% chance as all being suitable habitat. The DEIS does not offer a scientific basis for using such a broad range or for not trying to grade the habitat by its potentiality in the mapped outputs. Another alteration was to remove patches smaller than one square kilometer when isolated by open water or hardscape. DEIS at 3-49. We presume that this is based on the home range size of an adult tortoise. Again, this number seems arbitrary and without scientific basis given that one adult tortoise does not result in viable populations.</p>	Refer to response to H.65-94.
H.65-97	<p>Third, in addition to the fact that the Nussear et al. 2009 model does not account for anthropogenic activities and land conditions, it also does not account for potential habitat patch size or configuration or patch connectivity. It is a well-accepted tenet of conservation biology that larger intact habitat patches, smaller edge/core ratios, and more connectivity among patches improves habitat potential (Forman and Godron 1986; August et al. 2002; Groves et al. 2002; Fayrig 1997). The model does not account for these factors. This is another reason why the agencies cannot regard the map output as a proxy for suitable habitat and must regard it as a display of potential habitat based on inherent land characteristics.</p>	Refer to response to H.65-94.
H.65-99	<p>Finally, Feinberg et al. (2019) also offers a human footprint component. While the report only applies this model to Southern Nevada MDT habitat, the report nonetheless offers the methodology which attempts to account for the presence of some anthropogenic features including unpaved roads and transmission lines. This information allows for a better evaluation of whether areas of modeled high-quality potential habitat have been degraded by these two types of features. Feinberg et al. (2019) at 2 and 11.</p> <p>Note that Feinberg et al. (2019) and Gray et al. (2019) model potential habitat and, similar to Nussear et al. (2009) are based on inherent characteristics of the land and not on current condition or anthropogenic activities.</p>	Refer to response to H.65-94.

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H.65-105	<p>In discussing the impacts of paved 2-4 lane highway roads on MDTs, the DEIS at 3-35 offers the following: "How much of an impact a roadway has on an individual tortoise or population is a function of the size and frequency of use of the road. Von Seckendorff Hoff and Marlow (2002) identified a direct correlation between higher traffic levels and greater road avoidance distances in Nevada. They reported that the magnitude of the road impact zone for roads without exclusion fencing varied from 2,150 to 4,250 meters for 2-lane to 4-lane highways, and 1,090 to 1,389 meters for graded and maintained electrical-transmission-line access roads. The zone of impact increased significantly with increasing traffic levels, and populations were found to be depressed from less than 175 meters to up to 4.6 kilometers from a roadway (Von SeckendorffHoff and Marlow 2002)."</p> <p>However, in contradiction to these findings, the DEIS then goes on to calculate the affected acres of MDT habitat from the proposed NCH alignments using a width of 508 m. See, for instance, Table 3.5-10 at 3-59 where the DEIS uses a road effect zone of 508 meters to calculate the acres indirectly affected by NCH road alignments. The DEIS at 3-56 states: "The analysis area for indirect effects from the Northern Corridor alternatives in the Reserve that require construction of a new roadway includes suitable Mojave desert tortoise habitat within 508 meters on either side of the ROW. The 508-meter buffer is based on the annual home range size of an adult male Mojave desert tortoise of 200 acres (Franks et al. 2011, USFWS 201 la). The annual home range was applied because of the short-term indirect effects of noise, vibration, and other construction related disturbances." The rationale for the 508-meter buffer makes no sense since the effects of roads are well documented to continue beyond the short-term construction period (Von Seckendorff Hoff and Marlow 2002; DEIS at 3-35 to 3-37).</p> <p>This error significantly underestimates the impact to MDT critical habitat from the proposed NCH road alignments and must be corrected in the FEIS.</p>	<p>The Von Seckendorff Hoff and Marlow study refers specifically to <i>unfenced</i> roads. The Northern Corridor would be a fenced road, which greatly reduces potential loss of tortoises.</p> <p>Text was revised in the EIS to clarify the discussion between fenced and unfenced roads.</p>

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H.65-106	<p>The DEIS does not evaluate the impact of the proposed NCH road alignments on critical habitat in violation of NEPA. This analysis is crucial to an accurate evaluation of the various alternatives. It is also integral to the Section 7 evaluation required by the Endangered Species Act (ESA). While the DEIS does evaluate impacts to Zone 3 habitat (which is critical habitat), it does not evaluate how the proposed NCH alignments will affect critical habitat for the MDT as a whole.</p> <p>The proposed NCH, regardless of alignment, would result in the destruction and adverse modification of critical habitat within the East and West Cottonwood A Us that house close to 40% of MDT in the UVRU as well possibly "the most important high-density cluster of desert tortoises in the recovery unit" (DEIS at 3-63) and further reduce the population within these two analytical units. Given that the East and West Cottonwood AUs currently have populations below the minimum population deemed necessary for a single AU to prevent genetic deterioration over the next 25 to 50 years, further diminishing the habitat and dependent MDT population may in fact deliver a mortal blow to the UVRU unit, and thus (because the UVRU is necessary for the long term survival of the species) to the broader MDT range.</p>	<p>Within Section 3.5.1.1, Range, Recovery Units, Analytical Units, and Designated Critical Habitat, discussion of impacts to critical habitat are included. Table 3.5-12 identifies impact of each roadway alternative on critical habitat. Designated critical habitat within the UVRU totals 54,600 acres, which is less than 1.0 percent of the total acreage of designated critical habitat for the species range-wide. The Southern Alignment would result in the greater loss of critical habitat than the other alternatives with approximately 0.73 percent (340 acres) loss of critical habitat within the Reserve.</p> <p>Conservation measures require all tortoises within the ROW (which is to be fenced with tortoise exclusion fencing) would be translocated a short distance out of harm's way, thereby avoiding or minimizing any tortoise mortality.</p> <p>As part of continued refinement of the biological report, the reference to 3,000 individuals as a management target has been struck from the EIS. Refer also to response to A.05-12.</p> <p>Numerous crossing structures would be included for any of the project alternatives in the Reserve, thereby reducing the effects of fragmentation, including genetic deterioration.</p>

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H.65-107	<p>By our calculation, Alignment 3, the agencies' preferred alternative, would destroy about 870 acres of critical habitat within the 500 foot wide highway corridor (gray in the map below) and substantially diminish 1,085 acres of critical habitat that would be fragmented from the rest of the habitat in the Red Cliffs NCA and functionally disabled (orange), and substantially diminish the quality in at least another 12,248 acres of critical habitat north of the NCH in the road effect zone (yellow).<sup>38</sup> Given that 42,598 acres of critical habitat remains suitable within the UVRU, the NCH will adversely impact over one third (36%) of the remaining suitable critical habitat.</p> <p>What is the effect of losing this critical habitat to the ecological function of the AUs, the UVRU, and the range? What is the effect to MDT conservation, viability and recovery? The DEIS fails to offer this very important context without which the agencies cannot make a reasoned decision.</p>	<p>The Von Seckendorff Hoff and Marlow study refers specifically to <i>unfenced</i> roads. The Northern Corridor would be a fenced road, which minimizes the road effect and potential loss of tortoises. Impact acres to critical habitat by alternative are provided in Table 3.5-12.</p> <p>Text was revised in the EIS to clarify the discussion between fenced and unfenced roads.</p>
H.65-108	<p>The agencies have a duty to take a hard look at the consequences of their proposed actions under NEPA. The DEIS fails to take a hard look at the effects of the alternatives on Zone 3 and Zone 6 lands and resources relative to the following issues.</p> <ul style="list-style-type: none"> <li>• <b>Predation.</b> The DEIS fails to evaluate the effect building the NCH will have on predator presence and predation on the MDT. The DEIS generally states that roads result in increased habitat degradation and predation, the latter because roads increase roadkill and litter which attract predators like ravens and coyotes. DEIS at 3-36. However, the DEIS fails to calculate or estimate MDT loss from increased predation resulting from the NCH.</li> <li>In addition, if predation increases, the agencies may increase predator control which has its own array of impacts to ecological integrity and community safety. These impacts are not discussed or disclosed.</li> <li>• <b>Disease.</b> While the DEIS raises the specter of disease as an increasing threat with increased urbanization, it does not in any way attempt to quantify this effect given further fragmentation in Zone 3 and increased translocations. The DEIS also fails to consider an increase in upper respiratory tract disease in MDT in Zone 6. This MDT population lives adjacent to fast-growing communities on the western edge of St. George and sees a great deal of human interaction.</li> </ul>	<p>Predation is one of the numerous threats to tortoises addressed in Section 3.5.1 of the EIS. While there are studies that show that roads may lead to increased raven predation of tortoises, it is difficult to extrapolate the number that would be lost to an increase in predation because it would be unknown how many ravens would benefit. As stated in the EIS, raven nests in the Reserve area are typically found on perches such as transmission lines or on cliffs. There are no planned transmission lines associated with the Northern Corridor project. There are cliffs, primarily at Middleton Wash, that can support raven nests.</p> <p>There are measures in place to reduce the potential impacts from ravens, including active monitoring of ravens within the Reserve by Washington County. Other measures to reduce short-term impacts of construction activities (such as increased human activities that could result in trash) also would reduce the potential impacts from ravens.</p> <p>The SGFO RMP includes measures to address raven predation, as presented in Table 2.5-1 of Chapter 2</p>

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		<p>of the Final EIS. The No Action Alternative for the SGFO RMP Amendment would make no changes to the existing RMP. The current RMP includes the following: In collaboration with affected State and Federal agencies, predator control in either area may be allowed using techniques designed to control target species only. Additional environmental compliance requirements would apply.</p> <p>Both Alternatives B and C of the SGFO RMP Amendment state that if other management actions have not been successful in reducing documented predation levels that have been shown to be measurably impacting the recovery of viable Mojave desert tortoise populations, a targeted species-specific predator control plan would be developed. The plan would designate specific goals to be met and evaluate the least invasive and most ecologically sensitive methods to accomplish those goals.</p> <p>Disease is also a threat to tortoises. Only short-distance translocation of tortoises (within their own home range) would occur if a new roadway was approved within Zone 3; this would not introduce additional threat of disease.</p> <p>Due to the relatively recent discovery of the tortoise population within proposed Zone 6, information regarding predation and disease rates available within this population is limited. Other than a tortoise exclusion fence to separate proposed Zone 6 from human access and development, manufactured structures (e.g., roads and utilities) are not proposed within proposed Zone 6 under Alternatives 2, 3, and 4.</p> <p>Monitoring of these newly incorporated Reserve lands would potentially improve detection of disease within the tortoise population.</p>

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		<p>If the lands are not included in the Reserve, as would be the case under Alternatives 1, 5, and 6, the non-Federal lands within the proposed Zone 6 boundary could be developed, thus increasing the potential of disease and predation and increased use within the population in the Reserve.</p>
H.65-109	<ul style="list-style-type: none"> <li>• Translocation. The DEIS fails to disclose and consider the following information related to translocation: <ul style="list-style-type: none"> <li>– The potential trans location of tortoises impacted by the NCH may not be successful given studies to date that show translocation leads to higher stress and lower reproduction (Berry 2016). DEIS at 3-43. The DEIS makes no effort to estimate the likelihood of translocation success of MDT into Zone 6.</li> <li>– The likelihood of adverse impacts to translocated MDT in Zone 4 that will be caused by widening and paving the Babylon Road (Project 91 in the Dixie MPO's Draft 2019-2050 Regional Transportation Plan<sup>39</sup>) through Zone 4.</li> <li>– The fact that MDT that are translocated a short distance to remove them from the NCH construction zone would be subject to stresses induced by translocation and subsequently stresses induced by the presence of the road (within the road effect zone), and the effects of the combined stressors.</li> <li>– Further, the DEIS does not explain or include information on whether MDT located south of the NCH will be trans located to another site. No details are provided on a translocation plan for tortoises impacted by the NCH.</li> <li>– Finally, calculations of the number of MDT that would be relocated from the BLM preferred NCH ROW based on 2017 density estimates are inadequate because they are much lower than the number of tortoises actually observed in the 2018 pre-survey of the NCH ROW. Surveyors observed more than 50 tortoises in the ROW and 300-foot buffer area discussed previously in this section. Since this analysis is based on a 500-foot ROW area, the number of tortoises that would be relocated should be expected to be well over 50 individuals.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• There is no currently planned translocation into proposed Zone 6 as a part of this project; however, if future monitoring suggests otherwise, translocation may be considered in the future.</li> <li>• Babylon Road is unfunded; thus, it is not considered in cumulative effects. Assessing the impacts is beyond the scope of this EIS.</li> <li>• Under-road crossing structures (refer to Appendix D Attachment 2 for design criteria) would be constructed to allow movement from south of the road to north of the road and vice versa. By constructing passageways tortoises would not need to be translocated south of the road.</li> <li>• A short-distance translocation plan would be developed to address moving animals out of harm's way (out of the ROW only), prior to initiation of construction and would follow the USFWS guidelines at that time.</li> <li>• The ROW would typically be 300 feet wide, but 500 feet were analyzed to account for cut or fill areas that might extend beyond 300 feet.</li> <li>• Subsequent to publishing the Draft EIS, the methodology to estimate density within the Reserve was modified to use kernel density estimates. USFWS recently developed an estimate for tortoise abundance within Zone 3 of the Reserve based on UDWR long-term monitoring data that showed that desert tortoises are not evenly distributed on the landscape. The UDWR Reserve monitoring dataset was filtered to include only survey</li> </ul>

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		<p>transect observations between 2007 and 2017, excluding data that preceded the last major wildfires in Zone 3. Using the Kernel Density Tool in ArcPro Geographic Information System, mapping was generated that provides a more detailed assessment of the variability of tortoise abundance across the landscape within Reserve Zone 3. Analysis of tortoise densities are reflective of this clustering of tortoise populations that occurs throughout Zone 3, with higher tortoise densities in or near Middleton Wash and other areas along each alignment. The Final EIS has been updated in Section 3.5.2.1 to incorporate this information. Table 3.5-12 has been updated to reflect the estimated abundance of tortoises in each alternative based on kernel density data, indicative of clusters of tortoises.</p>

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H.65-110	<p>Fragmentation and climate change. The DEIS fails to fully analyze habitat fragmentation impacts caused by the NCH because it does not address how the highway will act as a barrier for MDT south of the proposed highway attempting to travel to higher elevations in Red Cliffs located north of the proposed highway. The DEIS acknowledges that with climate change, MDT may need to access higher elevation habitats: "Climate change may potentially affect future distribution and habitat use by Mojave desert tortoises. Assuming a general increase in temperatures, vegetation communities may shift to higher elevation as may tortoise populations. Most documented Mojave desert tortoises in the Reserve are found below 4,000 feet elevation." DEIS at 3-56. <sup>40</sup> Perplexedly, the DEIS then says that "[t]he approximately 2,360 acres of potential habitat on the Reserve between 4,000- and 5,000-foot elevation would not be restricted by any project-related actions." Id. Wouldn't the MDT south of the highway be unable to access higher elevation habitats? Given that MDT have almost never been documented using culverts to pass through highway corridors, the DEIS should not rely on culverts to enable connectivity. DEIS at 3-36.</p>	<p>Subsequent to publication of the Draft EIS, measures were developed to minimize impacts to the tortoise. Refer to the Plan of Development, the Avoidance and Minimization Measures in Chapter 2, and Appendix D of the Final EIS. If approved, the roadway design would include passageways across the highway that could be used by Mojave desert tortoise where exclusion fencing has been placed along the highway. Under-road crossing structures are proposed (refer to Appendix D Attachment 2 for design criteria) that would vary in size and be developed in final design of the project in coordination with the BLM and USFWS. Passageways will help offset the impacts from fragmentation and will allow tortoises to travel from north to south of the road.</p> <p>Text changed to: Project-related actions would not prevent tortoises accessing the approximately 2,360 acres of potential habitat on the Reserve between 4,500- and 5,000-foot elevation.</p>

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H.65-112	<p>Increased fragmentation effect of existing roads in Zone 3. Importantly, the DEIS says that the NCH will include "a new at-grade intersection with traffic signals at Cottonwood Springs Road (also known as Old Dump Road or Turkey Farm Road); this connection would fit within the 500-foot ROW." DEIS at 2-5. Placing an intersection at Cottonwood Springs Road would allow vehicle access to busy shopping and business centers in St. George and Washington City. It's important to note that Cottonwood Springs Road is very steep, narrow and windy below its intersection with the proposed NCH. To have this section of the road function as a major artery approximately 1 mile south of the NCH would require straightening and possible widening. In addition, connecting an improved Cottonwood Springs Road with the Northern Corridor would substantially increase the vehicle miles traveled and correspondingly the road effect zone for MDT. The impacts of this project to MDT in Zones 2 and 3 would be substantial and must be evaluated.</p>	<p>The analysis cannot evaluate an assumed and/or unfunded project (i.e., potential straightening of Cottonwood Springs Road). Regardless, Cottonwood Springs Road includes tortoise exclusion fencing. Additional traffic from a proposed Northern Corridor alignment would not increase impacts along Cottonwood Road. If the road is improved in the future, additional environmental analysis would be required at that time.</p> <p>In addition, if a roadway alignment is approved through the Reserve, the County has made a conservation commitment to add crossing structures under Cottonwood Springs Road within Reserve Zone 3 to restore the potential for Mojave desert tortoise movement across this pre-existing barrier. This would be an improvement from the complete barrier that exists now.</p> <p>The Northern Corridor would be a fenced road, which minimizes the road effect and potential loss of tortoises.</p>

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14323-1	<p>The heart of this problem is from the unsupported DEIS premise on fragmentation that supposes all desert tortoises south of this alignment would be impacted by the roadway (Page 3-63, Paragraph 1). This statement and all similar statements and data (including Table 3.5-10 and Table 3.5-11) presented based on this premise should be removed from the DEIS and replaced with more advanced analysis of the impacts of fragmentation.</p>	<p>Each of the alignments located farther south would create increasingly smaller habitat fragments than the T-Bone Mesa Alignment. The size of habitat fragments and edge effects associated with fragmentation are among many factors used to determine the effects to desert tortoises and their habitat from roads and other human development. However, a critical factor in evaluating the effects of linear facilities to desert tortoises and their habitat is the need to maintain larger contiguous blocks of habitat for dispersal, connectivity, and genetic transfer (USFWS 1994). An assessment of larger contiguous blocks of habitat associated with the ROW alternatives has been part of that evaluation. Table 3.5-10 (now Table 3.5-11) identifies blocks of habitat fragmented to the south by each Northern Corridor alternative resulting in larger habitat blocks north of the ROW; fragments to the south are smaller with greater edge effect.</p> <p>A discussion of edge effects is now added to the Affected Environment in Section 3.5.1.1. and in the Environmental Consequences in Section 3.5.2.1.</p>
14818-3	<p>As you know, Mojave desert tortoises are rapidly declining in most of the FWS recovery units, with some populations likely already below the level of viability. Over the past two decades, the Upper Virgin River Recovery Unit tortoise population has declined by at least 24 percent, and tortoises in the supposedly "protected" HCP-established Red Cliffs Desert Reserve have declined by over 40 percent. This pattern of continuing tortoise declines would continue if the county's inadequate draft HCP/ITP is approved, and worsen even more if the destructive Northern Corridor is approved.</p>	<p>The addition of proposed Zone 6 to the Reserve, which would be proposed with a Northern Corridor alignment through Reserve Zone 3, would provide protections to a tortoise population that is not currently managed for conservation. Adding protections to this population would help support the overall tortoise population within the UVRU. Subsequent to publication of the Draft EIS, measures were developed to minimize impacts to the tortoise. Refer to the Plan of Development, the Avoidance and Minimization Measures in Chapter 2, and Appendix D of the Final EIS.</p>

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15149-5	Have other effects on the quality of remaining habitat been addressed, such as the blocking of washes restricting flow to lower elevations, increased human access to areas difficult to access now which will increase pollution, disturbance, possible poaching and other human impacts not related to construction or normal travel of the highway? Has the possible effects on tortoise habitat from utility developments in the right of way been assessed?	<p>Refer to Section 3.11, Water Resources, for a discussion on the presence of ephemeral washes and restricting flow to lower elevations, which is not anticipated. In addition, refer to the Plan of Development, the Avoidance and Minimization Measures in Chapter 2, and Appendix D of the Final EIS for standard stipulations that would avoid and minimize impacts to washes. In relation to Middleton Wash, a bridge would be constructed to allow flow.</p> <p>Refer to the <i>Red Cliffs NCA RMP Amendment Section</i> under the <i>Direct and Indirect Impacts from Alternative 2</i> for a discussion on impacts to tortoises from utility development.</p> <p>No new parking areas or trailheads would be associated with construction of a Northern Corridor. However, a multi-use path would be constructed within the ROW, which would increase access to previously inaccessible areas of tortoise habitat. The multi-use path has potential to increase recreational activities that could be detrimental to the tortoise as well as potentially increase human access to the tortoise, which could result in an increase in poaching. However, the HCP conservation program supports law enforcement, public outreach, and education that would help mitigate potential impacts.</p>
A.25-37	Section 3.5.1.1. Range, Recovery Units, Analytical Units, and Designated Critical Habitat: We find it interesting that the “Far West” area has been determined to be of “poor” condition when it seems little has been done there so far to make that determination. In fact, at the August Habitat Conservation Advisory Committee meeting there was a presentation by Sarah Thomas, Land Program Manager for Conserve Southwest Utah (CSU), about the project that CSU is developing with the Shivwits Band, Dixie State University, and Southern Utah University in coordination with the Red Cliffs Desert Reserve HCP Administration to study that area. At that meeting HCP Administrator Cameron Rognan noted how pleased he	Refer to response to A.05-12 for an explanation of the methodology for the 2020 <i>Biological Report for the Upper Virgin River Recovery Unit population of Mojave desert tortoise</i> . Note: the preliminary “poor” condition rating for the Far West Analytical Unit considers the multiple fires that have burned within the analytical unit as well as the poor condition of the native herbaceous vegetation and shrubs.

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	<p>was that this project was being started since he’s been interested in researching that area for some time. So, how can this DEIS assert that the area’s conditions are poor if it’s not been adequately studied? Also, how does “urbanization” provide a threat in that area? We live in Ivins and the area has a limited build out. Surely, the Shivwits area will not be urbanized. The Far West area has “caliche” and “limestone” areas as does Green Valley and yet gets a poor versus good rating. “Cliffs” in Green Valley certainly don’t seem like a good thing for the MDT and the Far West proximity to Northeastern Mojave Recovery Unit while the Green Valley has “poor connectivity” seems to weigh in favor of Far West but it gets a lower rating. And, surely the threat of “urbanization” is much greater in the Green Valley area than in the Far West area. Also, many of the 11 geographic analytical units get a “moderate” rating when they don’t appear any worse or better than Green Valley or Far West. We are not scientists but we feel that political influence has biased these ratings. Additionally, the Mojave Desert Tortoise Habitat Mapping for the UVRU DEIS section states:</p> <p>“It is expected that Mojave desert tortoise occurs above 4,000 feet in elevation although at lower densities (pers. com. Kellam 2019). Because formal surveys of Mojave desert tortoise are not conducted above 4,000 feet elevation, all data on high-elevation Mojave desert tortoises are based only on incidental observations.”</p> <p>So, it’s conceivable that the Far West higher elevation areas may have tortoise populations yet to be discovered in the CSU/DSU/SUU/HCP research. DEIS does not make it clear what makes the Green Valley area with Zone 6 “good” compared to others given what we’ve noted above. Six features are shown for “specific physical and biological features of Mojave desert tortoise critical habitat.” Of those six, Red Cliffs satisfies four; only forage species and sufficient vegetation for shelter seem lacking due to fires. Although those are significant shortcomings, the area has sufficient space compared to the 6,000+ proposed Zone 6, and the habitat is more “protected from disturbance and human-caused mortality” at this point than Zone 6.</p>	

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A.25-38	<p>However, the DEIS points out that the 2017 Washington County survey was, "...conducted using the USFWS pre-project survey protocol (USFWS 2017) that is only intended to locate individual tortoises and not to derive density estimates." So, we have concerns about a methodology that differs from that used to determine density estimates in Red Cliffs is being used to compare the two areas, and the DEIS clearly points that out as a problem:</p> <p>Therefore, this density estimate is not comparable with other Mojave desert tortoise populations. Additional years of survey data will be needed to validate Mojave desert tortoise density in proposed Zone 6. To use density methodology that's been questioned to help make a determination on whether to approve a highway through prime un-burned Red Cliffs habitat using Zone 6 as mitigation is premature.</p> <p>This "Washington County Tortoise Habitat Suitability Map" from the Habitat Conservation Advisory Committee meeting in August 2020 seems to reveal that although Zone 6 has some "high value" habitat in the northern area of the Zone, colors change as you get to the middle area revealing habitat that's less valuable. And, the map doesn't even show the entire area of Zone 6, so we don't know how much worse the habitat get further down. However, when the 2020 Citizen Science Tortoise Observations map, also provided at the August 2020 HCAC meeting is compared, observations are strong in the lower half of Zone 6. So, all of this just seems to reinforce that more study of Zone 6 is necessary before making big decisions about highways hinging on the value of the area for the MDT.</p>	<p>Subsequent to publishing the Draft EIS, the methodology to estimate density within the Reserve was modified to use kernel density estimates. Refer also to response to A.05-73.</p> <p>Refer also to response to A.05-11 regarding tortoise densities and survey methodologies in proposed Reserve Zone 6.</p>

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A.25-39	<p>During this comment period for the Northern Corridor highway DEIS, HCP renewal, and RMP amendments, the Lake Powell Pipeline DEIS public comment period is also underway. The LPP DEIS references the MDT and its habitat and provides extensive information regarding to environmental protection measures for the species during LPP construction—measures which seem unlikely to be carried out. We find this interesting because both pipeline routes appear to be outside the recovery units for the MDT, which makes us wonder why if there is concern about their location in the LPP route areas. Perhaps this can be explained in the FEIS?</p> <p>With two major projects—the Northern Corridor and the Lake Powell Pipeline—planned in areas that affect this threatened species that is in serious decline, how does this square with the “mandate for all Federal agencies [ESA Section 7(a)(1)]” for the species’ survival and recovery referenced above from the NC DEIS? The cumulative effects of both of these projects must be considered. Although we realize that the current administration has apparently, through a variety of executive orders<sup>1920</sup>, removed the “requirement” that cumulative effects be studied, that does not seem to stop the agency from doing it if they see the need.</p>	<p>Portions of the proposed Lake Powell Pipeline are located within Mojave desert tortoise habitat and the western portion of the project falls within the boundaries of the UVRU. The cumulative impact section (Section 3.28.1.4) has been updated to reflect the Lake Powell Pipeline.</p> <p>Refer also to response to Form 4-20.</p> <p>Subsequent to publication of the Draft EIS, measures were developed to minimize impacts to the tortoise. Refer to the Plan of Development, the Avoidance and Minimization Measures in Chapter 2, and Appendix D of the Final EIS for the list of required conservation measures to offset project-related impacts to the Mojave desert tortoise.</p>
A.25-40	<p>Although “climate change may potentially affect future distribution and habitat use by Mojave desert tortoises” that is an unknown at this time. Currently, all proposed routes through Red Cliffs are in Zone 3 where tortoises would be affected. We should not plan this road based on what-if scenarios. If climate change allows the MDT to use higher elevations in the future that may or may not be a good thing.</p>	<p>The proposed corridors are not designed to accommodate climate change and potential tortoise habitat requirements in the future. The analysis area, however, and area of potential effects was designed to capture all current and reasonably forceable future habitat for the tortoise. Project-related actions would not prevent tortoises accessing the approximately 2,360 acres of potential habitat on the Reserve between 4,500 and 5,000 foot elevation.</p>

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A.25-41	<p>We do not believe that the 1-kilometer-radius buffer is sufficient for determining indirect effects on MDT. The DEIS states, “Over the lifetime of a Mojave desert tortoise, one individual may use more than 1.5 square miles (almost 1,000 acres) of habitat and may occasionally venture more than 7 miles outside of its home range (Berry 1986).”</p>	<p>The 1-kilometer buffer distance <i>for tortoises</i> was inadvertently stated in the assumptions in the Draft EIS. This typo has been corrected in the assumptions.</p> <p>Within the Mojave desert tortoise <i>Life History</i> section of the EIS, discussion included home range sizes and the variability between individuals. Typical movements are short and concentrated in local areas containing one or more burrows. While a greater area may be used over the lifetime of a tortoise, a more localized area is more often the case.</p> <p>The analysis area for the Northern Corridor alternatives included the proposed 500-foot-wide Northern Corridor ROW, a 508-meter buffer extending north from the ROW, and all habitat south of the ROW to the Reserve boundary.</p>
A.25-42	<p>We appreciate that USFWS has decided to use the higher 17.2 MDT per square kilometer figure since that compares better with the 2017 Zone 6 survey number of “overall density of 22.5 tortoises per km<sup>2</sup>” which, according to this DEIS, is based on a questionable survey methodology. The density there may be less than the 22.5 and that needs to be determined through a survey comparable to that done in Zone 3 before any decision to include Zone 6 and assume responsibility and management of that area as part of Red Cliffs is made.</p>	<p>Refer to response to A.25-38.</p>
A.25-44	<p>Rather than “USFWS may determine that measures in addition to those proposed should be included,” USFWS “should determine” that these additional measures shown below be included whether or not any route in Red Cliffs is approved. Because of the importance of Zone 3 and the fact that “Impacts to Zone 3 are likely more substantial than impacts to other areas of the Reserve” these actions should be part of the county’s responsibility:</p> <ul style="list-style-type: none"> <li>• Improving tortoise passage along existing roadways within and outside the Reserve (e.g. Cottonwood Springs Road, State Route 18, and Old Highway 91) through construction of viaducts that increase habitat connectivity within the UVRU.</li> <li>• Habitat restoration projects in Zone 3 or other zones of the Reserve.</li> </ul>	<p>Subsequent to publication of the Draft EIS, measures were developed to minimize impacts to the tortoise. Refer to the Plan of Development, the Avoidance and Minimization Measures in Chapter 2, and Appendix D of the Final EIS. The responsible parties have agreed to implement these measures. Proposed Zone 6 and adjacent associated lands may provide an integral component to support landscape connectivity for the Mojave desert tortoise in the UVRU and with the nearby Northeast Mojave Recovery Unit. Protecting the sub-population of tortoises associated with proposed Zone 6</p>

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	<ul style="list-style-type: none"> <li>• Acquisition of land from willing sellers to provide additional protection of habitat.</li> <li>• Other actions to minimize or mitigate effects on Mojave desert tortoise.</li> </ul> <p>The idea that BLM and USFWS would approve a road that would fragment Red Cliffs—an action that has been made clear by agencies and in this DEIS to be terribly detrimental to the MDT—is without justification in our opinion. At the same time, agencies assert that “connectivity” is important and point to the possible connectivity between Zone 6 and the Northeastern Mojave Recovery Area, which has experienced some positive numbers while those in Red Cliffs have declined. To sacrifice a portion of Red Cliffs by building a highway while “hoping” there will be some positive connectivity between Zone 3 and the NMRA does not make sense to us. Berry Rutherford/Van Dam public comments on Northern Corridor DEIS Sept 2020 Page 66 of 118</p> <p>1986 shows that MDT “may occasionally venture more than 7 miles outside of its home range” but that does not seem far enough to provide the connectivity desired.</p> <p>The DEIS makes it clear that the concept of connectivity between Zone 6 and the NMRA is challenging:</p> <p>Proposed Zone 6 is within the UVRU, which does not directly adjoin any other recovery unit. The Beaver Dam Mountains separate the UVRU from the Northeastern Mojave Recovery Unit. Potential habitat connectivity between the two recovery units is limited to an approximately 0.6-mile-wide area around the north end of the Beaver Dam Mountains west from proposed Zone 6. The USGS (Nussear et al. 2009) also maps potentially suitable Mojave desert tortoise habitat to the south, which connects to the Northeastern Mojave Recovery Unit through the Virgin River Gorge and is limited to an area approximately 2 miles wide following the Virgin River floodplain in Mohave County, Arizona. Proposed Zone 6 may connect to higher elevation habitat on the east slope of the Beaver Dam Mountains and provide linkage to the Northeastern Mojave Recovery Unit. Proposed Zone 6 is also functionally isolated</p> <p>For this and many other reasons, Red Cliffs should not be fragmented in the “hopes” that connectivity will result between Zone 6 and other recovery units. Connectivity needs to remain in Red Cliffs.</p>	<p>provides a source supporting demographic connectivity. Expanding the geographic extent of the Reserve to include an additional tortoise population with habitat protection and potential for landscape-level habitat connectivity would contribute to the conservation of the Mojave desert tortoise in the UVRU by providing some redundancy and connectivity values.</p> <p>Although a tortoise may only travel up a few miles, connectivity across linkages may be multigenerational (known as demographic connectivity). Factors that promote connectivity (ease of movement across the landscape) were brought into consideration during the 2020 <i>USFWS Biological Report for the Upper Virgin Recovery Unit Population of Mojave desert tortoise analysis</i>, as cited in the EIS.</p>

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A.25-57	<p>The DEIS notes that “...where the Northern Corridor ROW would intersect these existing ROWs, the existing authorized uses may require modifications. These modifications may include relocating power poles and powerline alignments to cross the Northern Corridor, or relocation of or burying existing buried utilities deeper to avoid disruption from construction.” Have these modifications been included in the DEIS somewhere and costs been considered? Also, the DEIS states that “any disturbance associated with these relocations is anticipated to occur within the 500-foot-wide potential ROWs analyzed for the Northern Corridor” but saying “anticipated” does not give us assurance. The impacts of these relocations occurring outside the 500-foot-wide potential ROWs must be factored in and analyzed for potential negative effects to MDT and other T/E species.</p>	<p>The modifications that may be needed for utilities include relocating power poles and powerline alignments to cross the Northern Corridor, or relocation of or burying existing buried utilities deeper to avoid disruption from construction. Disturbance associated with relocations would be determined based on the approved ROW alignment and final design features and are therefore “anticipated” and not defined in their entirety. The BLM would review all required relocations to ensure compliance with applicable environmental laws and regulations including NEPA, NHPA, and the ESA. Utility relocations outside the 500-foot-wide ROW would still be within the utility ROW and subject to existing utility protocols established through the HCP. Cost of utility relocations would be a component of the overall project.</p>
A.51-37	<p>11 2-9 Table 2.3-1 Text: “Open to aboveground and buried utilities.” Comment: This phrase pertains to Red Cliffs NCA RMP Amendment Alternative C. For the record, the Council opposes any measures that would facilitate any more development within the Reserve that would not happen but for the Northern Corridor. Would this allow for construction of utility poles along the freeway? If so, our concern is that these poles could be used for raven nests, which could be removed, but that they may also be used to facilitate raven perching that leads to increased predation, which would be more difficult to control (than nests). If utility poles are installed, new raven nesting and perching opportunities should be avoided.</p>	<p>Comment noted. The agency identified preferred alternative for the Red Cliffs NCA RMP Amendment is Alternative B, which would not provide for the ROW to be open to aboveground or buried utilities.</p>
A.51-40	<p>14 2-13 2.4.2.2</p>	<p>The 200 acres of permanently lost habitat would be as a result of Covered Activities within the Reserve on non-Federal lands (e.g., utilities development); this does not include the potential BLM authorization for ROW development for the Northern</p>

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	<p>Text: “Within the Reserve, the amount of Mojave desert tortoise habitat within the Reserve that may be permanently lost to Covered Activities will not exceed 200 acres over the duration of the ITP Term.”</p> <p>Comment: Presumably, the BLM and USFWS biologists know that referring to 200 acres of permanently lost habitat reveals a fraction of the actual impacts; there are also predictable indirect impacts that will result [e.g., dust deposition out to 1 km from ROWs within the Reserve (page 3-11 in Vol 2)]. In fact, the “heat maps” included in the public meeting handout provided by BLM show “habitat fragmentation areas” that substantially affect what appears to be half of the entire Reserve. We note the following statement on page 3-56 of Volume 2 “The area for long-term effects because of fragmentation by the road is variable and extends from each road alternative to the southern boundary of the Reserve.” It is our assertion that it is not ONLY the loss of 200 acres from the Reserve, per se, that is unacceptable, but the long-term, fragmenting indirect effects of the freeway alternatives through the Reserve that are contrary to conservation and recovery of the tortoise, which should be the main function of the Reserve.</p>	<p>Corridor. The 200 acres of take associated with Covered Activities inside the Reserve has not been identified, is the upper cap/limit for such take, and is likely a high estimate of what will actually be drawn upon over the life of the permit. These activities, at the time of implementation, would be subject to effects analysis and compliance with other conservation measures specified in the Amended HCP.</p> <p>The development of the Northern Corridor within the Reserve would result in the permanent loss of between 255 and 340 acres of habitat based on the alternative selected (refer to EIS Table 3.5-11). The issue of the resulting fragmentation is fully acknowledged in the EIS. Each of the alignments located south from the T-Bone Mesa Alignment would create increasingly smaller habitat fragments. The size of habitat fragments and edge effects associated with fragmentation are among many factors used to determine the effects to desert tortoises and their habitat from roads and other human development. However, a critical factor in evaluating the effects of linear facilities to desert tortoises and their habitat is the need to maintain larger contiguous blocks of habitat for dispersal, connectivity, and genetic transfer (USFWS 1994). An assessment of larger contiguous blocks of habitat associated with the ROW alternatives has been part of that evaluation. Table 3.5-11 identifies blocks of habitat fragmented to the south by each Northern Corridor alternative resulting in larger habitat blocks north of the ROW; fragments to the south are smaller with greater edge effect.</p> <p>A discussion of edge effects is now added to the Affected Environment in Section 3.5.1.1. and in the Environmental Consequences in Section 3.5.2.1. Subsequent to publication of the Draft EIS, measures were developed to minimize project-</p>

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		<p>related impacts if the Northern Corridor is constructed within the Reserve. Refer to the Plan of Development, the Avoidance and Minimization Measures in Chapter 2, and Appendix D of the Final EIS. Measures and design features include several large wildlife passage structures designed to allow tortoises to cross to either side of a newly constructed roadway in the Reserve. The crossing structures are intended to facilitate tortoise movements and would reduce the potential effects of fragmentation. If one of the new-build alternatives for the Northern Corridor is chosen, Washington County has also committed to installing tortoise crossing structures in several locations along Cottonwood Springs Road to allow permeability, which would likely enhance connectivity for wildlife populations currently divided by Cottonwood Springs Road.</p> <p>The designation of proposed Zone 6 would expand the function of the Reserve by protecting additional habitat outside the existing Reserve for the benefit of the UVRU. Proposed Zone 6 would create a natural refugia from disease and wildfire, and preserve genetic and behavioral representation through habitat corridors connecting analytical units and recovery units. Proposed Reserve Zone 6 currently supports a density of tortoises at 22.5 animals per square kilometer in surveyed areas. Maintaining connectivity of proposed Reserve Zone 6 to other portions of the Green Valley Analytical Unit and other units is likely important for sustaining landscape-level conservation of Mojave desert tortoise. Proposed Zone 6 and adjacent associated lands may provide an integral component to support landscape connectivity for the Mojave desert tortoise in the UVRU and with the nearby Northeast Mojave Recovery Unit. Protecting the sub-population of tortoises associated with</p>

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		proposed Zone 6 provides a source supporting demographic connectivity.
A.51-49	<p>26 3-47 3-49 3.5.1.1</p> <p>Comment: Whereas the statistics and analyses given on pages 3-47 and 3-49 are very useful, they lack the temporal aspect that compares current tortoise densities within the Reserve with tortoise densities in 1995. Are either actual or extrapolated data available for tortoise densities in the Reserve in 1995 compared to 2020? Our concern is that the HCP as written in 1995 has failed to produce increasing or even stable tortoise populations within the Reserve, that the declines due to drought in 2003 and fires in 2005 could not (and cannot) be curtailed by plan administrators, and that the ill-advised Northern Corridor as planned in Alternatives 2, 3, and 4 would contribute to the instability. Given these analyses and data, we conclude that tortoises are worse off now than in 1995 and that it is incumbent upon the regulatory agencies to increase conservation management, which in no way can accommodate a completely avoidable impact like the Northern Corridor. The data as presented in this section are being ignored if BLM adopts an alternative that allows the Northern Corridor to be developed. Rather, these data should be an indication to both BLM and USFW that the Reserve, itself, regardless of management of Zone 6, warrants heightened conservation management.</p>	Refer to response to H.65-90.

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A.51-53	<p>30 3-55 3.5.2.1 Text: “Surveys conducted in Zone 3 during 2017 resulted in a density estimate of 17.2 Mojave desert tortoises per square kilometer (95 percent confidence interval of 12.6 to 23.4; UDWR 2018). The 2019 surveys of Zone 3 resulted in a density estimate of 12.3 animals per square kilometer (95 percent confidence interval of 8.7 to 17.5; UDWR 2020; refer to Table 3.5-3).” Comment: We are concerned with the ramifications that “All subsequent analyses in Zone 3 uses [sic] the density estimate of 17.2 Mojave desert tortoises per square kilometer.” These data show there has been a reduction of about five tortoises per square kilometer in the two years between 2017 and 2019, which we interpret to mean two things: (1) There have been recent and continuing catastrophic declines within the Reserve that are being dismissed as “statistical” artifacts; and, in our estimation, (2) these declines are likely real, show that current management has failed to avoid the declines, and warrants enhanced protection WITHIN the Reserve, which will not be addressed by creating a noncontiguous satellite reserve in Zone 6. The DEIS has failed to demonstrate that new protections will be implemented within the Reserve to curtail these declines, and by this statistical interpretation, are blatantly dismissing apparent declines that threaten to jeopardize the stability of tortoise populations within the Reserve even in the absence of the Northern Corridor and certainly not addressed by creating the satellite reserve in Zone 6.</p>	<p>Refer also to responses to H.65-90 and A.05-73. Table 3.5-12 has been updated to reflect the estimated abundance of tortoises in each alternative based on kernel density data, indicative of clusters of tortoises.</p>

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A.51-54	<p>31 3-56 3.5.2.1</p> <p>Text: “The analysis area for indirect effects from the Northern Corridor alternatives that do not require construction of a new roadway includes suitable Mojave desert tortoise habitats within 300 feet on either side of the ROW within the Reserve. The analysis area is smaller because ROW fencing on both sides of the highway excludes tortoises from entering the ROW, and tortoises occupying this area have likely been exposed to the wildland-urban interface, including the existing road.”</p> <p>Comment: Please indicate the existing literature that supports this reduced indirect impact associated with fencing. We believe that the two main advantages of fencing roadways are reducing the number of tortoises that would otherwise be crushed and reducing the number of other animals that would be crushed that then serve to attract and subsidize tortoise predators, particularly common ravens and coyotes. There is no evidence in the literature that the following indirect impacts are curtailed by fencing: increased incidence of fire, proliferation of weeds, increased access to poaching (particularly since the BLM is proposing bike and walking paths either side of the freeway), increased nitrogen deposition, etc. For these indirect impacts, we do not believe that the 300-foot area used in this analysis is sufficient or scientifically justified to realistically include all indirect impacts resulting from fence installation.</p>	<p>The 300-foot buffer was applied to existing roadways within the Reserve because tortoise home ranges have already been modified to accommodate an existing road/tortoise exclusion fence. The 300 feet accounts for disturbance from short-term construction activities (e.g., noise, vibration, dust). The number of tortoises indirectly impacted from these activities can be quantified and have been evaluated in the EIS, Tables 3.5-11 and 3.5-12. Other indirect impacts such as increased threat of fire, proliferation of weeds, and increased nitrogen deposition are evaluated on a landscape level because they are pervasive throughout the area. Poaching could be reduced due to fencing by restricting access of tortoises to the multi-use path and roadway areas and restricting access to tortoises. (The multi-use path is already in place along Red Hills Parkway).</p>
A.51-55	<p>32 3-58 3.5.2.1</p> <p>Text: “Recent stabilization of the [tortoise] population may be occurring, though at lower levels than pre-fire conditions.”</p> <p>Comment: We question the veracity of this statement because data given on page 5-55 (see also Attachment B following these tables) statistically show declines of five tortoises/square kilometer between 2017 and 2019, which is in direct conflict with this statement, and demonstrates declining populations, not stabilizing populations.</p>	<p>Refer to response to H.65-90.</p>

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H.65-131	<p>The DEIS fails to demonstrate that designating Zone 6 could enhance or support habitat connectivity between UVRU and the Northeastern Mojave Recovery Unit. First, the DEIS readily admits at 3-64 that the Proposed Zone 6 is isolated and that connections to the Northeastern Mojave Recovery Unit are highly limited. Second, the DEIS fails to explain how fragmentations resulting from the future Western Corridor (project 77 on the map below) that would parallel the western boundary of Zone 6, linking 1-15 to Old Highway 91 and preventing all MDT movement south, west and north of the highway. Zone 6 may not increase habitat connectivity between recovery units because of the barriers noted above and enhanced connectivity cannot be assumed in terms of a conservation “gain.”</p>	<p>Connectivity with regards to proposed Zone 6 has been updated in Section 3.5 of the Final EIS. Refer also to response to A.09-6.</p>
H.65-132	<p>The DEIS does not provide genetic information on the MDT in Zone 6 (presumably unavailable) and hence we cannot tell if they arise from translocated (or unlawfully deposited) MDT or from other parts of the Green Valley Analytical Unit or even from the Northeastern Recovery Unit. What we do know however is that the small size and relative isolation of Zone 6 coupled with a MDT population below 3,000, the figure cited in the DEIS as a minimum necessary population, are distinct impediments to a viable population in the long term.</p>	<p>Text was updated in Final EIS Section 3.5.2.1. Proposed Reserve Zone 6 currently supports a density of tortoises at 22.5 animals per square kilometer in surveyed areas that include a multi-age population structure, implying long-term viability of tortoises in this area. Maintaining connectivity of proposed Reserve Zone 6 to other portions of the Green Valley Analytical Unit and other units is likely important for sustaining Mojave desert tortoise populations throughout the area. Proposed Zone 6 and adjacent associated lands may provide an integral component to support landscape connectivity for the Mojave desert tortoise in the UVRU and with the nearby Northeast Mojave Recovery Unit.</p> <p>As part of continued refinement of the biological report, the reference to 3,000 individuals as a management target has been struck from the EIS.</p>
H.65-141	<p>The proposed NC H will destroy or adversely modify critical habitat in violation of 16 U. S. C. § 1536(a)(2). While the NCH cuts across one portion of the critical habitat within the UVRU, there is a high likelihood that it will be the action that commits the UVRU to a sub-functional condition and precludes MDT recovery.</p>	<p>Refer also to response to H.65-478 regarding adverse modification of critical habitat. Subsequent to publication of the Draft EIS, measures were developed to minimize project-related impacts if the Northern Corridor is constructed within the Reserve. Refer to the Plan of Development, the Avoidance and Minimization</p>

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		<p>Measures in Chapter 2, and Appendix D of the Final EIS. Measures and design features include several large wildlife passage structures designed to allow tortoises to cross to either side of the newly constructed roadway. While intended to facilitate tortoise movements, the crossing structures would reduce the potential effects of fragmentation on other special status wildlife species, as well. If one of the new-build alternatives for the Northern Corridor is chosen, Washington County has also committed to installing tortoise crossing structures in several locations along Cottonwood Springs Road to allow permeability, which would likely enhance connectivity for wildlife populations currently divided by Cottonwood Springs Road.</p> <p>Proposed Zone 6, if incorporated into the Reserve under Alternatives 2, 3, or 4, is within the boundaries of the UVRU as well. Proposed Reserve Zone 6 would represent a large and contiguous block of habitat in Washington County outside the Reserve and would protect the largest known sub-population of tortoises that would otherwise be subject to take under the HCP ITP. Proposed Reserve Zone 6 currently supports a density of tortoises at 22.5 animals per square kilometer in surveyed areas. Maintaining connectivity of proposed Reserve Zone 6 to other portions of the Green Valley Analytical Unit and other units is likely important for sustaining landscape-level conservation of Mojave desert tortoise. Proposed Zone 6 and adjacent associated lands may provide an integral component to support landscape connectivity for the Mojave desert tortoise in the UVRU and with the nearby Northeast Mojave Recovery Unit. Protecting the sub-population of tortoises associated with proposed Zone 6 provides a source supporting demographic connectivity.</p>

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H.65-142	<p>The UVRU is divided into 11 Analytical Units (AU) on the basis of MDT occupation, suitable habitat and connectivity potential to other AUs. AUs are "biologically meaningful subpopulations." USFWS 2020 at 16. The NCH is routed through the southern portion of the West and East Cottonwood AUs within the Red Cliffs NCA and Reserve (both of which were specifically designated to protect the MDT) and would carve up what "may be the most important high-density cluster of desert tortoises in the recovery unit (USFWS 2020a)." DEIS at 3-63, Map 3.5-5 at DEIS Vol. 3, B-53 (excerpted below). These AUs contain almost half of the MDT within the UVRU. Together they are estimated to contain under 2,000 adult MDTs, a number considerably below the minimum population necessary for even a single AU to prevent genetic deterioration over the next 25 to 50 years. USFWS 2020 at 24 and 95<sup>54</sup>, DEIS at 3-35 and 3-48, and USFWS 1994.<sup>55</sup></p>	<p>Within surveyed areas, proposed Reserve Zone 6 currently supports a density of tortoises at 22.5 animals per square kilometers in surveyed areas. Maintaining connectivity of proposed Reserve Zone 6 to other portions of the Green Valley Analytical Unit and other units is likely important for sustaining landscape-level conservation of Mojave desert tortoise. Proposed Zone 6 and adjacent associated lands may provide an integral component to support landscape connectivity for the Mojave desert tortoise in the UVRU and with the nearby Northeast Mojave Recovery Unit. Protecting the sub-population of tortoises associated with proposed Zone 6 provides a source supporting demographic connectivity.</p> <p>Regarding the analytical units, please refer to response to A.05-12.</p>
H.65-143	<p>In sum, the NCH will destroy a vital portion of the MDT critical habitat and population within the UVRU which is already teetering on the edge in regard to its capacity to recovery MDT. By disabling the UVRU as a functional recovery unit, the NCH will preclude recovery across the range. Hence, the NCH will adversely modify critical habitat for the MDT.<sup>56</sup></p>	<p>Refer also to response to H.65-106. The implementation of Alternatives 2, 3, or 4 would result in adverse effects to designated critical habitat for the Mojave desert tortoise. Implementation of required conservation measures outlined in Chapter 2, Appendix D, and UDOT's POD, along with the incorporation of proposed Zone 6 into the Reserve, are intended to support tortoise conservation in the UVRU.</p>

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H.65-144	<p>"Jeopardy" results when it is reasonable to expect that the action would "reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species." 50 C.F.R. § 402.02. For all the reasons outlined above, it is clear that further diminishment of the MDT population and habitat within the UVRU may be the tipping point precluding recovery.</p>	<p>A "jeopardy" determination is made by USFWS when a project would jeopardize the continued existence of a species. This assessment is part of the ESA Section 7 consultation with USFWS, and is based on the project-related impacts to the species as a whole, not just a single population of the species. Species-level impacts to the Mojave desert tortoise, due to direct and indirect effects (including fragmentation) from the development of the Northern Corridor, include non-lethal take of up to 493 adult tortoises (less than 1 percent of all tortoises range-wide), and impacts to up to 3,278 acres of habitat range-wide. Refer to Table 3.5-2. Also refer to response to H.65-106.</p>
H.65-145	<p>The NCH violates the 2011 Recovery Plan The 2011 Recovery Plan is clear that human land uses that degrade and fragment habitat constitute the major threats to the MDT. The MDT requires unfragmented patches of high quality habitat that are sufficiently large to provide for genetic dispersal and stochastic events. "Because desert tortoises occupy large home ranges, the long-term persistence of extensive, unfragmented habitats is essential for the survival of the species. The loss or degradation of these habitats to urbanization, habitat conversion from frequent wildfire, or other landscape-modifying activities place the desert tortoise at increased risk of extirpation." USFWS 2011 at viii. The Recovery Plan emphasizes the importance of designated MDT conservation areas (which includes the Red Cliffs NCA and Reserve) and urges aggressive conservation management within these areas. The plan highlights that given the uncertainties related to climate change on MDT populations and distribution MDT conservation areas must be a foci of recovery efforts. USFWS 2011 at 34-35.</p>	<p>Recovery plans are guidance and not regulatory documents, and no agency or entity is required by the ESA to implement actions in a recovery plan. Conservation actions are needed within the UVRU. Numerous conservation measures outlined in Chapter 2, Appendix D, and the UDOT POD are intended to minimize adverse effects associated with development of the Northern Corridor in Zone 3. The addition of proposed Zone 6 to the Reserve with the designation of a ROW across the Reserve would provide protections to a tortoise population that is not currently managed for conservation. Adding protections to this population would help support the overall tortoise population and improve redundancy and landscape connectivity within the UVRU.</p>

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H.65-146	The DEIS admit that nesting habitat lies 0.2 miles from potential NCH impacts, but fails to analyze how owl foraging habitat could be removed and degraded by construction activities and indirect impacts from such a large construction project, and continuing operations of a highway through Mojave Desert habitats where rodents prey of these owls live.	As identified in Table 3.5-1 in the EIS, the only action analyzed in the EIS that could potentially impact the Mexican spotted owl is the HCP amendment. The Mexican spotted owl nesting habitat identified in the EIS is 0.2 mile from non-Federal land that is potentially suitable habitat for the Mojave desert tortoise, so it is part of the analysis area for the HCP, not the Northern Corridor.
H.65-147	The DEIS excludes Federally Threatened Yellow-billed cuckoo ( <i>Coccyzus americanus</i> ), western distinct population (DEIS at G-4). The EIS needs to analyze this rare bird, which could be indirectly impacted by downstream erosion, fuel spills, and herbicide treatments in its riparian habitat near to the NCH project.	All three new-build alternatives for the Northern Corridor alternatives are over 3 miles from the Virgin River, and it appears to be even farther downstream along the river to where any suitable habitat for this species may be present, based on an analysis of aerial imagery. At this distance, yellow-billed cuckoos would not be directly or indirectly affected by the Northern Corridor.
H.65-148	The Southwestern willow flycatcher is excluded from analysis, yet the Virgin River Critical Habitat segment lies just below St. George. A large new highway project could lead to increased erosion, sedimentation of downstream waters, and pollution by herbicides, hazardous material spills, fuel, and dust palliative chemicals. No mitigation measures are suggested for Southwestern willow flycatcher or Western yellow-billed cuckoo. This is unacceptable.	All three new-build alternatives for the Northern Corridor alternatives are over 3 miles from the Virgin River, and it appears to be even farther downstream along the river to where any suitable habitat for this species may be present, based on an analysis of aerial imagery. At this distance, southwestern willow flycatchers would not be directly or indirectly affected by the Northern Corridor.

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H.65-149	<p>Native fish species seem to be completely dropped out of the analysis in the DEIS, including the Federally Threatened Virgin River chub (<i>Gila seminuda</i>) and Federally Threatened woundfish (<i>Plagopterus argentissimus</i>) (DEIS at G-3). Both have Critical Habitat present. The DEIS at G-3 states:</p> <p>Unlikely to occur. The Virgin River chub is a fully aquatic species. Habitat for the Virgin River chub does not overlap with desert tortoise habitat. However, Virgin River chub critical habitat includes portions of the 100-year floodplain of the Virgin River (USFWS 1995b and 2008), which could be near locations where HCP Covered Activities may occur.</p> <p>Issue:</p> <p>23. The DEIS claims that local zoning and ordinances will be enough to safeguard these two rare fish species (such as DEIS at G-9), yet again fails to consider indirect impacts of highway construction upstream of Critical habitat, including erosion, sedimentation, debris from flash floods, and pollution from fuel soils, chemical leaks, herbicide treatments, and dust palliatives to water quality and habitat substrate. No mitigation measures are proposed or analyzed.</p>	<p>Refer to Section 3.11, Water Resources, of the Final EIS. Stormwater detention would be located within the proposed ROW for each alternative. All three of the Northern Corridor alignment alternatives within the Reserve would result in increased runoff from impervious surfaces, and adjusted flow patterns to accommodate collection and conveyance of additional runoff to detention facilities equipped with outlet devices that trap floatables, oils, and other impurities; this would be used to provide water quality treatment and detain outflow rates to existing conditions.</p> <p>There are no anticipated affects to downstream water resources or riparian habitats from erosion, fuel spills, and herbicide treatments. Therefore, there are no impacts expected to this species or its habitat. Appendix D includes required best management practices, including a Stormwater Prevention Plan that would protect it from erosion.</p> <p>Regarding proposed Zone 6 and the SGFO RMP amendments: water resources would remain unchanged from existing conditions and would be protected in this area from actions that could affect water resources in the future (Section 3.11).</p>

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H.65-150	<p>24. This Section from 3-31 to 3-80 does a detailed analysis of direct and indirect impacts to acres of habitat for special status species among the different Alternatives, such as to Special Status Species such as Gila monster, burrowing owl, kit fox, Arizona toad, and Mojave poppy bee, but fails to analyze how the quality of habitat is not the same in the degraded Zone 6 lands proposed as mitigation habitat in exchange for slashing a highway corridor through a Reserve specifically designed to conserve and protect high-quality habitat for these species. The DEIS did not address how fragmentation would truly be mitigated, nor how the construction of exclusion fences along a highway corridor would be mitigated, other than to suggest degraded Zone 6 lands which have littler, adjacent urbanization, pets such as dogs running into the area, and off-road activities rampant.</p>	<p>As described in Section 3.5, proposed Zone 6 is a popular recreation destination. However, in spite of the heavy levels of recreation in portions of proposed Zone 6, there is still a high-density population of Mojave desert tortoises present in areas that were surveyed. While no known surveys for other special status wildlife species have been conducted in this area, it is suspected that proposed Zone 6 supports a variety of special status wildlife species populations as well. If proposed Zone 6 is designated, measures would be implemented to reduce impacts to these lands, allowing habitat conditions to improve over time.</p> <p>Subsequent to publication of the Draft EIS, measures were developed to minimize project-related impacts if the Northern Corridor is constructed within the Reserve. Refer to the Plan of Development, the Avoidance and Minimization Measures in Chapter 2, and Appendix D of the Final EIS. Measures and design features include several large wildlife passage structures designed to allow tortoises to cross to either side of the newly constructed roadway. While intended to facilitate tortoise movements, the crossing structures would reduce the potential effects of fragmentation on other special status wildlife species as well. If one of the new-build alternatives for the Northern Corridor is chosen, Washington County has also committed to installing tortoise crossing structures in several locations along Cottonwood Springs Road to allow permeability, which would likely enhance connectivity for wildlife populations currently divided by Cottonwood Springs Road.</p>

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H.65-151	The DEIS fails to address our concern about the use of dust palliatives, herbicides, hazardous materials, spills, and other direct impacts to habitats in the Reserve (see our scoping comments at 95).	A Fugitive Dust Control Plan, developed in coordination with the Utah Department of Air Quality, will be required during construction. The plan may include methods such as watering and chemical stabilization, though residual puddling of waters would not be allowed. Refer to required best management practices in Appendix D of the EIS. Refer also to response to H.65-149.
H.65-152	<ul style="list-style-type: none"> <li>• The DEIS fails to analyze impacts to California condor, which we requested in scoping comments at 95. How will roadkill scavenging sources caused by a new highway, and potential microplastic litter impact the California condor? The DEIS, Appendix G-1 states: Potentially present. Nesting and roosting habitat are not present where Habitat Conservation Plan (HCP) Covered Activities are expected, in proposed Zone 6, or in the Red Cliffs National Conservation Area (NCA). Potential foraging habitat is present in the open foothills and grasslands where HCP Covered Activities are expected, in proposed Zone 6, and in the Red Cliffs NCA. The justification for excluding this species from analysis in Chapter 3 is included following this table.</li> <li>• The justification for excluding California condors seem to be based loosely on "density of potential big game prey to attract condors to forage in desert scrub habitats" (DEIS at G-5), while much of the Red Cliffs area is open habitat, especially because of wildfires, and condors commonly scavenge on small mammals, dead reptiles, and other non-big-game sources of food. Again, the DEIS fails to analyze road mortality impacts on condors within this experimental population range.</li> </ul>	As discussed in Appendix G-1 in the EIS, additional justification for excluding condor, beyond that quoted in the comment, is that the Mojave desert tortoise habitat within the analysis area does not provide topography, or wind conditions to attract condors to forage. In addition, condors have not been documented foraging in Mojave desert tortoise habitat.

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H.65-153	We requested the DEIS detail how burrowing owls would be passively translocated out of the reserve if any highway construction occurred (our scoping comments at 96), and the DEIS fails to do so.	Impacts to nesting burrowing owls would be reduced or avoided by design features listed in Appendix D, which include the following stipulations: Where possible, construction activities, including habitat-alteration and noise, would take place outside of Utah’s migratory bird primary nesting season (April 1-July 15). In Utah, the migratory bird nesting season can extend from January 1-August 31 (especially for raptors). Therefore, a pre-construction survey by a qualified biologist (<7 to 10 days prior to when work actually begins on the project sites) would be conducted for nesting birds. The location and timing of migratory bird surveys would be coordinated with the BLM Wildlife Biologist.
H.65-154	The DEIS fails to analyze how kit fox populations elsewhere in the Mojave Desert have suffered disease outbreaks at construction sites, as we requested in coalition scoping comments at 97.	Subsequent to publication of the Draft EIS, measures were developed to minimize project-related impacts if the Northern Corridor is constructed within the Reserve. Refer to the Plan of Development, the Avoidance and Minimization Measures in Chapter 2, and Appendix D of the Final EIS. While measures and design features were mostly focused on avoiding impacts to the Mojave desert tortoise, many of the measures and design features benefit the kit fox as well. In particular, removing trash from the construction site, keeping lids on trash containers, and prohibiting standing water would help prevent disease outbreaks.
H.65-155	The DEIS fails to analyze highway impacts to bats, as we requested in scoping comments at 97.	Bat monitoring is conducted within the Red Cliffs NCA. While numerous species forage in the area, there are no hibernacula or special use areas for bats that have been identified. Therefore, while special status bat species were analyzed in Section 3.5.2.2, it was determined that an analysis of bats in general was not necessary in the General Wildlife analysis.

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H.65-156	The DEIS fails to include a survey and translocation plan for Gila monsters which could be in the path of the proposed NCH, as requested in scoping comments at 98.	Subsequent to publication of the Draft EIS, additional measures were developed to minimize project-related impacts to the Mojave desert tortoise if the Northern Corridor is constructed within the Reserve. Refer to the Plan of Development, the Avoidance and Minimization Measures in Chapter 2, and Appendix D of the Final EIS. While measures and design features were mostly focused on avoiding impacts to the Mojave desert tortoise, many of the measures and design features benefit the Gila monster as well. In particular, impacts to Gila monsters would be reduced or avoided by the following stipulation: A qualified biologist, through coordination with the BLM and USFWS biologists and managers, must perform a clearance survey to verify no threatened or endangered or other sensitive species are affected by the activity. In addition, the tortoise biologist conducting clearance surveys should look for and note any Gila monster observations. Furthermore, the worker environmental awareness training for Northern Corridor construction-related activities would include information regarding the Gila monster.

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H.65-157	The DEIS fails to analyze direct and indirect impacts to Arizona toads, from road mortality, how fencing may not stop road crossing, how flash floods could take exclusion fences down, or how road run-off could create temporary rain pools that actually attract these desert toads. See our scoping comments at 98.	Subsequent to publication of the Draft EIS, measures were developed to minimize project-related impacts if the Northern Corridor is constructed within the Reserve. Refer to the Plan of Development, the Avoidance and Minimization Measures in Chapter 2, and Appendix D of the Final EIS. While measures and design features were mostly focused on avoiding impacts to the Mojave desert tortoise, many of the measures and design features benefit the Arizona toad as well. In particular, prohibiting standing water by project operations would reduce the attractiveness of the construction area to Arizona toads. During construction and operation of the Northern Corridor, tortoise exclusion fencing that would be installed along the ROW edge would preclude adult Arizona toads from accessing the ROW. However, juvenile toads are small enough to get through the mesh and could be injured or killed by traffic on the roadway.
H.65-158	The DEIS completely fails to even mention, let alone analyze impacts to Special Status fish species in the area. We stated in our scoping comment (at 96): Aquatic habitats in Leeds Creek and the Virgin River support populations of BLM sensitive fish species including Virgin spinedace ( <i>Lepidomeda mollispinis</i> ), desert sucker ( <i>Catostomus clarki</i> ), and flannelmouth sucker ( <i>Catostomus latipinnis</i> ). The DEIS should analyze any impacts to these fish species from development of a highway, including erosion, water quality degradation, groundwater pumping, habitat degradation, sedimentation, or other threats. The DEIS fails to do any of this.	Leeds Creek is approximately 8 miles east of the Northern Corridor at the closest point. There is no downstream connection to Leeds Creek from any waterway that crosses the Northern Corridor. Refer also to response to H.65-149.

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H.65-230	MDT have not been documented reliably using culverts in the Red Cliffs NCA or across the range, and the BLM must not trust that culverts will mitigate the habitat fragmentation caused by the NCH.	In addition to culverts, other forms of crossing structures such as bridges or viaducts (including bridge extensions and piers), grade-separated intersections, and pre-cast structures would be considered in the final design, as appropriate. Subsequent to writing of the Draft EIS, measures were developed to minimize impacts to the tortoise. Refer to the Plan of Development, the Avoidance and Minimization Measures in Chapter 2, and Appendix D of the Final EIS. If approved, the roadway design would include passageways across the highway that could be used by Mojave desert tortoise where exclusion fencing has been placed along the highway. Under-road crossing structures are proposed (refer to Appendix D Attachment 2 for design criteria); they would vary in size and be developed in final project design in coordination with the BLM. Passageways would help offset the impacts from fragmentation and would allow tortoises to travel from north to south of the road.
H.65-231	<p>Studies suggest that over its lifetime, a MDT may use more than 3.9 square kilometers (1.5 square miles) of habitat and may make periodic forays of more than 11 kilometers (7 miles) at a time (Berry 1986). This calculation also fails to incorporate the Von Seckendorff Hoff and Marlow 2002 study referenced in the DEIS at 3-35 which found that the zone of impact increased significantly with increasing traffic levels, and populations were found to be depressed from less than 175 meters to up to 4.6 kilometers from a roadway.</p> <p>Conversely, Alternative 5 would indirectly impact 170 acres: 93 north of the ROW and 77 south of the ROW.</p> <p>DEIS at Table 3.5-10.</p> <p>However, this information should be corrected to show that Alternative 5 would indirectly impact only 93 acres because the DEIS shows that widening of Red Hills Parkway for Alternative 5 would only occur between 200 and 900 East (DEIS at 3-168). There are zero acres of MDT habitat south of the ROW at this location as the map below shows (map on page 159):</p>	<p>The Von Seckendorff Hoff and Marlow study refers specifically to <i>unfenced</i> roads. The Northern Corridor would be a fenced road, which greatly reduces potential loss of tortoises. Text was revised in the EIS to clarify the discussion between fenced and unfenced roads.</p> <p>Tables 3.5-10 (now Table 3.5-11) and 3.5-11 (now Table 3.5-12) have been revised to more accurately evaluate indirect impacts from Alternative 5.</p> <p>Because work would only occur within or near the Reserve between 200 and 900 East, the 300-foot buffer was restricted to this area along Red Hills Parkway. The buffer acres now include 11 acres (instead of 170) that are within the Reserve, no acres of fragmentation south of the ROW, and a total of one adult tortoise with indirect impacts.</p>

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H.65-232	<p>Alternative 3 would cause the take of 20 MDT, indirectly impact 185 MDT, and disturb 287 acres of critical habitat causing a 0.61 % loss of critical habitat in the Reserve.</p> <p>DEIS at Table 3.5-11. For discussion of why these estimates of take and indirect impacts are inappropriate, see comments at 3.5 "The DEIS fails to take a hard look at the impacts to MDT critical habitat".</p>	<p>Impact acres to critical habitat by alternative are provided in Table 3.5-12 (formerly Table 3.5-11). Virtually all habitat in Zone 3 is critical habitat, so the effects analysis of impacts to habitat are equal to that of critical habitat.</p>
H.65-291	<p>All alternatives, together with other reasonably foreseeable future land development and transportation projects, would contribute to the incremental loss of habitat important to special status wildlife species in the analysis area. The incremental cumulative impact of roadway improvements associated with Alternatives 5 and 6 would be negligible, but the loss of habitat with Alternatives 2, 3, and 4 could lead to a moderate adverse contribution to the cumulative impacts on special status wildlife.</p> <p>Issue</p> <p>9. We disagree that the effect would be moderate (see von Seckendorff, Hoff and Marlow, 2002)</p> <p>The designation of proposed Zone 6 would result in the beneficial effect of protecting special status wildlife habitat, offsetting and reducing the overall effect of this and other projects, though to varying degrees, the implementation of the proposed project combined with the ground disturbing projects listed in Table 3.28-1 would result in incremental cumulative impacts to special status wildlife within the analysis area.</p> <p>Issue:</p> <p>10. We disagree that this is a significant offset. Much of the habitat is already protected by an ACEC status, and the planned road intrusions and continued allowance of damaging human activities will erode this already questionable area.</p>	<p>The von Seckendorff Hoff and Marlow study refers specifically to <i>unfenced</i> roads. The Northern Corridor would be a fenced road, which greatly reduces potential loss of tortoises.</p> <p>Text was revised in the EIS to clarify the discussion between fenced and unfenced roads.</p> <p>The cumulative effects discussion acknowledges that the proposed project would contribute to incremental increase to adverse effects to special status wildlife. (Note: Table 3.28-1 in the Draft EIS is Table 3.28-2 in the Final EIS.)</p> <p>Text was added to the EIS to clarify the indirect protections afforded the tortoise from the Red Bluff ACEC. Refer to the direct and indirect effects discussion under Alternative 2 in Section 3.5.2.1. In summary, the Red Bluffs ACEC is specifically managed for dwarf bear poppy and erodible saline soils. The addition of funding, personnel, and active management would provide additional protections specific to the tortoise that were not realized previously on the ACEC. Limited protections are already afforded to tortoises on 1,126 acres of BLM-administered lands that are not within the ACEC and changed management on these lands would result in a moderate level of conservation benefit to tortoises present there. Included in proposed Zone 6 are 3,225 acres of SITLA lands that would be subject to development if proposed Zone 6 would not be designated as part of the Reserve.</p> <p>Text was modified to clearly define the conservation benefits of proposed Zone 6.</p>

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H.65-305	<p>As the DEIS correctly states, bisecting the Reserve will destroy and fragment habitat into smaller disconnected segments, inhibiting gene-flow exchange, increase the proliferation of invasive species and resulting wildfire, physically crush tortoises in their burrows and increase temperatures to dangerous levels in the area that would parallel the freeway.</p> <p>DEIS at 3-35, 3-62</p> <p>Yet, the DEIS completely fails to analyze how each of the alternatives would interact with climate change, including creating multiplier effects on existing stressors such as invasive species and fire, and what the direct, indirect and cumulative impacts might be.</p> <p>Failure to conduct this analysis is arbitrary and capricious under the requirements of NEPA and a fatal flaw of the DEIS. The DEIS should have analyzed specific threats to the desert tortoise and other wildlife species and how each of the proposed highway alternatives would interact with those stressors directly, indirectly and on a cumulative basis. Specific stressors the DEIS failed to analyze under a climate change scenario include: effects of habitat fragmentation, proliferation of invasive species, predation, wildfire frequency and intensity, thermal stress, water sources and drought, food source availability and effects on longevity, reproduction and health.</p> <p>Despite the lack of analyses for each of the ROW alternatives, the DEIS acknowledges that the effects of climate change and the growing threat of wildfire exasperates the cumulative effects on the increase of noxious and invasive species, a known threat to the desert tortoise. A logical extension of this certainty and impacts from ROW alternatives would be that to minimize the impacts of climate change on the desert tortoise, Alternatives 5 and 6 would have the least direct, indirect and cumulative impacts.</p>	<p>Additional text has been added to Section 3.5.2.1, Analysis and Assumptions, regarding climate change effects. Also refer to Section 3.28, Cumulative Effects, and Section 3.2 for an analysis on exotic invasive species.</p> <p>The EIS evaluates the most prevalent and relevant threats to the Mojave desert tortoise with regards to the proposed project alternatives; refer to Sections 3.5.1 and 3.5.2 for the discussion.</p> <p>Due to the similarity and geographical closeness of the three proposed ROWs within the Reserve, the effects on climate change within the analysis area for the proposed Northern Corridor ROWs is presumed be the same and not discernible among alternatives. This is true for many of the most prevalent threats to the Mojave desert tortoise. Impacts that can be reliably quantified (i.e., tortoise abundance, suitable habitat, and fragmentation) were used for the evaluation.</p> <p>Dominant threats to the Mojave desert tortoise including invasive species and wildfires (i.e., threats related to climate change) are already immediate threats to the species within the UVRU and are addressed as such. Recognizing that the UVRU is at the extreme northeast edge of the species' distribution, the effects of climate change may be ameliorated, extending the period of time that any demonstrable shift in tortoise populations would occur. Project-related actions would not prevent tortoises accessing the approximately 2,360 acres of potential habitat on the Reserve between 4,500 and 5,000 foot elevation.</p> <p>As discussed in the Section 3.5.2.1 and displayed in Table 3.5-11, Alternatives 1, 5, or 6 would result in much less direct and indirect impacts than Alternatives 2, 3, or 4.</p>

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H.65-306	<p>The DEIS offers just two specific sentences regarding climate change and the NCA ROW, stating:                      "Most documented Mojave desert tortoises in the Reserve are found below 4,000 feet elevation. The approximately 2,360 acres of potential habitat on the Reserve between 4,000- and 5,000-foot elevation would not be restricted by any project- related actions." EA at 3-56</p> <p>The DEIS provides no analysis or proof that this statement is true. The DEIS does not even include an elevation map. More importantly, this claim is not accurate because the T-Bone Mesa, UDOT Application and Southern Alignment alternatives would all create impenetrable barriers inhibiting the migration to higher elevation northern latitudes for some of the most dense desert tortoises populations in the NCA. <sup>75</sup> Only the St. George Boulevard, alternative #6, would not create a new barrier to tortoise migration because it would not be constructed in the NCA. See map in DEIS at B-53. Not only does the DEIS fail to provide a hard look analysis, the one statement the DEIS does make regarding potential migration to potential habitat at a higher elevation is not accurate. Three of the alternatives, would create a major barrier for tortoises, thereby restricting migration as a direct result of project-related actions.</p> <p>Additionally, the DEIS provides no analysis or discussion of: a) whether tortoises could even successfully migrate to the 2,360 acres of potential habitat located between 4,000-5,000 feet elevation, or b) whether that relatively small patch of potential habitat could even support a significant portion of the tortoise population.</p>	<p>Text in the EIS was revised to state: "Project-related actions would not prevent tortoises accessing the approximately 2,360 acres of potential habitat on the Reserve between 4,500- and 5,000-foot elevation." In the EIS, habitat was initially analyzed up to 4,000 feet, consistent with the HCP. Upon further evaluation, it was decided the EIS would not dismiss the existing tortoise population between 4,000 and 4,500 feet because it is possible tortoises are using potential habitat in this elevation range but no surveys have been conducted in these areas to determine occupancy. Making this change led to inconsistencies in the EIS because some of the text that said 4,000 feet had not been updated to 4,500 feet. This has now been corrected. It is possible that tortoises may react to climate change by using habitat at higher elevations. Therefore, while habitat between 4,500 and 5,000 feet was not analyzed in the EIS as currently suitable habitat, it was analyzed in the context of habitat that may become occupied by tortoises in the future.</p> <p>A proposed Northern Corridor ROW within the Reserve would not result in an "impenetrable barrier" to the Mojave desert tortoise. Subsequent to publication of the Draft EIS, measures were developed to minimize impacts to the tortoise. Refer to the Plan of Development, the Avoidance and Minimization Measures in Chapter 2, and Appendix D of the Final EIS; in particular, passageways would be developed along the length of the proposed corridor. To maintain potential connectivity across the proposed Northern Corridor, the USFWS Passage Spacing Guidelines (refer to Appendix D, Attachment 2) recommend passages be spaced approximately one adult home range apart so that tortoises living along the road have access to at least one road passage.</p>

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		Climate change discussion has been updated in Section 3.5.2.1, Analysis Methods and Assumption. Recognizing that the UVRU is at the extreme northeast edge of the species' distribution, the effects of climate change may be ameliorated, extending the period of time that any demonstrable shift in tortoise populations would occur. Project-related actions would not prevent tortoises accessing the approximately 2,360 acres of potential habitat on the Reserve between 4,500- and 5,000-foot elevation.
13761-3	The Draft EIS discloses that the Upper Virgin River Recovery Unit (home to the tortoises in the Red Cliffs) is the smallest, most isolated recovery unit and densities of tortoises there are declining by 3.2 percent per year [3] < <a href="https://conserveswu.org/2020/01/11/issue-5/#_ftn3">https://conserveswu.org/2020/01/11/issue-5/#_ftn3</a> >. *The cumulative impacts of Lake Powell Pipeline on tortoise habitat were not adequately addressed.	The cumulative impact section (Section 3.28.1.4) was updated to reflect the Lake Powell Pipeline and Western Corridor. Refer also to responses to DATA-02 and Form 4-20.
14810-2	Why are the proposed Northern Corridor alternatives located through the highest density habitat? Please include/place the analysis/figure of the high-density polygons in a more prominent place in both the HCP and DEIS document (Map 3.5-5, Mojave Desert Tortoise Relative Density, pg. B-53) and explain why the proposed NC alternatives bisect these polygons?	Several proposed alternatives were initially developed; however, several of the alternatives did not meet the purpose and need of the project and were eliminated from further evaluation. Please refer to Chapter 1, Purpose and Need, and Section 2.7.1, Alternatives Considered but Eliminated from Detailed Analysis.

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A.51-84	<p>59 App B Comment: The Council is particularly concerned that habitat fragmentation associated with three of the six alternatives is severe and fatally flaws all three alternatives because it compromises any conservation that has occurred between 1996 and 2020, and violates the OPLMA and BLM Manual 6260. Interestingly, there are very revealing maps in the BLM’s public meeting handout (see page 18 of 33 in the Power Point presentation distributed in July 2020) that are not included anywhere in the DEIS. Perhaps this is an oversight or these maps were created after release of the DEIS, but in any case these maps need to be added to Appendix B of the Final EIS so the concerned public can see the extent of habitat fragmentation associated with these three alternatives and just how much of the high density tortoise areas (depicted in red) would be affected by all alternatives.</p>	<p>Congress, through OPLMA, provided for certain developments within the NCA. UDOT submitted a ROW application to BLM consistent with the provisions of OPLMA. BLM must follow applicable procedures, including full disclosure and public participation, to consider this ROW application. Refer to response to A.05-1 for a discussion of habitat fragmentation and edge effects. A discussion of edge effects is now added to the Affected Environment in Section 3.5.1.1. and in the Environmental Consequences in Section 3.5.2.1. Refer to Maps 3.5-1 and 3.5-6. Subsequent to publication of the Draft EIS, measures were developed to minimize impacts to the tortoise. Refer to the Plan of Development, the Avoidance and Minimization Measures in Chapter 2, and Appendix D of the Final EIS. In particular, passageways would be developed along the length of the proposed corridor. To maintain potential connectivity across the proposed Northern Corridor, the USFWS Passage Spacing Guidelines (refer to Appendix D, Attachment 2) recommend passages be spaced approximately one adult home range apart so that tortoises living along the road have access to at least one road passage.</p>

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A.51-85	<p>60 3-48 and B-53 3.5.1.1 and App B Text: "...in 2017 Mojave desert tortoise surveys were conducted on 3,000 acres of SITLA and 2,150 acres of BLM-administered land, most of which is included in proposed Zone 6." Comment: With regards to the above statement on page 3-48, none of these data are depicted relative to tortoise densities on Map 3.5-5 in Appendix B. There are other places that refer to tortoise densities in Zone 6 that were unforeseen by the 1995 HCP. In any case, we ask that Map 3.5-5 be amended (or better yet, a new map developed) to reflect tortoise densities in Zone 6 so that the concerned public can see what is being lost (i.e., red zones inside the actual Reserve) compared to what is being "gained" (i.e., tortoise densities inside the proposed satellite reserve). Although the resolution is too small to be meaningful, we note that Figure 3 in the Amended HCP (page 27) shows that all of Zone 6 is characterized by "Low Density MDT Habitats." Absent these data, we do not believe that the agencies can demonstrate that establishing Zone 6 as a new reserve will offset the losses in the actual Reserve from development of the Northern Corridor or the take of tortoises throughout Washington County.</p>	<p>Figure 3 in the Amended HCP shows density estimates displayed in the 1995 HCP. This was prior to the discovery that the area now referenced as proposed Reserve Zone 6 supports a density of tortoises at 22.5 animals per square kilometer (within surveyed areas) in its current condition. Section 3.5.2.1 text has been revised to indicate the survey methods conducted in proposed Zone 6 as equivalent in methodology and the 22.5 tortoises/square kilometer as a realistic abundance for surveyed areas within proposed Zone 6. Refer to response to A.05-11 for more information regarding surveys and tortoise densities in proposed Reserve Zone 6.</p> <p>Subsequent to publishing the Draft EIS, the methodology to estimate density within the Reserve was modified to use kernel density estimates. USFWS recently developed an estimate for tortoise abundance within Zone 3 of the Reserve based on UDWR long-term monitoring data that showed that desert tortoises are not evenly distributed on the landscape. The Final EIS has been updated in Section 3.5.2.1 to incorporate this information. Table 3.5-12 has been updated to reflect the estimated abundance of tortoises in each alternative based on kernel density data, indicative of clusters of tortoises.</p> <p>Proposed Zone 6 only has 1 year of data to evaluate, so kernel density analysis is not yet appropriate. Because Zone 3 tortoise densities are evaluated using kernel density and proposed Reserve Zone 6 is not, there cannot be a direct comparison of the two using a figure such as Map 3.5-1 or 3.5-6.</p>

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H.65-444	Tortoise Survey Data Sources Conflict of Interest: BLM must disclose whether it used or relied upon any data generated by consulting firms that may have a financial or other potential conflict of interest in terms of past, current, or possible future contracts involving any aspect of the proposed Northern Corridor Highway. Addressed in the DEIS: No.	<p>Data used within the EIS were predominantly sourced from the UDWR and other County, State, or Federal agencies. Kernel density estimates, as updated in the Final EIS, for Mojave desert tortoise density within the proposed Northern Corridor ROWs was sourced from the UDWR survey data. Proposed Zone 6 survey data was sourced from Washington County’s survey efforts, and general information about proposed Zone 6 populations were supplemented by local community science collection. Other special status wildlife location data were sourced from the Utah Natural Heritage Program database. Datasets, including vegetation communities and previous wildfires were sourced by LANDFIRE, BLM, and the Utah Automated Geographic Reference Center. None of the above data were collected by consulting firms. Biological data collected by the consulting team (i.e., Jacobs and SWCA) for the EIS included the 2018 protocol surveys of the UDOT alignment, 2020 AIM vegetation plots, and 2020 burrow surveys, none of which were directly used for impact analysis in the EIS.</p> <p>UDOT may issue a Request for Proposal for future work associated with the Northern Corridor project and award through a competitive bid. Potential contracting processes for future phases of the project if an action alternative is selected are outside the scope of this EIS.</p>

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H.65-471	2- The DEIS must address direct, indirect, cumulative, and residual NCH impacts to all BLM sensitive species, including fish, raptors, migratory birds and birds of conservation concern, mammals, reptiles and amphibians. (98). Addressed in the DEIS: Partially, but not all species or their impact analyses are provided.	All BLM-listed sensitive wildlife species that are known to occur on BLM-administered lands within the Area of Effect are incorporated and analyzed in the EIS. Wildlife that are only designated as sensitive by the BLM (i.e., not Federally listed) have no regulatory protections outside of BLM's jurisdiction (e.g., private, State, Tribal, and non-BLM Federal lands). The HCP area does not include BLM-administered lands; therefore, the analysis of BLM sensitive species is included as general wildlife within the HCP analysis area.
H.65-474	1- Independent Tortoise Survey: BLM must complete independent research and gather information on the density of the threatened Mojave desert tortoise population in Zone 6 since no adequate information exists. The existing survey results are not accepted by all members of the scientific community. Addressed in the DEIS: No. The DEIS states that USFWS pre-project survey protocols were used to estimate the abundance of 22.5 tortoise/km2 in Zone 6, and that this protocol, "is only intended to locate individual tortoises and not to derive density estimates. Therefore, this density estimate is not comparable with other Mojave desert tortoise populations. Additional years of survey data will be needed to validate Mojave desert tortoise density in proposed Zone 6." The DEIS failed to use independent research to gather accurate data on the density of MDT in Zone 6. The mitigation value of Zone 6 cannot be determined without accurate data.	There is no requirement that independent research must be done. The standard is the best available science must be used. After further consideration of techniques employed in the 2017 surveys, density estimates derived in 2017 are applicable for the surveyed areas in proposed Zone 6. Refer to response to A.05-11 for more information regarding surveys and tortoise densities in proposed Reserve Zone 6.

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H.65-475	<p>2- Impact Analysis and Use of best available science: The BLM and USFWS must use the best available science when analyzing direct, indirect, cumulative and residual impacts to the threatened Mojave desert tortoise. Addressed in the DEIS: Not adequately addressed. The DEIS failed to share the tools used by USFWS to assist in evaluating the impacts of the BLM decisions and the proposed conservation measures to replace the resources potentially impacted by the ROW and RMP revisions. The DEIS references, but fails to provide to the public three tools that are critical to understanding NCH impacts to the threatened Mojave desert tortoise: the draft biological report, resource equivalency analysis, and spatial decision support model. Since these documents weren't made available to the public, it's impossible to gauge whether the best available science was used.</p>	<ul style="list-style-type: none"> <li>• Draft Biological Report – Refer to response to A.05-12; in addition, this report was provided to the commenter upon request (refer to Comment H.65-91).</li> <li>• Resource Equivalency Analysis – Refer to response to A.05-13.</li> <li>• Spatial decision support model – is a system developed by the USFWS Desert Tortoise Recovery Office and University of Redlands that estimates impacts of threats to the Mojave desert tortoise. This model was not applied to the Northern Corridor project.</li> </ul>
H.65-476	<p>3- CutTent Modeling Data and Analysis: Incorporate the Defenders of Wildlife study's applications and findings into the Draft Environmental Impact Statement and utilize the information in the analysis of the environmental impact of the alternatives. Addressed in the DEIS: No. The DEIS failed to incorporate the Defenders of Wildlife "Protecting the Mojave Desert Tortoise: A Model Approach-New habitat, connectivity and disturbance models for conserving a threatened species" Study or applications in their analysis.</p>	<p>The Defenders of Wildlife model had been considered for use in the EIS, but it was determined that the peer-reviewed U.S. Geological Survey model (with adjustments to address anthropomorphic changes to the landscape) provided the best representation for the UVRU.</p>
H.65-477	<p>4- "Take" Disclosure: Disclose the full amount of Mojave desert tortoise take (direct, indirect, cumulative and residual) that would be caused by the construction and operation of the NCH (independent from Zone 6 mitigation calculations) Addressed in the DEIS: Not adequately addressed. The DEIS failed to disclose the full amount of MDT take that would be caused by the NCH because it used poor information to calculate direct and indirect impacts when better information was available (see 3.5 Special Status Wildlife) and it failed to assess the full cumulative impacts because of an inappropriately short planning horizon (see 3.28 Cumulative Effects).</p>	<p>The best and most representative data were used for analysis of impacts from the Northern Corridor. Subsequent to publication of the Draft EIS, the cumulative effects planning horizon was changed from 15 to 20 years to 20 to 25 years. As a result, additional projects were added to Table 3.28-2, Reasonably Foreseeable Future Projects or Actions. Analysis in Section 3.28.5, Special Status Wildlife, was updated as well. Table 3.5-12 provides an accounting of potential take of Mojave desert tortoise under each alternative.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-478	<p>5- Critical Habitat Modification Disclosure: Disclose the full amount (acreage) of adverse modification of designated critical habitats for the threatened Mojave desert tortoise. Addressed in the DEIS: Not adequately addressed. The DEIS failed to disclose the full amount of adverse modification of critical habitat for the threatened MDT because it based indirect impacts on the size of an adult male MDT's annual home range (508 meters) when studies show that roadways depress tortoise populations from 2,150 meters to 4.6 kilometers from the road.</p>	<p>The von Seckendorff Hoff and Marlow study refers specifically to <i>unfenced</i> roads. The Northern Corridor would be a fenced road, which minimizes the road effect and potential loss of tortoises. Impact acres to critical habitat by alternative are provided in Table 3.5-12.</p> <p>The assessment of adverse modification of critical habitat is part of the ESA Section 7 consultation and would be determined by USFWS. This determination is based on project-related impacts in relation to the range-wide designation of critical habitat as a whole. The Northern Corridor may impact up to 3,278 acres of critical habitat. Though this project would result in adverse effects to critical habitat it would not result in adverse modification of Mojave desert tortoise.</p>
H.65-479	<p>6- Road Effect: BLM's DEIS must fully disclose the direct, indirect and cumulative impacts of construction and siting of the NCH, together with the overlapping impacts of wildfires, on known tortoise densities. Please superimpose the location of the proposed NCH relative to the wildfire footprint, existing tortoise densities, habitats to the north that are not deemed suitable for tortoises, etc. so that we can see the full extent and juxtaposition of the proposed NCH to these sustained and impacted tortoise densities. Addressed in the DEIS: No. The DEIS failed to create maps that show the relationship between NCH alternatives, wildfire history and tortoise density. The DEIS also failed to adequately discuss the relationship between the proposed NCH and future wildfires because it erroneously said that roads act as firebreaks and did not discuss how roads provide ignition sources for wildfires.</p>	<p>Map 3.5-1 has been added to the document. The Map includes the wildfire footprint, kernel density mapping, and all the alternatives superimposed. The addition of more data (i.e., suitable habitat) would make the map illegible so it was excluded.</p> <p>The EIS includes both statements:</p> <ul style="list-style-type: none"> <li>• Roads may function as a fuel break that slows or stops the spread of fire.</li> <li>• Roads can be a direct source of fire ignition.</li> </ul>

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H.65-480	<p>?-Direct Impacts to Tortoise: a. Direct mortality during and following construction, including entombment and entrapment of tortoises and road kills b. Introducing construction activities into a dedicated Reserve area c. Creating habitat fragmentation; d. Resulting in habitat loss, surface disturbance and direct loss of shelter, breeding and nesting sites e. Impairing the efficacy of an already minimally-sized reserve and adversely affecting the tortoise population; f. Degrading habitats that would not otherwise be disturbed; g. Resulting in the spread of exotic and invasive plant species; h. Increasing the risk of fire, which has already decimated tortoise populations in the Reserve; i. Increasing the predation of tortoises by common ravens and coyotes; j. Possibly promoting disease and impairing tortoise health by introducing chemicals and toxicants associated with vehicles; and k. Increasing access to reserve areas that could result in poaching and vandalism of tortoises. Addressed in the DEIS: Not adequately addressed. The DEIS addressed most of these direct impacts to MDT, but failed to adequately discuss the relationship between the proposed NCH and increased risk of wildfire in the Red Cliffs NCA.</p>	<p>The threat of fire from the Northern Corridor to the Mojave desert tortoise in the Red Cliffs NCA is discussed in Sections 3.5.1.1 and 3.5.2.1 of the EIS. In addition to the information in Section 3.5, the following provides further discussion of the threat of fire due to implementation of the Northern Corridor. Human-caused wildfires are known to be strongly correlated to roads (Fusco et al. 2016). Roads serve as vectors of wildland fire by enabling accessibility to areas that would otherwise be inaccessible to people. Examples of human-caused fires directly related to use of roads by vehicles include sparks from tow chains, collisions, and tire blowouts. Indirect effects of roads include wildfires started by discarded cigarettes, illegal campfires, and fireworks. Recent fires that occurred in the Red Cliffs NCA in 2020 were caused by fireworks and a tire blowout.</p>

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H.65-481	<p>8- Indirect Impacts to Tortoise: BLM and USFWS should evaluate the effects of the following indirect impacts associated with the Northern Corridor Highway and consider whether these indirect impacts would jeopardize the continued survival of the threatened Mojave desert tortoise in Zone 3 and in the larger Red Cliffs Desert Reserve and Upper Virgin River Recovery Unit: a. Human access b. Garbage and litter c. Choking related to ingestion of litter d. Ravens, predators and subsidized predator populations via road kills, discarded food items, and above-ground utilities (which may provide raven perch sites) e. Increased risk of poaching, harassment, killing f. Increased risk of dogs off leash g. Catastrophic wildfires caused by introducing vehicle traffic into a dedicated Reserve. Tossing of cigarettes, dragging tow chains, vehicle collisions, etc. should be considered. h. Toxicants i. Sound and light pollution j. Invasive plants and habitat shift k. Loss of native plants, including those necessary for maintaining PEP (potassium excretion potential) balance l. Fire m. Altered hydrology, including but not limited to: changes to storm water run-off and increased potential for localized flooding of tortoise habitat, drowning of tortoises in burrows, and/or increased soil erosion that would diminish habitat quality in the Road Effect Zone. Addressed in the DEIS: Not adequately addressed. The DEIS addressed many of these indirect impacts to MDT, but failed to adequately discuss how these threats, in conjunction with the NCH, could jeopardize the continued survival of the MDT in Red Cliffs. The DEIS also failed to adequately address the relationship between the proposed NCH and landscape-level changes including wildfire, altered hydrology, and invasive plants and habitat shift.</p>	<p>The EIS evaluates the most prevalent and relevant threats to the Mojave desert tortoise with regards to the proposed project alternatives. Refer to Section 3.5.1 and 3.5.2 for the discussion.</p> <p>Subsequent to publication of the Draft EIS, measures were developed to minimize impacts to the tortoise. Refer to the Plan of Development, the Avoidance and Minimization Measures in Chapter 2, and Appendix D of the Final EIS.</p>

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H.65-482	<p>9- General: BLM and USFWS must take a hard look at the impacts (direct, indirect, cumulative and residual) of the alternatives on desert tortoise. The agencies must calculate the actual mitigation value of Zone 6 and objectively compare it to the actual NCH's adverse impacts in Zone 3. Addressed in the DEIS: Not adequately addressed. The DEIS failed to take a hard look at indirect and cumulative impacts of NCH alternatives on the MDT (see above). The DEIS failed to objectively calculate the mitigation value of Zone 6 because it did not rely on accurate data on the density of MDT in Zone 6. The mitigation value of Zone 6 cannot be determined without accurate data.</p>	<p>The cumulative effects discussion determines the implementation of the proposed project combined with the ground-disturbing projects listed in Table 3.28-2 would result in incremental cumulative impacts to special status wildlife within the analysis area. The combination of the Proposed Actions (HCP, Zone 6, and ROW) contribute to positive and adverse cumulative effects to Mojave desert tortoise. The USFWS will consider these cumulative actions in their jeopardy analysis under the ESA. Subsequent to publication of the Draft EIS, the cumulative effects planning horizon was changed from 15 to 20 years to 20 to 25 years. As a result, additional projects were added to Table 3.28-2, Reasonably Foreseeable Future Projects or Actions. Analysis in Section 3.28.5, Special Status Wildlife, was updated as well. Refer also to response to A.21-11.</p>
H.65-483	<p>10- Cumulative Impacts: BLM and USFWS must analyze cumulative impacts associated with the NCH and consider whether these cumulative impacts would jeopardize the continued survival of the threatened Mojave desert tortoise in the Red Cliffs Desert Reserve/NCA and the large Upper Virgin River Recovery Unit (UVVRU). Additionally, if the UVVRU is compromised, what would be the impact on the species' range-wide recovery? a. Habitat loss, alteration, degradation and fragmentation; b. Increased genetic isolation; c. Loss of genetic diversity; d. Extirpation; e. Small population and stochastic effects; f. Restricted home range g. Fence pacing; h. Loss of shelter, breeding and nesting sites; i. Effects of freeway contaminants (applicable to all wildlife); j. The failure of translocation to mitigate cumulative effects, given that the practice has not proven successful in much of the tortoises' range; k. Value of contiguous habitat as it relates to climate change and the needs of TSD (Temperature Dependent Sex Determination) reptiles for contiguous, connected habitat. Addressed in the DEIS: Not adequately addressed. The DEIS addresses many of the cumulative impacts listed above but fails to adequately address fence pacing, the failure of trans location, and the value of contiguous habitat for TSD reptiles. The DEIS also fails to</p>	<p>The USFWS will consider these cumulative actions in their jeopardy analysis under the ESA. Within Section 3.5.1.1, Range, Recovery Units, Analytical Units, and Designated Critical Habitat, discussion of impacts to critical habitat are included. Designated critical habitat within the UVRRU totals 54,600 acres, which is less than 1.0 percent of the total acreage of designated critical habitat for the tortoise range-wide. The Southern Alignment would result in the greater loss of critical habitat than the other alternatives with approximately 0.73 percent (340 acres) loss of critical habitat within the Reserve. Subsequent to publication of the Draft EIS, measures were developed to minimize impacts to the tortoise. Refer to the Plan of Development, the Avoidance and Minimization Measures in Chapter 2, and Appendix D of the Final EIS. Measures require all tortoises within the ROW (which is to be fenced</p>

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	adequately discuss the impact the NCH might have on MDT survival in the UVRU and range wide. See comments at 3.28 Cumulative Effects for additional discussion.	<p>with tortoise exclusion fencing) to be translocated a short distance out of harm’s way, thereby avoiding or minimizing any tortoise mortality. Long-distance translocation would not occur. Surveys of translocated tortoises within Zone 4 of the Reserve have “established a persistent population as long-term trends (2003 to 2019) indicate a positive trend in desert tortoise abundance and density” (UDWR 2020). Numerous under-road crossing structures would be included for any of the project alternatives in the Reserve, thereby reducing the effects of fence pacing and fragmentation. During construction, shade structures would be installed and maintained to provide thermal cover for tortoises along exclusion fencing.</p> <p>Proposed Reserve Zone 6 would represent a large and contiguous block of habitat in Washington County outside the Reserve and would protect the largest known sub-population of tortoises that would otherwise be subject to take under the HCP ITP. Proposed Reserve Zone 6 currently supports a density of tortoises at 22.5 animals per square kilometer in surveyed areas. Maintaining connectivity of proposed Reserve Zone 6 to other portions of the Green Valley Analytical Unit and other units is likely important for sustaining landscape-level conservation of Mojave desert tortoise. Zone 6 and adjacent associated lands may provide an integral component to support landscape connectivity for the Mojave desert tortoise in the UVRU and with the nearby Northeast Mojave Recovery Unit. Protecting the sub-population of tortoises associated with Zone 6 provides a source supporting demographic connectivity.</p>

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H.65-488	<p>15- The DEIS should disclose and analyze what NEPA compliance may be needed for raven or other predator control measures to reduce tortoise mortality, and the relative timeliness and priority of completing that NEPA in light of other workload priorities. We believe that the protection and recovery of the ESA listed tortoise and other special status species and the completion of any associated required NEPA compliance should be a very high priority and not put "on the back burner" when BLM is faced with other proposed actions, especially those that arguably conflict with the ESA, HCP, and Red Cliffs NCA Plan. Addressed in the DEIS: Not adequately addressed. The DEIS fails to address NEPA compliance for raven and other predator control measures. The DEIS fails to discuss prioritizing actions that benefit conservation of the MDT.</p>	<p>The SGFO RMP includes measures to address raven predation; refer to Table 2.5-1 of Chapter 2 of the EIS. The No Action Alternative for the SGFO RMP Amendment would make no changes to the existing RMP. The current RMP includes the following: In collaboration with affected State and Federal agencies, predator control in either area may be allowed using techniques designed to control target species only. This will reduce the loss of hatchlings and juvenile tortoises to predators such as coyotes and ravens.</p> <p>Both Alternatives B and C of the SGFO RMP Amendment state that if other management actions have not been successful in reducing documented predation levels that have been shown to be measurably impacting the recovery of viable Mojave desert tortoise populations, a targeted species-specific predator control plan would be developed. The plan would designate specific goals to be met and evaluate the least invasive and most ecologically sensitive methods to accomplish those goals.</p>

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Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-492	I- The DEIS must address NCH impacts to special status plant species, BLM sensitive plant species, and pollinators including, but not limited, to bees. Addressed in the DEIS: No.	Please refer to Section 3.3 of the EIS for impact analysis on special status plants. In summary, there would be no direct or indirect impacts to Federally listed plants because there is no habitat within or adjacent to the ROWs. There may be indirect impacts (dust deposition) on occupied habitat for the BLM Sensitive Virgin Thistle, as discussed in Section 3.3.2 of the EIS. However, as described in Appendix D, a Fugitive Dust Control Plan would be created to help minimize impacts from fugitive dust during construction, which would reduce dust impacts to pollinators and general vegetation adjacent to the proposed ROWs. Please refer to Section 3.5 of the EIS for an impact analysis on special status invertebrates (i.e., potential pollinators).
H.65-493	1-The DEIS must address direct, indirect, cumulative, and residual NCH impacts to all special status fish species, including Woundfin Minnow and Virgin River Chub. Addressed in the DEIS: No	Appendix G addresses why woundfin and Virgin River chub do not warrant further analysis.
H.65-560	I-Impacts to Scientific Research: The DEIS must address NCH related impacts to the legacy of Mojave desert tortoise research inside Red Cliffs NCA/DR and to opportunities for future research. Addressed in the DEIS: No.	Numerous years of research have been conducted within the Red Cliffs NCA/Reserve, and this work is expected to continue. If implemented, a ROW within the Reserve may provide opportunities for additional research that could be conducted to study the impacts of roads, passageways, and fragmentation on a tortoise population that has a strong foundation of existing population data.

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H.65-625	<p>The DEIS must address the following issues with long-standing land uses in Zone 6 that would not contribute to the protection or recovery of the threatened Mojave desert tortoise: (127-128) a. Target shooting is pervasive across Zone 6. Members of these organizations have documented bullet casings outside tortoise burrows in Zone 6 and have had live rounds pass over their heads while walking in Zone 6. Target shooting in Zone 6 is a danger to recreators and wildlife. The DEIS should include a detailed plan of community outreach and law enforcement for curtailing target shooting in Zone 6. Additional Law Enforcement officers would need to be hired. b. Illegal dumping. Since 2018, 3 major clean-ups on SITLA lands in Zone 6 have been organized by Washington County's Give Your Land a Hand group. Each time, a 50-yard dumpster has been filled to the brim with appliances, target shooting trash, debris, and general trash. These major clean-ups have barely made a dent in the pervasive illegal dumping problem in Zone 6. c. Pallet burning, bonfires, and pervasive campfire rings d. Long-term residences and permanent trailer camping e. Widespread, off-trail OHV, ATV, dirt bike, and vehicle use. The DEIS should reveal the total number of miles of motorized routes and illegal social trails. See BLM graphic below. f. The DEIS should provide mapping that overlays the road and route map below with tortoise observations and sign. g. The DEIS should analyze the impacts to tortoise health and physiology related to high levels of sound and vibration recreation uses like OHV, A TV, and competitive sporting events. Addressed in DEIS: Partial</p>	<p>Section 3.5.2.1, Direct and Indirect Impacts from Alternative 1 (No Action Alternative), has been updated to reflect existing conditions that would not contribute to the protection or recovery of the tortoise.</p> <p>Refer to Map 13.5-2 for a visual on the existing trails within proposed Zone 6. Refer to Section 3.17, BLM Transportation and Travel Management, for information on social trails within proposed Zone 6. There are limited studies available showing the impacts on tortoise health and physiology related to high levels of sound and vibration. The potential for effects from noise and vibration is acknowledged in the EIS.</p>
H.65-630	<p>3- DiVario Development: The DEIS must analyze the direct, indirect and cumulative impacts of adjacent developments like Di Vario on the tortoise, including the risk of increased habitat disturbance from greater local recreational pressures, predator subsidies from nearby trash, outside pet food, and artificial water sources, poaching, and predation of tortoises by pets. Addressed in DEIS: No</p>	<p>The DiVario Development is included in the Cumulative Impact Analysis in Section 3.28 of the EIS. The proposed project, in conjunction with all the projects outlined in Table 3.28-2, would contribute to adverse cumulative effects to the Mojave desert tortoise.</p>

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H.85-1	<p>Environmental: The NCH will decimate the desert tortoise population. From personal experience, there is no way anyone can retrieve every single tortoise that is in the path of the NCH. I run and hike this area consistently from downtown St. George where I live. From spring to early summer of 2020, I saw a tortoise every single day in different areas near and around the T-Bone trail system. Every single day! I saw ancient ones, middle-aged, adolescent, and baby tortoises. They thrive behind Pioneer Hills! I have evidence; just look at the photos I took at the end of this letter.</p>	<p>Subsequent to publication of the Draft EIS, measures were developed to minimize impacts to the tortoise. Refer to the Plan of Development, the Avoidance and Minimization Measures in Chapter 2, and Appendix D of the Final EIS. There are several measures specifically designed to protect the Mojave desert tortoise during and after construction, including but not limited to the following: pre-project distribution surveys, pre-construction clearance surveys, regular biological monitoring by a certified desert tortoise biologist, fence-line checks, short-distance translocation outside of the ROW during construction, exclusion fencing, shade structures, and construction of under-road crossings. It is acknowledged in the EIS that during clearance surveys it is likely that all individual tortoises may not be located for translocation and could unknowingly be killed.</p>
H.86-10	<p>Chapter 3 (general comment regarding MDT Habitat) The definition of the Mojave Desert Tortoise Analysis Area suggests that elevations up to 5,000 feet should be included due to the potential for "future habitat expansion." However, the Draft EIS does not provide a basis for assuming that MDT habitat is reasonably certain to expand to this elevation in the future, let alone in the foreseeable future. The Draft EIS should be revised to limit the Mojave Desert Tortoise Analysis Area to elevations at or below 4,000 feet, or the Draft EIS must provide more data and scientific literature to support the assumption that the MDT will expand habitat to 5,000 feet during the current planning process.</p>	<p>Refer to response to A.05-75.</p>

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H.86-18	<p>Chapter 3.5.2.1, p 3-56 The BLM here references the need for distance guidelines of 508 meters on either side of the ROW but then includes an analysis area for indirect effects from the Northern Corridor alternatives that do not require construction of a new roadway includes suitable Mojave Desert tortoise habitats within 300 feet on either side of the ROW within the Reserve. The Final EIS should provide an explanation of why different distances are used to establish the zone of indirect or direct effects for different types of development activities. While there is some description of the relevancy of the different distances to the biology of the MDT (except for the 300 ft distance used for the non-Reserve Northern Corridor routes), the discussion lacks a rationale for why the different distances are appropriate. The BLM may also want to select one unit of measurement throughout the Final EIS instead of using meters and feet interchangeably throughout the document.</p>	<p>As described in the analysis assumptions, the Northern Corridor's Alternative's 5 and 6 analysis areas for indirect effects only extends out 300 feet from the existing road's ROW (i.e., Red Hills Parkway or St. George Boulevard/100 South One-way Couplet). The 300-foot buffer was applied to existing roadways within the Reserve because tortoise home ranges have already been modified to accommodate an existing road/tortoise exclusion fence. The 300 feet accounts for disturbance from short-term construction activities (e.g., noise, vibration, dust). The analysis area is smaller for Alternative 5 because the area does not include nor is directly adjacent to tortoise habitat. In addition, the existing roads would only be widened, thus substantially reducing the amount of ground disturbance within the ROW. Tortoises occupying the area adjacent to the Red Hills Parkway have likely been exposed to the wildland-urban interface, including the existing road.</p> <p>The document tried to stay consistent with units of measurement; however, various guidelines and best management practices have been developed over time with varying units of measurement. To report these areas or distances, the unit that they were introduced/discussed in the literature was used. For example, ROWs are typically given in feet, while home range for a tortoise is given in meters.</p>

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H.86-19	<p>Proposed Additional Appendix: Current and Past MDT Management Agreements The BLM may want to include as one of the appendices all current and prior agreements and commitments for management of MDT in Washington County. In the DEIS, the BLM and the USFWS does not incorporate or provide any information on the executed agreements for these acquisitions of lands or any of the prior Agreements between the State and the USFWS, or the General References to MDT Management in Zone 6.</p>	<p>The U.S. Department of the Interior strongly suggests brevity in EIS documents and discourages the attachment of extraneous information. Previous and current implementation agreements regarding Mojave desert tortoise within Washington County are readily available online and have not been appended to the EIS.</p> <p>Subsequent to the Draft EIS, conservation measures and agency commitments related to the proposed project have been updated and are included in Chapter 2 and Appendix D of the EIS.</p>

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H.86-20	<p>Proposed Additional Appendix: Current and Past MDT Management Agreements In some places of the Draft EIS, the BLM describes Zone 6 as "relatively small" and unlikely to support an abundance of tortoises on its own. However, the size of Zone 6 rivals the combined size of Zone 4 and 5 (which areas are functionally isolated from the core of the Reserve, yet nonetheless important to conservation of the species). Further, current data indicates Zone 6 supports an MDT population that exceeds the abundance of Zone 4 and 5, without substantial support from long-distance translocations. The Final EIS, and any of the supporting documents produced by the USFWS and the BLM, should be revised to provide a more objective view of the conservation value of Zone 6 (in both size and current populations of MDT).</p>	<p>Text was added to the EIS in Section 3.5.2.1 to describe the conservation benefits of proposed Zone 6.</p> <p>Proposed Reserve Zone 6 currently supports a density of tortoises at 22.5 animals per square kilometer in surveyed areas. Maintaining connectivity of proposed Reserve Zone 6 to other portions of the Green Valley Analytical Unit and other units is likely important for sustaining landscape-level conservation of Mojave desert tortoise. Proposed Zone 6 and adjacent associated lands may provide an integral component to support landscape connectivity for the Mojave desert tortoise in the UVRU and with the nearby Northeast Mojave Recovery Unit. Protecting the sub-population of tortoises associated with proposed Zone 6 provides a source supporting demographic connectivity.</p> <p>As outlined in the Amended HCP, proposed Zone 6 would be managed consistent with the conservation goals of Zone 3, elevating the protection of Mojave desert tortoise habitat and removal or reduction of specific threats through actions such as fencing the eastern borders to prevent OHV access in non-designated areas; reducing the total mileage of designated access routes; and providing additional funding for law enforcement, education, monitoring, habitat restoration, litter control, and fire management.</p> <p>Refer also to responses to A.05-72 and H.86-19.</p>

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H.65-561	I-Provide baseline data on impacts existing ROWs have caused to the tortoise, other special status species, and the NCA's 9 resource values prior to calculating NCH ROW-specific impacts. Addressed in the DEIS: Not adequately addressed. The DEIS discloses that there are 38 existing ROWs on BLM lands in the RCNCA, but fails to disclose the impacts of these ROWs in terms of habitat fragmentation, adverse modification, predator subsidies, etc.	Impacts associated with utility ROWs are discussed by the type of ROW and its potential affect (e.g., fragmentation). Draft mapping of utility ROWs shows approximately three linear utilities (power, fiber optic, and water) spanning north-south and bisecting each of the proposed Northern Corridor ROWs. Due to the similarity and geographical closeness of the three proposed ROWs within the Reserve, the previously disturbed areas from the utility ROWs would be similar and not discernible among alternatives. Impacts that can be reliably quantified (i.e., tortoise abundance, suitable habitat, and fragmentation) were used for the evaluation. Existing threats to the Mojave desert tortoise are discussed in Section 3.5.1, Affected Environment.
H.65-505	7. Preserving dark night skies is also important to the health of nocturnal animals like the ring-tailed cat, kitfox, bobcat, Townsend's big-eared bat, lyre snake, western banded gecko. These species rely on darkness for navigation, to cue behaviors, to hide from predators, and to hunt and light pollution from the highway could disrupt these activities. Addressed in DEIS: No.	Some nocturnal wildlife species may benefit from the addition of lighting on the landscape (e.g., predators looking for prey) while other species may be negatively impacted (e.g., rodents escaping from predators). A standard stipulation/design feature outlined in Appendix D of the EIS requires that "any lighting proposed for the roadway will be designed to reduce impacts to dark night skies." This includes using only the minimum illumination necessary. Lighting installed within the ROW would be minimized to only emergency lighting where the roadway crosses the NCA, except where additional lighting is necessary near intersections or other areas that would support safety and proper visibility for vehicles and pedestrians.

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H.65-507	9. The DEIS must analyze how highway lighting disrupts the foraging and commuting routes of bats and interferes with their feeding behavior. Over 13 species of bat, including the BLM-sensitive Fringed Myotis and the rare Spotted Bat and Yuma Myotis, have been identified near the proposed route of the NCH. Addressed in DEIS: No.	Refer also to responses to H.65-155 and H.65-505. For the Northern Corridor new-build alternatives within the Reserve, lighting would only be added in two locations (at the intersections with Cottonwood Springs Road and with Red Hills Parkway). These two areas could attract bats potentially foraging in the area because the lights would be likely to create a feeding ground where prey is plentiful, as long as white or bluish-white lamps with a sodium mixture or mercury vapor are used; other types of lights do not attract bats (Rydell and Baagoe 1996). Because there are no hibernacula or special use areas for bats in the vicinity, impacts to normal routes and feeding behavior is anticipated to be minimal.
H.65-596	2. The potential for noise pollution to induce modified wildlife behavior such as aversion to highway surroundings, thereby reducing the total usable habitat and foraging. Addressed in the DEIS: Not adequately addressed. The DEIS only states that indirect impacts to the MDT include noise and vibrations from the highway.	It is unclear as to what extent desert tortoises are affected by noise. Specific to road noise, data show that when roads are fenced, tortoises readily take up residence and use burrows adjacent to roads. The EIS discusses noise with regard to the desert tortoise in Sections 3.5.1.1 and 3.5.2.1. The effects of noise on other wildlife are addressed in EIS Section 3.4.2.3 and Appendix G.
H.65-599	6. The DEIS should incorporate recent studies which show that human-caused noise has doubled the level of environmental sound in 63 percent of U.S. protected areas, and produced a tenfold or greater increase in 21 percent of protected areas. In general, a growing number of studies indicate that animals, like humans, are stressed by noisy environments. Addressed in the DEIS: No.	Refer to response to H.65-596.

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H.86-6	<p>Chapter 2.2.9.2, p 2-7</p> <p>The USFWS has developed a Passage Spacing Guidance that recommends maximum spacing 508 meters (approximately 1,667 feet) apart) as interpreted with best practices and new science. Attachment 2 in Appendix D. However, the BLM attachment 2 in Appendix D does not specify a maximum spacing of 508 meters; rather this guidance document later suggests that an appropriate distance for spacing is 670 meters. The BLM should clarify why the difference between the two spacing guidance. If the BLM determines to use the 670 meters, it should identify why that number was the appropriate spacing guidance for this project.</p>	<p>Refer to response to A.05-25.</p>
A.51-50	<p>27 3-48 3.5.1.1</p> <p>Text: "...the small geographic size of both the Reserve and the UVRU compromises the potential viability of the Mojave desert tortoise population."</p> <p>Comment: Given the above statement on page 3-48, how can the agencies now plan for and accommodate the Northern Corridor in the face of documented tortoise declines in a reserve area it already deems to be too small? This is the main reason we do not accept the Zone 6 "compromise" as meaningful to tortoise conservation. If the 46,098 acres of critical habitat within the boundaries of the Red Cliffs NCA are deemed to be too small to promote population viability (page 3-48 of the DEIS), how will the addition of 6,760 acres of (presumably) occupied tortoise habitat within Zone 6 (page 3-57 in Volume 2), which is neither critical habitat nor contiguous to the Reserve or NCA, be considered a realistic means to offset the avoidable impact of bisecting the existing Reserve with the Northern Corridor? If BLM and USFWS are obligated to perform these analyses and base management decisions on the analyses, how can anything but increased conservation management within the Reserve without the new freeway be entertained? The Council contends that by disabling the UVRU as a functional recovery unit, the Northern Corridor will preclude recovery across the range.</p>	<p>The text was changed in the EIS to read: ... "small geographic size of both the Reserve and the UVRU increases the vulnerability of the population."</p> <p>Proposed Zone 6 provides an area to protect additional habitat outside the existing Reserve that would benefit the UVRU by creating a natural refugia from disease and wildfire and preserving genetic and behavioral representation through habitat corridors connecting analytical units and recovery units.</p> <p>Proposed Reserve Zone 6 currently supports a density of tortoises at 22.5 animals per square kilometer in surveyed areas. Maintaining connectivity of proposed Reserve Zone 6 to other portions of the Green Valley Analytical Unit and other units is likely important for sustaining landscape-level conservation of Mojave desert tortoise. Proposed Zone 6 and adjacent associated lands may provide an integral component to support landscape connectivity for the Mojave desert tortoise in the UVRU and with the nearby Northeast Mojave Recovery Unit. Protecting the sub-population of tortoises associated with proposed Zone 6 provides a source supporting demographic connectivity.</p>

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A.51-51	<p>28 3-50 3.5.1.1</p> <p>Text: “While the Washington County HCP (1995) explicitly identifies only 87,229 acres of the ITP area as occupied or potential habitat for the Mojave desert tortoise, the HCP states that Mojave desert tortoise could also be found in ‘non-habitat’ areas.”</p> <p>Comment: Stated as a fact without the significance or ramifications of the new findings, the Council interprets these data to show that more occupied and more potential tortoise habitats are now at risk because the revised HCP would allow for the take of all tortoises from occupied habitats in Washington County that would not be protected in Zone 6. That more tortoises are now at risk to authorized take than before is evidence that the HCP should provide for more protection within the Reserve, as tortoises in the Zone 6 area are already protected from development on BLM-designated ACEC lands and from SITLA lands, which do not seem to be in immediate danger of development.</p>	<p>The previous 1995 authorization was for all tortoise habitat on non-Federal lands to be developed. Due to the recalibration of 1995 take numbers based on new knowledge on the abundance of tortoises and location of suitable habitat, there has been a change in identified acres of occupied and potential habitat. However, the total amount of acres authorized for incidental take under the Amended HCP remains approximately the same (i.e., it addresses take associated with activities on all non-Federal lands).</p> <p>The HCP is planning for the long-term conservation of the tortoise and is not restricted to areas of “immediate danger of development.”</p>
A.51-58	<p>35 3-59 3.5.2.1 3.5-10</p> <p>Comment: In addition to identifying numerous flaws associated with management of Zone 6 to offset development of the Northern Corridor (e.g., non-contiguous location, small size, authorized competitive recreation events, etc.), we note that the indirect impacts associated with Alternatives 2 (3,586 acres), 3 (2,652 acres), and 4 (2,021 acres) compared to the 6,760 acres in Zone 6, constitute indirect impacts to the primary Reserve of 53% for Alternate 2 (i.e., 53% of the 6,760 acres supposedly gained), 39% for Alternative 3, and 30% for Alternative 4. In other words, the indirect impacts associated with these three alternatives would comprise between a third and a half of the projected conservation value attributed to management of Zone 6, which further undermines any real mitigation by adopting this compromise. Whereas we recognize that fencing the Northern Corridor would be a minimization measure (and that there are no mitigation measures within the actual Reserve), where are the commiserate mitigation measures (e.g., habitat compensation) to offset indirect impacts? We believe that if the Applicant was sincere in</p>	<p>Refer also to response to A.21-11.</p> <p>The habitat in proposed Zone 6 in an ACEC consist of 2,345 acres protected for other non-tortoise conservation values. In addition, 3,821 acres of the ACEC extends outside proposed Reserve Zone 6. Proposed Zone 6 provides an area to protect additional habitat outside the existing Reserve that would benefit the UVRU by creating a natural refugia from disease and wildfire and by preserving genetic and behavioral representation through habitat corridors connecting analytical units and recovery units.</p> <p>Proposed Reserve Zone 6 currently supports a density of tortoises at 22.5 animals per square kilometer in surveyed areas. Maintaining connectivity of proposed Reserve Zone 6 to other portions of the Green Valley Analytical Unit and other units is likely important for sustaining landscape-level conservation of Mojave desert tortoise. Proposed Zone 6 and adjacent associated</p>

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	<p>achieving mitigation of impacts to the maximum extent practicable, that it would have recommended the entire Red Cliffs ACEC to mitigate impacts rather than just the eastern half.</p>	<p>lands may provide an integral component to support landscape connectivity for the Mojave desert tortoise in the UVRU and with the nearby Northeast Mojave Recovery Unit. Protecting the sub-population of tortoises associated with proposed Zone 6 provides a source supporting demographic connectivity.</p> <p>The administration of the conservation program by the County, including the addition of funding, personnel, and active management for proposed Zone 6, would provide additional protections specific to the tortoise that were not realized previously. A minor to moderate conservation benefit is expected by including 2,345 acres of ACEC lands in proposed Reserve Zone 6. Limited protections are already afforded to tortoises on 1,126 acres of BLM-administered lands that are not within the ACEC and changed management on these lands would result in a moderate level of conservation benefit to tortoises present there.</p> <p>The boundaries of proposed Reserve Zone 6 were identified by the County, as part of the County administered tortoise conservation program. The scope and scale of this designation is the responsibility of the County.</p>

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A.51-60	<p>37 3-63 3.5.2.1</p> <p>Text: “With approval of a highway alternative through the Reserve, Washington County would provide funding and technical assistance to UDOT for culverts under Cottonwood Springs Road within Reserve Zone 3 that would help restore some of the potential for Mojave desert tortoise movement across this preexisting internal barrier.”</p> <p>Comment: It is our understanding that fees collected under Section 10a of FESA are intended to promote conservation of tortoises, and that the need for culverts predates the Changed Circumstance that would facilitate the Northern Corridor. We note that the 1995 HCP required that, “Cottonwood Rd will either be gated where it crosses the northern and southern boundary of the Reserve, or it will be fenced” (Section 5.2.1). Therefore, in our estimation these culverts should already have been developed, and in fact should still be developed even if the BLM’s No Action alternative is selected. As written, the reader is led to believe that but for the Northern Corridor, these culverts will not be developed, which is irresponsible and misleading.</p>	<p>The 1995 HCP states that it would be fenced. There were no provisions for under-road crossings within Cottonwood Road.</p>
A.51-61	<p>38 3-63 3.5.2.1</p> <p>Text: “This [data collected between 2011 and 2017] reveals there is an important desert tortoise population cluster located within the path of the T-Bone Mesa Alignment, UDOT Application Alignment, and Southern Alignment Alternatives within the Reserve. This may be the most important high-density cluster of desert tortoises in the recovery unit (USFWS 2020a) [emphasis added]. Map 3.5-5 provides a visual representation of the habitat fragmentation discussed previously.”</p> <p>Comment: The Council asserts that this area of high density tortoise concentration is facilitated by, if not created by, protections granted under the 1995 HCP and subsequent BLM management. This tortoise concentration, then, has resulted from proactive conservation provided by the existing permits and management plans, which have concomitantly authorized the development and permanent loss of 22,822 acres of tortoises habitats from Washington County since 1996. To develop these habitats now after 26 years of cumulative loss of 22,822 acres of</p>	<p>Inclusion of the proposed Zone 6 into the Reserve is an important addition to the landscape-level protections for the Mojave desert tortoise. Additional text regarding proposed Zone 6 has been added to Section 3.5.2.1. In general, proposed Reserve Zone 6 would represent a large and contiguous block of habitat in Washington County outside the Reserve and would protect the largest known sub-population of tortoises that would otherwise be subject to take under the HCP ITP. With the inclusion of proposed Zone 6 as part of the Reserve, the SITLA land within proposed Zone 6 would not be developed, which provides indirect beneficial effect for 508 meters beyond the proposed Zone 6 boundary adjacent to the SITLA land. Protecting additional habitat outside the existing Reserve would benefit the UVRU by creating a natural refugia from disease and wildfire</p>

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	<p>tortoise-occupied habitats would be an unmitigable violation of the tenuous conservation balance accomplished under existing permits within the Reserve (see discussion in the Amended HCP on page 2), which cannot be mitigated by creating a noncontiguous satellite reserve in Zone 6.</p>	<p>and preserving genetic and behavioral representation through habitat corridors connecting analytical units and recovery units.</p> <p>As outlined in the Amended HCP, proposed Zone 6 would be managed consistent with the conservation goals of Zone 3, elevating the protection of Mojave desert tortoise habitat and removal or reduction of specific threats through actions such as fencing the eastern borders to prevent OHV access in non-designated areas; reducing the total mileage of designated access routes; and providing additional funding for law enforcement, education, monitoring, habitat restoration, litter control, and fire management.</p> <p>Refer to the final Plan of Development and mitigation measures outlined in Section 2.2.9.2 in the Final EIS for a comprehensive list of measures that will be implemented to avoid and minimize impacts to the tortoise. Specifically, under-road crossing structures would be constructed along the Northern Corridor, if approved, within the Reserve. Refer also to response to A.51-58.</p>

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H.65-128	<p>Finally, the DEIS explains that predation of MDT increases with human access and the addition of manmade structures like roads and utilities and that high levels of tortoise predation already occur in Red Cliffs by ravens, domestic dogs and coyotes, in addition to illegal take by people. While it is not clear how much predation is occurring in Zone 6, given the very high levels of recreation in Zone 6 and its proximity to urban areas, these rates are likely high and will lead to MDT mortality and stress. Similarly, the DEIS has not demonstrated that disease, which increases with human proximity (Berry et al. 2016 at 116, 119, 121, and 125) will not be a factor in future MDT viability. The DEIS does not provide evidence that these activities will not singly or aggregately with other Zone 6 activities adversely affect MDT populations and thus impair the mitigation benefit of Zone 6.</p>	<p>Due to the relatively recent discovery of the tortoise population within surveyed areas of proposed Zone 6, information regarding predation and disease rates available within this population is limited. Other than a tortoise exclusion fence to separate proposed Zone 6 from human access and development, constructed structures (e.g., roads and utilities) are not proposed within proposed Zone 6 under Alternatives 2, 3, and 4. However, if the lands are not included in the Reserve, as would be the case under Alternatives 1, 5, and 6, the non-Federal lands within the proposed Zone 6 boundary could be developed, thus increasing the potential for disease and predation and increased use within the population in the Reserve.</p> <p>As described in EIS Section 2.4.2.6, actions to better protect the Mojave desert tortoise population within proposed Zone 6 include community education, utility exclusions, reducing recreational trails, law enforcement, and monitoring. As population vulnerabilities become clearer, the agencies will engage in adaptive management strategies to keep the tortoise population viable.</p>

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H.65-129	<p>The DEIS fails to demonstrate that restoration of impacted lands within Zone 6 can be effective to restore MDT habitat integrity. Restoration in arid landscapes is notoriously difficult and probably will only get harder with the influence of climate change. USFWS 2011 at 73. Jones (2019) recently did a comprehensive literature review of restoration treatments in arid lands and found them mainly to be ineffective or deleterious. Effective restoration also depends on the willingness of people to comply with new behavioral requirements and restrictions. Especially when it comes to modifying recreational habits, this too is notoriously difficult.</p>	<p>Surveyed areas within proposed Reserve Zone 6 currently support a high-density population of tortoises in its current condition. Fencing of the eastern border and future closure of almost half of the present trails, as well as the addition of law enforcement and support of additional staff would protect and presumably enhance the existing conditions within proposed Zone 6. In addition, the management prescriptions associated with the proposed SGFO RMP Amendment would remove uses such as new ROWs and camping that could conflict with desert tortoise sustainability. The travel management plan that would be prepared to address route closures in Zone 6 would identify proposed restoration activities. The County has coordinated several clean up and restoration projects in the proposed Zone 6 area through its Give Your Land A Hand program. The County will continue with these volunteer and community based programs, and these programs will likely increase overtime in proposed Zone 6 to improve and restore habitat conditions for the Mojave desert tortoise.</p>
H.65-133	<p>The DEIS at 3-64 states that "proposed Zone 6 would be managed consistent with the conservation goals of Zone 3, elevating the protection of Mojave desert tortoise habitat and removal or reduction of specific threats through actions such as fencing the eastern borders to prevent OHV access in non-designated areas; reducing the total mileage of designated access routes; and providing additional funding for law enforcement, education, monitoring, habitat restoration, litter control, and fire management." However, this is not an accurate statement for the following reasons:</p> <ul style="list-style-type: none"> <li>• Fencing the eastern border of Zone 6 to prevent OHV access is beneficial to the MDT.</li> </ul> <p>However, OHV routes in Zone 6 will be reduced but not eliminated. OHV travel is not permitted in Zone 3 of Red Cliffs NCA.</p>	<p>The intention of management goals for proposed Zone 6 is to “elevate” the protection of Mojave desert tortoise habitat, including “<i>removal or reduction</i>” of threats similar to how the habitat is managed in Zone 3. While OHV travel is not permitted in Zone 3, reduction of OHV within proposed Zone 6 would be implemented as part of the project, while still allowing for lawful, permitted actions that are currently in place.</p>

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H.65-118	The cumulative effects analysis for "Special Species Wildlife" including for the MDT is less than one page long. DEIS at 183-184. The section provides only general statements about trends and does not provide any detailed information related to the spatial and temporal nature of the effects. Nor does it provide any quantification of the effects or contextualize the incremental effect of the proposed actions.	Refer to response to H.65-482.
A.38-7	The DEIS used a different assumption for assessing the adverse impacts of the Northern Corridor Alternatives than it did for assessing the social, economic and environmental benefits of the proposed Zone 6. Direct and indirect impacts to Tortoise Habitat, whether negative or positive, should use the same criteria in both contexts (i.e., the same buffer distances for quantification of direct/indirect impacts). For example, under alternatives where Zone 6 is not triggered (including No Action), the default condition should be that the non-federal lands in Zone 6 are subject to land development with the corresponding direct and indirect effects on adjacent BLM administered lands. The triggering of Zone 6 conservation measures reverses that condition and creates a new direct and indirect conservation benefit (see prior point).	Text was added to the analysis for Alternative 1 in Section 3.5.2 to evaluate the lost potential for beneficial effects because proposed Zone 6 would not be added to the Reserve. In addition, the analysis area now includes a buffer around the non-Federal portions of proposed Zone 6.

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A.24-13	<p>13) The NCH DEIS cumulative effects analysis lists many future projects (e.g. Lake Powell Pipeline, Western Corridor, Adventure Park, etc.) that may affect tortoises and other resources without any specific explanation of the likely extent to which those projects would add to the NCH’s adverse impacts. The NCH DEIS has a table with terse descriptions of a long list of proposed or foreseeable develop projects. This table does not, by any stretch, constitute an adequate NEPA cumulative effects analysis. This table also did not properly respond to many scoping comments relating to asking how various other projects may add harmful effects to those caused by the NCH. For example, the Bureau of Reclamation’s Lake Powell Pipeline (LPP) DEIS describes potential adverse impacts on over 500 acres of tortoise habitat. But the NCH DEIS tortoise cumulative effects analysis did not specifically include or address those LPP DEIS tortoise impacts. This failure prevents the public from knowing how the LPP’s adverse tortoise impacts may contribute to the rapid continuing declines of the tortoise populations in the RCDR, RCNCA, and Upper Virgin River Recovery Unit (UVRRU). BLM and FWS are cooperating agencies on the LPP DEIS, so this relevant tortoise information can and should have been carried over in detail in the NCH DEIS tortoise cumulative effects analysis. Sadly, it was not.</p>	<p>The cumulative impact section (Section 3.28.1.4) was updated to reflect the Lake Powell Pipeline, the DiVario Development, and the Western Corridor. Refer also to responses to DATA-02 and Form 4-20.</p>

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A.40-6	<p>The Cumulative effects are not adequately addressed. According to the Draft EIS, it is important to analyze the compounding impact the NCH will have on the environment when added to other past, present, and reasonably foreseeable future actions. The Draft EIS only considered impact from projects (roads, utilities) planned 15 to 20 years in the future. By limiting this time frame, the BLM ignores impact from additional planned roads and infrastructure, including road projects planned in the 2019- 2050 Draft Regional Transportation Plan. The Western Corridor, extensions of Navajo Dr. and Green Valley Dr., and the Babylon Road are excluded due to the inappropriately short BLM planning horizon. These roads will further damage and fragment Red Cliffs and Zone 6, thus making the already poor Zone 6 mitigation even worse. This is problematic because all planned future developments need to be accounted for and adequately addressed, but the current cumulative effects analysis does not do this. This analysis would also need to adequately address the impacts from the Lake Powell Pipeline. There are going to be impacts on desert tortoise populations due to the LPPL, and this Draft EIS does not adequately address that.</p>	<p>The planning horizon has been changed to reflect a 20- to 25-year horizon in the Final EIS (Section 3.28.1) to correspond to the 25-year term for the HCP ITP. Refer also to responses to A.24-13, DATA-02, and Form 4-20.</p>
A.28-10	<p>The cumulative impact analysis in the DEIS is inadequate. It fails to consider, for example, the damage to Mojave Desert Tortoise habitat that the Bureau of Reclamation’s Lake Powell pipeline project will have. BOR acknowledges that tortoise habitat will be destroyed by that project, but the BOR nor the BLM discuss the cumulative impact both projects will have on tortoise habitat. Also, the DEIS does not consider road projects that are being planned in the short and mid-term, such as the Western Corridor. These will have significant and negative consequences for tortoise habitat and other wildlife. These actions and other future projects must be acknowledged and analyzed.</p>	<p>Refer to responses to A.24-13, DATA-02, and Form 4-20, and A.40-6.</p>

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H.65-37	A table of possible future projects, with terse descriptions, fails to constitute an adequate cumulative effects analysis. And this DEIS table does not properly respond to many scoping comments relating to asking how various other projects may add harmful effects to those caused by the NCH. For example, the Bureau of Reclamation's Lake Powell Pipeline DEIS describes potential adverse impacts on hundreds of acres of tortoise habitat. Yet the NCH DEIS failed to specifically add that information, whether for NCH-related cumulative effects on the tortoise population in the Upper Virgin River Recovery Unit, or for purposes of the new HCP tortoise incidental take calculations. Additionally, the DEIS failed to address how the LPP may have growth inducing impacts in Washington County that could increase pressure on remaining MDT habitats. BLM and FWS are cooperating agencies on the BOR LPP DEIS, so this relevant tortoise information can and should have been carried over in detail in the NCH DEIS cumulative effects analysis.	The comment incorrectly states the agencies' responsible for the analysis of the Lake Powell Pipeline concluded that the completion of the pipeline would result in induced growth. Refer also to responses to A.24-13, DATA-02, and Form 4-20, and A.40-6.
H.65-85	For purposes of evaluating the mitigation value of Zone 6 for habitat lost if the NCH is constructed, the DEIS evaluates and compares MDT population data from Zone 6 and Zone 3. There are several problems with the DEIS' approach. First, the survey methods used in Zone 6 were not intended to estimate population density and are inadequate for the task. The DEIS states that USFWS pre-project survey protocols were used to estimate the abundance of 22.5 tortoise/km <sup>2</sup> in Zone 6, and that this protocol, "is only intended to locate individual tortoises and not to derive density estimates. Therefore, this density estimate is not comparable with other Mojave desert tortoise populations. Additional years of survey data will be needed to validate Mojave desert tortoise density in proposed Zone 6." DEIS at 3-49.	Section 3.5.2.1 text has been revised to indicate the survey methods conducted in proposed Zone 6 as equivalent in methodology and the 22.5 tortoises per square kilometer as a realistic abundance for surveyed areas within proposed Zone 6. Refer to response to A.05-11 for more information regarding surveys and tortoise densities in proposed Reserve Zone 6.
H.65-86	Second, the DEIS uses data from 2017 even though data from 2019 was available without a valid explanation. Zone 3 surveys were conducted in 2017 and 2019. The 2019 data appeared more dismal, yielding a density of 12.3 MDT/km sq. while the 2017 data yielded a density of 17.2 MDT/km sq. DEIS at 3-55. The DEIS rationalizes its use of the 2017 data by saying that the confidence intervals of both surveys overlapped and that they wanted to compare the 2017 data from zone 6 with the 2017 data in Zone 3. DEIS at 3-55. Third, the survey methods used in Zone 6 and Zone 3 were not the same and therefore the data are not comparable. As stated above, Zone 6 protocol yielded data not intended	The low detection rate discovered as a result of the 2019 surveys may be representative of low levels of surface activity by tortoises due to indirect impacts from a drought in 2019 (i.e., low forage and low water availability). The low detection rates are not presumed to be indicative of mortality, because survey results within the Reserve revealed a mortality rate of 4 percent, which is within the range of previous monitoring years as well as most other populations in the Mojave Desert (UDWR 2020).

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	<p>to estimate density while Zone 3 protocol (distance sampling method, UDWR 2018 at 1) did.</p>	<p>In the EIS, the Mojave desert tortoise density was initially applied evenly throughout Zone 3. However, USFWS recently developed an estimate for tortoise abundance within Zone 3 of the Reserve based on UDWR long-term monitoring data that showed that desert tortoises are not evenly distributed on the landscape. The UDWR Reserve monitoring dataset was filtered to include only survey transect observations between 2007 to 2017, excluding data that preceded the last major wildfires in Zone 3 (2019 raw data were not available at the time the analysis was initiated). Using the Kernel Density Tool in ArcPro Geographic Information System, mapping was generated that provides a more detailed assessment of the variability of tortoise abundance across the landscape within Reserve Zone 3. Analysis of tortoise densities are reflective of this clustering of tortoise populations that occurs throughout Zone 3, with higher tortoise densities in or near Middleton Wash and other areas along each alignment. The Final EIS has been updated in Sections 3.5.1.1 and 3.5.2.1 to incorporate this information.</p> <p>Refer to response to A.05-11 for more information regarding surveys and tortoise densities in proposed Reserve Zone 6.</p> <p>The statement in the EIS was incorrect and has been revised to indicate protocol survey techniques were developed and approved by USFWS to be comparable with other density estimates. The modified protocol surveys conducted on proposed Zone 6 lands are now used to compare abundance with that in Zone 3.</p>

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H.65-87	<p>The DEIS does not disclose or analyze relevant survey data. The DEIS should have included the project-specific survey completed in September 2018 by Washington County as part of the County's effort to complete a MDT survey of the alignment. This data is available from the Washington County habitat Conservation Plan Office. This survey showed more than 50 tortoises were found in a 300-foot wide corridor around the proposed NCH Alternative 3. A project-specific survey that discloses the number of MDT that would be adversely impacted by the highway will substantially contribute to understanding the direct impacts of the NCH on MDT and critical habitat.</p>	<p>As a result of using the kernel density estimates, the potential numbers of adult tortoises impacted in the Reserve per alternative has been updated (refer to Table 3.5-12 in Section 3.5.2.1). Refer also to response to A.21-12.</p>

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H.65-98	<p>4. The DEIS relies on Nussear et al. 2009 even though more sophisticated modeling tools exist. Defenders of Wildlife and NatureServe teamed up in 2019 to provide a more sophisticated MDT potential habitat mode (Feinberg et al. 2019). This model was submitted in the scoping letter submitted by the Red Cliffs Conservation Coalition (see page 61 and Appendix F). The Feinberg et al. (2019) model updates and refines Nussear et al. 2009 in the following ways:</p> <ul style="list-style-type: none"> <li>• The model output is 30-meter resolution, in contrast to the 1-kilometer resolution of the USGS model. This is over 1,000 times finer resolution, with each mapped pixel representing about 0.2 acres (in contrast to each pixel in the USGS model representing 247 acres).</li> <li>• The model incorporates imagery from the Landsat 8 satellite (launched in 2013 ).</li> <li>• The model incorporates higher spatial and temporal resolution climate data.</li> <li>• The model does not include occurrence data for the Sonoran desert tortoise (<i>Gopherus morafkai</i>). The USGS model had included data for this species as it was developed before the Mojave and Sonoran desert tortoises were formally recognized as distinct species.</li> <li>• The model includes more recent occurrence data, including from NatureServe's proprietary observation records. The Feinberg et al. (2019) model, in contrast to Nussear et al. (2009) that classified a large area as a single value ( color) of potential habitat, further refines that area into a range of potential habitat quality, allowing for quantification of potential habitat quality.</li> </ul> <p>In addition, Feinberg et al. (2019) also expanded the 2009 model scope to include a component to predict potential connectivity. This connectivity model can be used to identify likely areas of high and low connectivity, as well as "pinch" points, where movement corridors are narrowed by landscape features that do not support tortoise movement, such as high elevation mountains or interstate highways. Feinberg et al. (2019) at 13.</p>	<p>While the model by Feinberg et al. (2019) may be a more sophisticated model, the Nussear et al. (2009) model was peer-reviewed so the agencies felt it was a proven model that was more appropriate to use for the analysis.</p> <p>Refer also to response to H.65-94.</p>

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H.65-100	<p>Defenders of Wildlife continues to refine its modeling. Most recently, Defenders has created a web application that utilizes the potential habitat model in Feinberg et al. (2019) and Gray et al. (2019) to allow users to quantify habitat losses and gains envisioned by conservation "deals" similar to the one presented in this DEIS. The application, which can be accessed at <a href="https://defendersofwildlifegis.users.earthengine.app/view/tortoise2">https://defendersofwildlifegis.users.earthengine.app/view/tortoise2</a>, permits the user to weigh the relative importance of core habitat and connectivity habitat, depending on local area conditions and expert knowledge. We have used the Defenders' web application to offer quantifications related to the DEIS' proposal to build a NCH {Alternative 3) and designate Zone 6. A description of the app and methodology is attached as Appendix 2. Web Application Methodology, Defenders of Wildlife, September 2020. These models should be considered best available science and as such the agencies in the Final EIS must utilize them.</p>	<p>Refer to response to H.65-98.</p>
H.65-473	<p>The DEIS should address NCH related impacts for items 1-5 below:</p> <ol style="list-style-type: none"> <li>1.The impacts of habitat fragmentation on each of the species listed above.</li> <li>2. The impacts of ROW maintenance on each of the species listed above.</li> <li>3. Analysis of impacts to species found at the extremes of their historic ranges in the NCA because of its unique position at the meeting place of three ecoregional transition zones</li> <li>4. Analysis of the relationship between habitat fragmentation and climate change, including the need for connected, contiguous swaths of protected land for wildlife.</li> <li>5. Analysis of habitat fragmentation on reptiles with temperature dependent sex determination, including the Mojave desert tortoise.</li> </ol> <p>Addressed in the DEIS: Not adequately addressed. The DEIS only provides a general discussion of adverse impacts that the NCH would cause to general wildlife, but fails to analyze scoping concerns 2-5 listed above.</p> <ul style="list-style-type: none"> <li>• Virgin River Chub &amp; Woundfin</li> <li>• Southwestern Willow Flycatcher</li> <li>• Yellow Billed Cuckoo</li> <li>• Mojave desert tortoise</li> <li>• Flannel-mouth sucker</li> </ul>	<ol style="list-style-type: none"> <li>1. The EIS evaluated the indirect effects of the Northern Corridor, including habitat fragmentation, as addressed in Sections 3.4 and 3.5. Tables identifying acres of potentially suitable habitat subject to indirect effects are included for listed species and other special status species in Section 3.5.</li> <li>2. The potential impacts to these species are described in Chapter 3 and apply to both construction and maintenance. The types of impacts from maintenance are anticipated to be similar to those expected from construction. All terms and conditions applied to the ROW grant for construction would also apply to maintenance activities.</li> <li>3. Species that are at the extremes of their historic ranges (e.g., southwestern willow flycatcher, Mojave desert tortoise, common chuckwalla, Gila monster, western banded gecko, sidewinder, western threadsnake), though not specifically called out as such, are addressed in the EIS.</li> </ol>

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	<ul style="list-style-type: none"> <li>• Virgin spinedace</li> <li>• Bald eagle</li> <li>• Ferruginous hawk</li> <li>• Lewis's woodpecker</li> <li>• 133 migratory birds and birds of conservation concern</li> <li>• Fringed myotis</li> <li>• Kit fox</li> <li>• Townsend's big-eared bat</li> <li>• Common chuckwalla, Gila monster</li> <li>• Sidewinder, western banded gecko</li> <li>• Western thread-snake</li> <li>• Mule deer</li> <li>• Mountain lion</li> </ul>	<p>Potential impacts to these species are analyzed in Section 3.5.</p> <p>4. A discussion of the cumulative effects of climate change is included in Section 3.28, Cumulative Effects. In addition, a discussion on the effects to wildlife connectivity is included in the General Wildlife and Special Status Wildlife sections (Section 3.4 and Section 3.5, respectively).</p> <p>5. An analysis of habitat fragmentation on the Mojave desert tortoise is included in Section 3.5. Impacts described for the tortoise would be similar to those that would be experienced by other reptiles with temperature-dependent sex determination.</p>
H.65-623	<p>11- Zone 6 Survey Methods: If different survey methods are used (as we know was the case in 2017 for RCNCA and Zone 6) DEIS must explain clearly and concisely how their differences are equitable." Addressed in DEIS: No.</p>	<p>Refer to responses to H.65-85 and H.65-86.</p>
H.65-618	<p>6 - Zone 6 Mitigation Value and Survey Methods: Describe the mitigation value (tortoise abundance and density and quality of habitat) of Zone 6 in a manner that enables its value to be compared accurately and fairly with the value of the unfragmented (pre-NCH) Red Cliffs Desert Reserve Zone 3. Survey methods to determine density and abundance of the threatened Mojave desert tortoise in Zone 6 and Zone 3 must be comparable. If different survey methods are used (as we know was the case for 2018 surveys in Zone 6) the DEIS must explain clearly and concisely how their differences are equitable. Addressed in DEIS: No. The DEIS fails to resolve the issues with different survey methods used in Zone 6 versus Zone 3.</p>	<p>Refer to responses to DATA-04, H.65-85, and H.65-86.</p>
H.65-130	<p>The DEIS inaccurately presents the mitigation value of Zone 6. As discussed in a previous subsection, the DEIS inappropriately applies Nussear et al. (2009) to calculating suitable habitat. In addition, the MDT data provided in the DEIS is inadequate and inappropriately applied to calculating MDT density. The mitigation value of Zone 6 cannot be determined without accurate data.</p>	<p>Refer to responses to DATA-01, H.86-20, H.65-98, and H.65-94.</p>

**0.3.32 Vegetation Communities**

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A.05-54	<p>Chapter 3.2.2.1, p 3-10                      EIS Text: In addition, a 1-kilometer buffer was placed around each proposed new highway ROW (i.e., T-Bone Mesa Alignment, Utah Application Alignment, and Southern Alignment) and the Analysis Area for the HCP. A 300-foot buffer was placed around each proposed existing road expansion (i.e., Red Hills Parkway Expressway and St. George Boulevard/100 South One-way Couplet). This buffer represents the geographical limit for the spread of dust and dust deposition from construction activities as well as the potential spread of exotic invasive species outward from the ground disturbance areas.                      Comment:                      a) The Draft EIS provides no rationale for the 1 km distance applied to quantify the extent of indirect impacts to vegetation. While the text suggests that this distance accounts for the "area likely to be affected by dust deposition and potential spread of non-native species," there are no references to any science establishing that 1 km is an appropriate distance.                      b) Also, the distance applied to the road expansion alternatives uses a substantially smaller distance (300 feet; or only 1;10th of the distance) to approximate these indirect impacts. Again, no rationale is provided for the smaller distance. Presumably construction dust would be able to travel a similar distance as for new "green field" construction, and disturbance of vegetation adjacent to at least the Red Hills Parkway Expansion alternative could also trigger the spread of non-native vegetation.                      c) This same 1 km distance (if justified here) should be equally applied to the analysis of Alternatives 2-4 which consider the beneficial impacts of proposed Zone 6. In particular, the elimination of development on 3,300+ acres of non-federal lands. The buffer for evaluating the associated benefits would extend onto adjacent BLM-administered lands, including the Red Bluff ACEC. The Draft EIS should provide supporting information for the distances uses and explain the basis behind any differences for otherwise similar types of activities. This comment also applies to similar statements in Chapter 3.3.</p>	<p>a) Added footnotes where 1-kilometer buffer is introduced to explain this is a reasonable upper bound buffer distance that identifies an area of potential impact to vegetation communities from fugitive dust and invasive weeds based on the dispersal distance of fugitive dust.                      b) The buffers have been explained as footnotes in Section 3.2.2 and 3.3.3. The footnotes where the 300-foot distance is introduced explain that because of to the limited construction footprint related to the Red Hills Parkway Expressway and the built-up developed environment surrounding the St. George Boulevard/100 South One-way Couplet alignment, a 300-foot buffer was used to capture the effects of fugitive dust and the spread of exotic invasive species. Additionally, these alignments would be less likely to spread exotic invasive species outward due the very limited amount of surrounding undeveloped ground; additionally, dust would settle on developed areas rather than natural vegetation communities.                      c) Added text stating the indirect benefits (within the 1-kilometer buffer) of not developing the non-Federal lands within proposed Zone 6.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.05-55	<p>Chapter 3.2.2.3, p 3-11                      EIS Text: Dust deposition on surrounding native plants would occur up to 1 kilometer outside of the ROW (Table 3.2-3) and Analysis Area for the HCP. Exotic invasive species, particularly annual grasses, are anticipated to spread up to 1 kilometer outside of the ROW and Analysis Area for the HCP.                      Comment:                      The analysis of dust and non-native species spread for the ROW alternatives does not consider that portions of the Reserve and certain <u>federal lands in the Permit Area</u> are already affected by the dust/exotic buffer from the anticipated land development on nonfederal lands that happens under baseline and all action alternatives. For instance, lands within 1km (or whatever the appropriate distance should be) of the Reserve boundary should already be considered affected by dust and non-native species spread.                      The Draft EIS should be revised to account for existing impact areas and review the extent to which additional impacts are likely considering the background of existing development and expanding spread of nonnative plants.                      Likewise, the Draft EIS should be revised to acknowledge the positive benefit of Zone 6 establishment and retirement of previously authorized take towards ameliorating this existing impact from development on adjacent BLM-administered lands (some of which are ACEC-designated). This comment also applies to similar statements in Chapter 3.3.</p>	<p>Text was added to Section 3.2.2.3, Impacts from Alternative 2, analysis to explain that the analysis areas are already infested with exotic invasive grasses, and therefore additional spread may have little impact on the total absolute cover of exotic invasive grasses in the analysis areas. All vegetation within the Analysis Area for the HCP has potential to be directly and adversely impacted as a result of regular development throughout the St. George area except that a conservation measure is proposed that would be implemented to protect a yet to be determined viable population of Holmgren milk-vetch in the Central Valley Critical Habitat Unit 1c. When calculating indirect impacts out to 1 kilometer or 300 feet, developed areas were excluded from the total acreage impacts. Text was added to 3.2.2.1, Analysis Methods and Assumptions, to clarify the methodology. Text was added to note that native vegetation within the Proposed Zone 6 Analysis Area would remain protected, as no development would occur on the non-federal lands within Zone 6. Additionally, a reduction in dust and the continued spread of invasive species up to 1 kilometer outside of the non-Federal lands within the Proposed Zone 6 Analysis Area would occur (Table 3.2-5). Dust deposition on surrounding native plants would occur up to 1 kilometer outside of the ROW (Table 3.2-3) and Analysis Area for the HCP. Exotic invasive species, particularly annual grasses, have the potential to spread up to 1 kilometer outside of the ROW and Analysis Area for the HCP.</p>
H.65-73	<ol style="list-style-type: none"> <li>1. Vegetation Survey Technical Report; Jacobs 2020f is not provided as part of the DEIS which obfuscates the reasoning behind the methodology that was used. The DEIS presents only the results of these surveys:</li> <li>2. It is unclear how the Jacobs (2020f) plot analysis is actually used.</li> <li>3. No justification is provided as to why on-the-ground vegetation mapping surveys (coupled with rare plant surveys - see below) along each Alternative right-of-way (ROW) was not done. The DEIS relies</li> </ol>	<ol style="list-style-type: none"> <li>1. Several survey reports have been completed as part of this EIS. The DOI strongly suggests brevity in EIS documents and discourages the attachment of extraneous information. As such, the vegetation survey technical report will not be attached in the Final EIS. This document will be made available to the public upon request.                      To summarize the methodology, surveys were conducted in March and April of 2020 following the BLM's assessment, inventory, and monitoring (AIM) strategy</li> </ol>

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	<p>on the Landfire data for impact analysis while recognizing that it is inaccurate:                      "The LANDFIRE data are not intended to imply 100 percent accuracy on the ground."                      (DEIS at 3-12)</p> <p>Comprehensive on-the-ground surveys are required to provide the necessary information on the actual vegetation communities that occur within the ROWs in order to analyze the actual acreage of permanent and temporary impact for each vegetation community. For example, it is unclear if any of the unique plant communities, including riparian and wash communities, are within the alternatives' ROWs.</p> <p>4. While Appendix E identifies 105 different Vegetation Types, the impact analysis does not identify the detailed vegetation types that would be impacted, but instead reduces them down to only three categories - Desert scrub, Exotic-Invasive species and Shrubland (Table 3.2-2 at 3-12). It is unclear how these categories were determined and which "physiognomy" types were included in the three categories. This oversimplification into just three categories undermines the existing complexities of the landscape and results in an inaccurate evaluation of the potentially impacted plant communities.</p>	<p>as identified in the <i>Monitoring Manual for Grassland, Shrubland, and Savanna Ecosystems</i> (Herrick et al. 2017). Plots were set up by laying out three transects, each 25 meters long beginning 5 meters from the plot center. To quantify percent cover by species, a pin is dropped every 0.5 meter along each transect, beginning at 0.5 meter, to identify everything intercepted by the pin. Maximum vegetation height was measured and recorded every 2.5 meters along each transect. A soil stability test was conducted to measure the structural development and erosion resistance of the soil.</p> <p>2. The plot analysis (AIM plots) provides a general composition of the plant species, particularly exotic invasive species, that are found in the alternative ROWs. Survey results are included in the EIS to inform decision makers.</p> <p>3. It was determined that the widely used and accepted available datasets (including the LANDFIRE data, USGS modeling results, and the TNC Forecasting Report specific to the Reserve), together with AIM Plot Analysis, coordination with agency biologists, Mojave desert tortoise burrow surveys and reconnaissance vegetation surveys within the ROWs, were sufficient to characterize the analysis areas. In addition, due to the size of the analysis areas, a comprehensive on-the-ground survey for the entire analysis area would have been impractical. Table 3.2-2 has been revised to refine the vegetation groups and show impacts to vegetation types specifically. No LANDFIRE-mapped washes, wetlands, or riparian areas would be impacted by any of the ROWs. However, please refer to Section 3.10, Wetlands, Floodplains, and Waters of the U.S., for an assessment of impacts to ephemeral washes. The jurisdictional delineation of Waters of the U.S. represents an on-the-ground survey and supersedes the LANDFIRE data.</p>

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		<p>4. Appendix E was updated to include the EIS groupings displayed in the figure and generalized in the text, along with the specific vegetation types. Tables 3.2-2, 3.2-3, 3.2-4, and 3.2-5 were updated and refined to include the more specific vegetation types as well.</p>
H.65-75	<p>Equally egregious, is the failure to analyze the long-term operational impacts from a new roadway as a permanent ongoing vector for introductions of invasive species. Increasing the cover and number of invasive plant species into the conservation areas would further degrade the habitat that is already experiencing degradation from ongoing large-scale fires exacerbated by climate change (see sections below). Long-term mitigation is required to prevent introduction of invasive plants (and animals) via any constructed road in or near the conservation areas. Mitigation would require regular monitoring for invasive species and the development and implementation of an Integrated Pest Management Plan that would effectively prevent any additional introductions of nonnative species into the NCA and Preserve. Brooks et al. (2004) state "One of the few certainties of invasive plant management is that exclusion of potentially threatening species before they invade, or at least early detection and rapid response at the very early stages of invasion, is the most cost-effective and successful way to prevent their negative ecological and economic impacts".</p>	<p>Several best management practices (BMPs) specific to weed control are outlined in Appendix D of the EIS. For instance, if an action alternative is selected, a Noxious Weed Management Plan would be required prior to construction of the proposed Northern Corridor. Other examples of BMPs are as follows:  <b>Broadcast applications of herbicides would be prohibited within the project area; if necessary, spot treatments would be applied by hand using herbicides approved by the U.S. Environmental Protection Agency and BLM to treat noxious weeds. The highway project area would be monitored and controlled, as necessary, for weeds for the life of the ROW grant (which may include maintenance activities).</b>  <b>In addition, a Red Cliffs NCA RMP BMP (noxious and invasive weed prevention) states that the goal is to minimize soil disturbance. To the extent practical, native vegetation would be retained in and around project activity areas and soil disturbance would be kept to a minimum.</b>  <b>Only native plant species would be used in reclamation activities. Locally derived seed is preferred. Restoration of biocrusts and associated mycorrhizal fungi should be considered in the Reclamation Plan. Fill materials would be free of fines, waste, pollutants, and must be certified weed-free. The BLM would inspect reclamation activities at the end of construction to ensure disturbed areas are revegetated/restored according to the performance standards within the approved Reclamation Plan.</b></p>

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A.28-4	<p>Surface disturbance associated with construction leads to increased bare ground and facilitates colonization by cheatgrass. Restoration in desert landscapes often fails, so the best way to maintain ecosystem health is by prevention, not mitigation after the damage is done. The BLM/USFWS cannot rely on promises of restoration or revegetation of habitat since the disturbance will be on-going.</p> <p>One of the most urgent threats to desert tortoises is increased fire frequency due to the spread of highly flammable weed species, including cheatgrass. These fuels were implicated in the fires that devastated desert tortoise populations in 2005 and 2006. The project will undoubtedly increase cheatgrass due to the increased soil disturbance and removal of vegetation. The current seed bank has a high proportion of cheatgrass already, and these will outcompete less flammable native species. The DEIS does not describe how the BLM and USFWS intend to address the increased weeds and fire frequencies that the Northern Corridor would cause due to increased surface disturbance and cheatgrass.</p>	Refer to response to H.65-75.
H.65-288	<p>a) The HCP, which addresses development on Mojave desert tortoise habitat on non-Federal, nonTribal land in most of Washington County involves a substantial amount of acreage that would lead to vegetation loss both with the action alternatives and No Action Alternative.</p> <p>b) The project related effects discussed in Section 3.2, combined with any additional ground-disturbing activities within land supporting native vegetation communities, would create cumulative effects to native vegetation communities. Because development on private lands could occur under all alternatives, cumulative effects are relatively similar for each alternative.</p> <p>Issue</p> <p>A. The first highlighted statement above is untrue: the loss of vegetation is only substantial for alternatives 2-4. In addition, the highway implemented in those alternatives, as well as several of the other planned projects in or near zone 3 and the proposed zone 6 would provide a pathway for invasive species.</p> <p>B. The second highlighted statement above is untrue: without the implementation of one of the alternatives 2-4, the private lands would have no access and would not be able to be developed.</p>	<p>a) The No Action Alternative presumes continued development on private lands throughout the county, which would result in substantial impacts to vegetation communities. The approximately 300 acres of vegetation loss associated with Alternatives 2 through 4 is less than 0.5 percent of the maximum vegetation potentially affected if all private lands with the Analysis Area for the HCP were developed (Table 3.2-4); in this context, cumulative effects are relatively similar for all alternatives. However, text was revised in Cumulative Section 3.28 to reflect the minor increase as a result of Alternatives 2 through 4.</p> <p>b) Private lands include all lands within the Analysis Area for the HCP, not just lands within the Reserve. Therefore, it is presumed that access is available to private lands, regardless of their location. Private lands are presumed to be developed regardless and independent of development of a Northern Corridor ROW.</p>

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H.86-12	<p>Chapter 3.2.1.2 Exotic and Invasive Plant Species</p> <p>The BLM identifies that roads may increase the spread of invasive plant species. Because of this identification, the BLM may want to disclose proposed certain management practices that will be applied during construction and operation of any of the routes identified in Alternative 2 through 4 to stop or minimize the spread of invasive plant species introductions and spread. The inclusion of proposed management practices to minimize the introduction of invasive species during construction of the ROW Mitigation could show the public that the State will regularly monitor for invasive species and control invasive plants during the construction and operation of the ROW.</p>	<p>Refer to response to H.65-75. Also refer to Appendix D of the Final EIS and measures outlined in the project description.</p>

**0.3.33 Visual Resources**

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VIS-01	<p>The Northern Corridor would not conform to existing VRM classes within the Red Cliffs NCA. The existing VRM classes were established to help meet the Congressionally defined requirements to conserve, protect, and restore the Red Cliffs NCA values. The BLM should not amend the management of visual resources in the Red Cliffs NCA through a plan amendment to the Red Cliffs NCA RMP to accommodate the proposed highway.</p>	<p>As disclosed in the visual resources analysis contained in the EIS, under Alternatives 2, 3, and 4, the Northern Corridor would not conform with existing management of visual resources and current VRM classes in the Red Cliffs NCA. An amendment to the Red Cliffs NCA RMP would be required for the BLM to consider approving the Northern Corridor right-of-way under Alternatives 2, 3, or 4. As described in Chapter 2 of the EIS, the BLM has developed two potential RMP amendments that would accomplish this task.</p> <p>The BLM decision maker will consider the BLM's decisions to be made (including the potential for a visual resources plan amendment in the Red Cliffs NCA) using the analysis contained in the EIS in accordance with FLPMA, OPLMA, and relevant BLM policies and manuals. As outlined in BLM Manual 6220, the BLM decision maker will evaluate discretionary uses within the NCA through the NEPA process and will analyze whether the impacts of the proposed use in the NCA are consistent with the protection of the area's objects and values. As part of this analysis, the decision maker will consider the severity, duration, timing, and direct and indirect and cumulative effects of the project. If the BLM decision maker selects a Northern Corridor alternative that would cross the NCA and determines that an associated amendment to the RMP is warranted, the BLM ROD would indicate how the actions approved by the BLM are consistent with the designating legislation.</p>

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A.30-12	<p>ES.5-1; ES-12 The Visual Resources topic in Alternative 2 calls out the visual impact to the residences “in the Green Springs residential area” but in Alternative 5 fails to list the visual impact of that alternative on the residences on Foremaster Ridge, downtown St. George, Southgate Hills and Stone Cliff – all residential areas that will have clear view of the massive infrastructure that will be needed for the on-off ramps on Red Hills Parkway. The note on Alternative 5 also states that the interchanges will occur “in areas with existing transportation features” as if that is a mitigating factor, however the existing roadway is at grade where the Alternative calls for grade separated and elevated interchanges which will definitely impact the residential areas as well as BLM administered lands.</p>	<p>Section 3.13.2.6 discloses that Alternative 5 would have adverse visual impacts, stating “Long-term adverse visual impacts would result from construction and operation of the Northern Corridor under Alternative 5, which would vary depending on location. The proposed structures at 200 East and 1000 East, as well as the flyovers to connect to I-15, would be visually prominent and noticeable from many viewpoints throughout St. George...” The text notes “many viewpoints” rather than specific neighborhoods, as viewpoints may not necessarily lie within officially defined neighborhoods. These affected areas are identified on Map 1-2d, Visibility Map, in the Visual Impact Assessment Technical Report prepared for the project. The analysis does not downplay the height of the proposed structures compared to existing conditions, stating, that they would be “visually prominent and noticeable.” The text also states, “The structures’ sizes would be much more substantial than existing infrastructure as no similar features exist at 200 East and 1000 East, thereby representing a new visual intrusion.” The text does not refer to “existing transportation features” as a mitigation factor. Rather, the text refers to the “existing landscape character,” which would remain that of a transportation corridor, but with the adverse impacts disclosed in the analysis.</p>

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A.25-48	<p>"The DEIS contains a sensitivity level table and map for proposed Zone 6 but not one for Red Cliffs NCA/Reserve. It makes it difficult to compare the two areas on an equal basis. The DEIS notes that "no maps were developed for these categories because they are uniform throughout the analysis area" and that may explain why, but it still makes it difficult for a member of the public to do a comparison. Perhaps this "scenic quality" map 3.13-3 for Red Cliffs could help someone infer the "sensitivity level", i.e., "the level of concern the public would express toward modifications in the landscape." It just seems that the DEIS could make a clearer comparison for the public if "Visual Resource Inventory Sensitivity Ratings" is the same as "Visual Resource Inventory Scenic Quality" (names given to maps). Regarding Table 3.13-2, the DEIS doesn't clearly explain, "These components are rated on a scale of 1 to 5, with 5 being highest quality; however, note that the cultural modifications component can also include negative scores.""</p>	<p>The EIS states that the VRI Sensitivity Rating for the NCA north of St. George is high and that no maps were developed for specific Sensitivity Rating categories for the NCA analysis area as they are uniform throughout it. More information about sensitivity levels was provided for Zone 6 because that data varies throughout Zone 6. In addition, Table 3.13-5, 3.13-8, 3.13-10, and 3.13-11 depict the sensitivity level (high) and the number of associated acres that would be affected for Alternatives 2 through 5, respectively, within the NCA analysis area. Therefore, a comparison can be made between the high sensitivity levels throughout the NCA analysis area and the low to high sensitivity levels in Zone 6.</p> <p>BLM Manual H-8410-1, <i>Visual Resource Inventory</i>, states that "Cultural modifications [i.e., roads, historical and other structures, mining operations, or other surface disturbances] ... may detract from the scenery in the form of a negative intrusion or complement or improve the scenic quality of a unit." Therefore, a negative intrusion would result in a negative score in the rating when "[Cultural] Modifications add variety but are very discordant and promote strong disharmony."</p> <p>Refer also to response to DATA-01.</p>
H.65-167	<p>"Most of the Foreground/Midground areas have been designated VRM Class II and the main objective for VRM Class II is to "Retain the existing character of the landscape. Allow a low level of change that should not attract the attention of a casual observer." The preferred alternative (Alternative 3) would impact 19, 989 acres which are now designated as VRM Class I, 18,630 acres that are VRM Class II, 6,095 acres that are VRM Class III and 130 acres that are VRM Class IV. The DEIS does not do a clear job of adding up all of the acres that would need to have the VRM Class downgraded for each alternative. For example, how many acres of VRM Class II lands would be downgraded for Alternative III? What is the total acreage?"</p>	<p>As described in BLM Manual 8431, contrast generated by a project is analyzed from Key Observation Points (KOPs) to identify whether the level of contrast would meet the VRM Class objectives for the lands crossed. As described in the EIS, the project would not cross any VRM Class I or II lands. Therefore, the only changes to VRM classes proposed by the Red Cliffs NCA RMP Amendment would be associated with VRM Class III lands. Table 3.13-7 displays the total acres of each VRM class for the entire Red Cliffs NCA that would result from each alternative and accompanying plan amendment. The location of these various amendments and the existing VRM classes that would be affected is displayed on Map 2.3-2 in the EIS.</p>

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H.65-168	<p>"According to the Jacob's Visual Technical Report in Appendix M, the Red Cliffs Reserve has 18,630 acres of lands designated as VRM Class II, yet the same table shows the exact same acres for Alternative 3. If the VRM Class is going to be downgraded, the DEIS should list the exact acres that will be changed and this should also be mapped. Under Alternative 3 and B, how many acres exactly would have the VRM Class downgraded and where would these be located? The Jacob Report in Appendix M of the DEIS states: ""Red Cliffs NCA RMP Amendment Alternative B: This alternative would allow for a one-time exception to cross a ROW avoidance area, manage the ROW for Northern Corridor as VRM Class IV, and manage an area around the selected route as part of the Rural Recreation Management Zone."" The DEIS fails to provide the exact acres that would need to be downgraded to VRM Class IV."</p>	<p>Refer to response to H.65-167.</p>
H.65-169	<p>The above map (copied from technical report) shows the preferred alternative route going through VRM II Class lands, but a highway will be visible from great distances impacted VRM Class I and III lands as well. This map shows that building this highway would be highly inconsistent with the management objectives of the reserve.</p>	<p>Map 1-5 (Red Cliffs National Conservation Area VRM Classes) in Appendix M, Visual Impact Assessment Technical Report, shows the proposed alternatives traveling through VRM Class III lands, not VRM Class II lands. The map included with the comment is Map 1-3 in the Technical Report, which depicts VRI classes rather than VRM classes. As described in BLM Manual 8431, contrast generated by a project is analyzed from KOPs to identify whether the level of contrast would meet the VRM class objectives for the lands crossed by the project, not from the lands the project is viewed from.</p>
H.65-170	<p>"Because of the long -range visibility of the proposed Northern Corridor Highway, The Background Distance Zones should have been reviewed more adequately in the DEIS. The impacts to both the scenic quality as well as the night sky will be visible for great distances. Distance zones are described as: Areas seen beyond the foreground-middleground distance zone, but less than 15 miles away, are in the background zone. Areas not seen in the foreground-middleground or background distance zones are in the seldom seen distance zone. A new highway would be noticeable, especially at night, from the background zones.</p>	<p>The BLM defines the background distance zone as between 5 and 15 miles. The Visual Impact Analysis Technical Report states, "The farthest edge that people standing on a flat surface with their eyes about 5 feet off the ground can see is approximately 3 miles away (Roland 2019)." Therefore, viewers at a superior viewpoint would be expected to see farther distances, but substantially less detail. This is evident in the simulations created for KOPs 2, 5, and 7, which disclose impacts to the background. The Visual Contrast Rating Worksheet for KOP 5 states, "An extensive amount of fill elevating the roadway cuts diagonally across the middleground and background," and "The new road surface is barely detectable due to the view angle and distance. However, the</p>

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	<p>This would be especially true for the Cottonwood Forest Wilderness Area."</p>	<p>movement of vehicles would draw attention to the road, but to a slight degree given the distance." Similarly, the Contrast Rating Worksheet for KOP 7 says, "The new road creates a strong, curving linear form whose lines are visible for a long distance." Although vehicle headlights would be visible at night, they become more difficult to see as distance increases, as depicted in the simulation for KOP 2 and described in the associated Contrast Rating Worksheet, which states, "Lights on vehicles are mostly imperceptible from this location, but would be more prominent at a lower, closer viewpoint." The analysis area is several miles southwest of the Cottonwood Forest Wilderness Area and would not be visible from it. However, the analysis area would be visible from some parts of the southern part of Cottonwood Canyon Wilderness Area, the border of which is approximately 1.4 miles north of Green Springs. The BLM describes the Cottonwood Canyon Wilderness as being formed by "massive blocks" of sandstone "leaving rounded domes and numerous small canyons." Therefore, distance and topography preclude views from most areas of the wilderness. The new road would be visible from select locations within the wilderness, and any such views would also include the City of St. George and Red Hills Parkway. The city would dominate these views, particularly at night, when the road would be indistinguishable from city.</p> <p>Additional information and analysis regarding potential impacts on both daytime and nighttime views from the Cottonwood Canyon Wilderness area has been added to Section 3.13 of the EIS and Visual Impact Analysis Technical Report.</p>

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H.65-171	<p>"The DEIS has inadequate Zone 6 visual resources mitigation. The proposed Zone 6 would add over 6,000 acres to the reserve. The DEIS does not make it clear how many acres in Zone 6 are designated as VRM Class III, but it appears to be about 5,000 acres. But the DEIS does make it clear that because the BLM is proposing to downgrade large unit of VRM Class II lands adjacent to the proposed alternative, this is not an adequate mitigation for visual resources. The BLM clearly values VRM Class II lands over VRM Class III, but provides no mitigation for the loss of VRM Class II lands in the Red Cliffs Reserve."</p>	<p>Refer to response to DATA-01. Establishment of Zone 6 was not proposed as mitigation for visual resources. Measures to reduce the visual impacts of the proposed Northern Corridor are included in Appendix D and Table 5 of the Visual Impact Assessment Technical Report. Map 1-5 (Red Cliffs National Conservation Area VRM Classes) in the Visual Impact Assessment Technical Report shows the proposed alternatives traveling through VRM Class III lands, not VRM Class II lands. The comment may be referring to Map 1-3 in the Technical Report, which depicts VRI classes rather than VRM classes. The EIS states, "Approximately 51 percent of proposed Zone 6 is BLM-administered land (3,471 acres)." Map 1-9, Proposed Reserve Zone 6 VRM Classes, depicts all of the BLM-administered land as VRM Class III. Therefore, 3,471 acres of Zone 6 is classified as VRM Class III.</p>
H.65-172	<p>"The DEIS has inadequate Key Observation Point (KOP) simulations. The KOP simulations do not cover the background distance zones and the BLM failed to provide a night- time KOP simulation for dark skies. The highway will have a particularly big impact to dark skies with several moving headlights. This should be considered a major impact from this project."</p>	<p>Simulations created for KOPs 2, 5, and 7 depict background views, and KOP 2 portrays night conditions. The Visual Contrast Rating Worksheet for KOP 5 states, "An extensive amount of fill elevating the roadway cuts diagonally across the middleground and background," and "The new road surface is barely detectable due to the view angle and distance. However, the movement of vehicles would draw attention to the road, but to a slight degree given the distance." Similarly, the Contrast Rating Worksheet for KOP 7 says, "The new road creates a strong, curving linear form whose lines are visible for a long distance." The Contrast Rating Worksheet for KOP 2 states, "Lights on vehicles are mostly imperceptible from this location, but would be more prominent at a lower, closer viewpoint." Dark skies or nighttime sky viewing can be adversely affected by skyglow, defined by the International Dark-Sky Association as "brightening of the night sky over inhabited areas," to which lights from motor vehicles can contribute. Glare, defined as "excessive brightness that causes visual discomfort," is another contribution to light pollution. The St. George area currently experiences a relatively high amount of skyglow that extends north into the NCA. The Visual Impact Assessment Report prepared for this project notes, "Because of its proximity to</p>

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		<p>urban development, light pollution is visible from many locations within the Red Cliffs NCA. The municipal glow is 'clearly evident' even from within the deeper canyons of distant wilderness areas, obscuring much of the night sky (BLM 2015)." The source of the quote is the 2015 BLM RMP for the Red Cliffs NCA. Although some sources of skyglow data depict skyglow along I-15, it is the result of local development (i.e., residential, commercial, and industrial uses) along the highway corridor within St. George and urban areas. Similarly, because the Northern Corridor was proposed to address "the current and forecasted population growth within the county," it would not increase the amount of skyglow, as the same traffic would be traveling through St. George on different routes. Due to the potential localized effect of glare on views within the NCA, the following text was added to the EIS and the Visual Impact Analysis Technical Report for Alternative 2, "Night-time views within the NCA may be locally affected by glare generated by vehicle headlights along the new road." In addition, the exact wording from the 2015 RMP was added to both the EIS and the technical report: "Even within the deeper canyons of the Red Mountain and Cottonwood Wilderness areas, the municipal 'glow' is clearly evident and much of the night sky is obscured. The cities of St. George, Hurricane, Ivins, Santa Clara, and Leeds all emit nighttime light that impacts the NCA (BLM 2015)."</p>
H.65-235	<p>It is concerning that the DEIS claims that Alternative 5, located outside of the NCA would have long-term adverse visual impacts (DEIS at 3-113), when Alternative 3 which travels through portions of the Red Cliffs NCA with VRM Class II scenery is characterized as having only long term "primarily" adverse visual impacts. The statement that Alternative 5 would have long-term adverse visual impacts appears to be biased in favor of Alternative 3, and does not correspond with analysis showing that Alternative 5 would adversely impact only 24 acres of Grade A Red Cliff Sandstone rated as highly sensitive.</p>	<p>Map 1-5 (Red Cliffs National Conservation Area VRM Classes) in the Visual Impact Analysis Technical Report shows the proposed alternatives traveling through VRM Class III lands, not VRM Class II lands. The comment may be referring to Map 1-3 in the Technical Report, which depicts VRI classes rather than VRM classes.</p> <p>The EIS states "primarily adverse" impacts for Alternatives 2 and 4, as well as for Alternative 3, because drivers on the new road within the NCA would have closer views of the tall, vivid red cliffs and Pine Valley Mountains north of the Green Springs residential area, as well as mountain views near the connection with Red Hills Parkway, which would not be an adverse impact. Because Alternative 5 would follow an existing route, no such beneficial effects for drivers would occur.</p>

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H.65-501	3. Starry night skies and natural darkness are important components of National Conservation Lands. Many NCAs are some of the last remaining harbors of darkness and provide excellent opportunities for the public to experience this endangered resource. The Red Cliffs NCA is adjacent to one of the fastest-growing metro areas in the nation. The DEIS must analyze impacts of light pollution on the residents of Green Springs, on wildlife (including bats and nocturnal animals), and on visitors to the NCA. Addressed in DEIS: Not adequately addressed. The DEIS only discloses that roadway lighting and vehicle lights would draw attention to the alignment at night for residents at the north end of Green Springs. It failed to analyze the impacts to human health and the experience of dark night skies.	Refer to responses to H.65-170 and H.65-172.
H.65-502	4. Starry skies are important to Washington County residents who are actively working to combat light pollution and gain Dark Sky status for their cities. The towns of Virgin, Rockville, Springdale and Ivins are engaged in these efforts in order to benefit wildlife, health, economy, heritage and posterity. Dark night skies are integral to the historical fabric of Washington County. As light pollution from urbanized areas in Washington County increases, the idea of protecting remaining dark skies increases. The DEIS must analyze the NCH related impacts loss of starry skies will cause to the community. Addressed in DEIS: No.	Refer to responses to H.65-170 and H.65-172.
H.65-503	5. Light pollution is visible from many locations within the NCA already, even in the Cottonwood Canyon and Red Mountain Wilderness Areas. Introducing a 4-lane highway will only increase this light pollution. Addressed in DEIS: No.	Refer to responses to H.65-170 and H.65-172.

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H.65-504	<p>6. Unshielded highway lights would have an especially large impact on residents of the Green Springs whose homes are located between 700 and 1500 feet of the highway. Artificial light is known to suppress the hormone melatonin and increase the risk for certain types of cancers and Type II Diabetes. Addressed in DEIS: No.</p>	<p>The BLM has reviewed the concerns expressed in the comment. Based on this review, the BLM determined that additional analysis or disclosures in the EIS was not necessary to address this concern.</p> <p>As described in Section 2.2.9 of the EIS, UDOT submitted a revised POD to the BLM between the publication of the Draft and Final EIS. The revised POD included measures to address highway lighting, should a ROW be issued. Specifically, “Lighting installation within the ROW would be minimized to only emergency lighting where the roadway crosses the NCA, except where additional lighting is necessary near intersections or other areas that would support safety and proper visibility for vehicles and pedestrians.”</p> <p>Appendix D also contains the design features of the proposed action and mitigation measures and conditions of approval. One of the design features states “Any lighting proposed for the roadway will be designed to reduce impacts to dark night skies,” which references a Red Cliffs NCA RMP best management practice (BMP). That BMP states, “Impacts to dark night skies will be prevented or reduced through the application of specific mitigation measures identified in activity level planning and National Environmental Policy Act (NEPA) level review. These measures may include directing all light downward, using shielded lights, using only the minimum illumination necessary, using lamp types, such as sodium lamps (less prone to atmospheric scattering), using circuit timers, and using motion sensors.”</p>
H.65-506	<p>8. The DEIS must analyze the degree to which light pollution already impacts locations throughout the NCA and how light from the NCH would add to this baseline. Addressed in DEIS: No.</p>	<p>The visual resources cumulative impacts analysis has been updated to address night skies.</p>

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Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-515	1- BLM must analyze the direct, indirect; and cumulative impacts of the proposed ROW and NCH to visual resources. BLM must consider alternatives that do not degrade the current level of visual resources on affected public lands. VRM Class II areas must be managed to retain the existing character of the landscape and management activities in VRM Class III areas may only moderately change the character of the landscape. (85). Addressed in the DEIS: No.	The analysis contained in the EIS does consider direct, indirect, and cumulative impacts, as well as alternatives that are not located on public lands, specifically Alternatives 5 and 6. Map 1-5 (Red Cliffs National Conservation Area VRM Classes) in the Visual Impact Assessment Technical Report shows the proposed alternatives traveling through VRM Class III lands, not VRM Class II lands. The comment may be referring to Map 1-3 in the Technical Report, which depicts VRI classes rather than VRM classes. Furthermore, the EIS notes that the proposed NCA alternatives “would not conform to the RMP’s VRM Class III objective because the highway would dominate the view of the casual observer throughout the majority of the alignment.”
H.65-516	2- The DEIS must address NCH impacts to viewshed, scenery and designated wilderness, and must consider VRM management objectives. (85). Addressed in the DEIS: No.	The EIS does address impacts to viewshed and scenery and considers VRM management objectives. For example, Table 7 and associated text in the Visual Impact Analysis Technical Report documents impacts to scenic quality and recreational users under Alternative 2. The entire analysis discusses impacts to the landscape and views, which are synonymous with scenery and viewshed. Regarding impacts on designated wilderness, refer to responses to H.65-170 and 172.
H.65-517	4-NCH Mitigation Measures: Describe the NCH mitigation measures that would be used within the avoidance area consistent with VRM objectives and the purpose of the NCA (43). Addressed in the DEIS: No. Visual Resource Impacts Experienced from Trails	The mitigation listed in Table 5 of the Visual Impact Analysis Technical Report, such as retaining and enhancing vegetation, will reduce impacts to a certain extent based on location. Appendix D of the EIS contains the complete list of design features for environmental protection, as well as applicable best management practices identified in the Red Cliffs NCA RMP. The BLM is not required to mitigate all impacts. Some impacts would remain adverse depending on location, as disclosed in the EIS.

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-518	<p>1-The DEIS must address NCH impacts to scenery and visitor experience on the 9 trails listed above:</p> <ul style="list-style-type: none"> <li>• Mustang Pass</li> <li>• Ice House</li> <li>• Cottontail</li> <li>• Middleton Powerline</li> <li>• T-bone</li> <li>• Pioneer Hills</li> <li>• Pioneer Rim</li> <li>• City Creek</li> <li>• Owen's Loop (89).</li> </ul> <p>Addressed in the DEIS: No. Some trails and locations were chosen as KOPs, but inclusion involved no discussion of impacts to scenery or visitor experience.</p>	<p>BLM Manual 8431 outlines the process to identify KOPs for project-level analysis, focusing on the most critical viewpoints. For linear projects such as the Northern Corridor, KOPs are also selected to depict typical views encountered in representative landscapes and any special project or landscape features. The Visual Impact Analysis Technical Report prepared for this project includes simulations and KOP impact analyses for the T-Bone Trail, Red Hills Parkway multi-use path looking east, Red Hills Parkway multi-use path looking north, City Creek Trail looking northeast, Cottontail Trail west of Green Springs residential area, Icehouse Trail, Pioneer Rim Trail, City Creek Trail, and Pioneer Park. These viewpoints were selected as representative of trails that would experience similar views. Under Alternative 2, the report states “Sensitive viewers that would be most impacted include residents at the northern end of the Green Springs residential area and users of nearby trails (i.e., Icehouse, Mustang Pass, Cottontail, and Middleton Powerline), users of the City Creek trail system and the T-Bone Trail, drivers on Cottonwood Springs Road at the proposed intersection, and drivers on Red Hills Parkway and users of the adjacent multi-use path at the proposed interchange.” The description of impacts to those users describes the effects to their experience.</p> <p>Table 7 and associated text in the report document impacts to scenic quality and recreational users. For example, the text under Alternative 2 states, “this alternative would adversely impact areas with high scenic quality and high sensitivity that comprise the VRI Class II through which the alignment would pass due to changes to landform, vegetation, and color, and impacts to sensitive users, including recreational visitors, nearby residents, and users of the highway.” The text clearly describes impacts to scenery. In addition, the entire analysis discusses impacts to the landscape and sensitive viewers, which are synonymous with scenery and visitors.</p>

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Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-519	<p>2- The DEIS must address cumulative NCH/Washington Parkway Extension impacts to scenery and visitor experience on the 6 trails listed above:</p> <ul style="list-style-type: none"> <li>• Mill Creek</li> <li>• Bone Wash</li> <li>• Elephant Arch</li> <li>• Sand Hill</li> <li>• Dino Cliffs</li> <li>• Grapevine (91).</li> </ul> <p>Addressed in the DEIS: No.</p>	<p>Section 3.28 of the EIS analyzes cumulative effects associated with KOPs representing trail users, as well as how past, present, and reasonably foreseeable future actions would impact scenery.</p>
H.65-543	<p>16. Mitigation measures, if any, for damage to visitor experience of natural quiet, dark night skies, solitude and exposure to natural landscapes. Addressed in the DEIS: No.</p>	<p>Refer to responses to H.65-170, H.65-172, H.65-504, and H.65-517.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-609	<p>I I-Scenic Values related to tourism and major events: The DEIS must address NCH related impacts to scenic values, including the following impacts, concerns and issues listed below in items 1 -2: (122)</p> <p>Addressed in DEIS: No</p> <ol style="list-style-type: none"> <li>1. The DEIS should incorporate analysis of market and nonmarket values related to the scenic values of the Red Cliffs NCA.</li> <li>2. The scenic beauty of our public lands in Washington County is world-renowned and drives our economy, providing thousands of jobs in hospitality and tourism.</li> </ol> <p>Red cliffs circle our community and support our transition to a future grounded in tourism and outdoor recreation, an industry that provided 110,000 direct jobs and \$3.9 billion in wages in the state of Utah in 2017. The St. George Area Sports Commission calculated that in 2017, 42 major athletic events brought more than 62,000 participants and over 116,000 out of town visitors to the area resulting in \$78 million in direct economic impact. Iron Man 70.3 brought in \$7 million in 2017. In 2018, the Huntsman World Senior Games had an estimated \$17 -million economic impact. In 2017, the St. George Marathon brought in \$3.2 million from athletes and their entourages spending \$175 per day in our community. All of these major athletic events appeal to participants with advertising that features the Red Cliffs area.</p>	<p>The EIS and the Visual Impact Analysis Technical Report state that Alternative 2 “would provide views of Red Cliffs NCA for the travelers expected to use the proposed roadway itself and the adjacent trail. These travelers would have closer views of the tall, vivid red cliffs and Pine Valley Mountains north of the Green Springs residential area, as well as mountain views near the connection with Red Hills Parkway.” This statement is true of Alternatives 3 and 4 as well. All of the proposed NCA alternatives would potentially provide tourists with closer views of the NCA, particularly those with mobility issues or limited time, resulting in a beneficial impact to those visitors. The trail that would parallel the NCA alternatives would also provide new recreation and scenic viewing opportunities for tourists as well as locals.</p> <p>The agencies included a socioeconomic impacts analysis in Section 3.26 of the EIS. This analysis recognizes the importance of tourism to the local economy. Based on the analysis completed by the agencies, impacts on future tourism is not anticipated as a result of the actions analyzed in the EIS.</p>

**0.3.34 Water Resources**

<b>Letter #- Comment # or Public Concern Statement #</b>	<b>Comment</b>	<b>Response</b>
A.41-3	<p>The Draft EIS briefly mentions an existing dam or debris diversion structure at the intersection of City Creek and Red Cliff Parkway (in Section 2.4.2.4). There is no impact analysis or discussion of this structure in the Draft EIS water quality section, even though it intersects with proposed actions for Alternative 2 and 3. The EPA recommends that the Final EIS include a discussion on how project activities may extend into this debris retention area and the potential impacts that these alternatives may have to these structures, water quality and groundwater-dependent ecosystems.</p>	<p>Section 3.11.2.3 of the EIS describes the impacts to Alternatives 2, 3, and 4, which would result in increased runoff from impervious surfaces, and adjusted flow patterns to accommodate collection and conveyance of additional runoff to detention facilities equipped with outlet devices that trap floatables, oils, and other impurities; this would be used to provide water quality treatment and detain outflow rates to existing conditions. It is anticipated that major drainage crossings will be conveyed across the ROW without detainment.</p> <p>The proposed implementation of these described best management practices (BMPs) would provide water quality treatment and limit flow rates; therefore, the existing debris basin would see no impact from the proposed alternatives. There is a chance that some debris could potentially be collected in the proposed detention facilities associated with the Northern Corridor, in which case the existing debris basin may see reduced amounts of debris and associated maintenance.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-308	<p>The DEIS indicates that alternatives 2, 3 and 4 would have impacts to water resources while alternative 5 and 6 would not impact water resources except where modifications are made to the roadways, particularly at tie-ins to I-15.</p> <p>"Impacts to water resources from Alternatives 2, 3, and 4 are similar in nature but vary based on topographical impacts, on flow patterns, and overall length of alignment. All three of these alternatives would result in increased runoff from impervious surfaces, and adjusted flow patterns to accommodate collection and conveyance of additional runoff to detention facilities equipped with outlet devices that trap floatables, oils, and other impurities; this would be used to provide water quality treatment and detain outflow rates to existing conditions. It is anticipated that major drainage crossings will be conveyed across the ROW without detention." DEIS at 3-93</p> <p>The DEIS was required, but failed to, also address how each proposed alternative would fair under climate change scenarios. However, one can extend the logic of the impacts of ROW alternatives and conclude that alternatives 5 and especially 6 would have the least impacts under a climate change scenario and should be the recommended alternatives.</p>	<p>The statement regarding potential impact of climate change on water resources was added to Cumulative Effects Section 3.28.1.10.</p>
A.25-46	<p>Table 3.11-1: It seems odd that after specifically defining the hydrologic soil groups A through D that the table would include a group that's listed as "unclassified" and which includes the largest percentage of soil in both the proposed HCP Plan Area and Zone 6.</p>	<p>This table is based on best available United States Geological Survey Soil Survey Data, which includes "Unclassified" for hydrologic soil group for portions of the area.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
A.41-4	<p>There is a watershed divide that goes through the Red Cliffs NCA where topographically half of the project area drains to the Santa Clara River and the other half drains to the Virgin River. The Virgin River is impaired based on salt, toxic inorganic chemicals, aquatic life, and temperature and the Santa Clara River is impaired because of metals, toxic inorganic chemicals, salts, temperature and aquatic life. Since infiltration is low and runoff is high area may be potential for Alternatives 2, 3 and 4 to influence hydrocarbon, salt, chemical, and sediment concentrations down-slope in this area of impairment. To best inform the decision-maker and the public, the EPA recommends that an impact analysis for these impaired rivers be included in the Final EIS and prior to BLM's decision.</p>	<p>Section 3.11.2.3 of the EIS describes the impact to water resources from Alternatives 2, 3, and 4 based on topographical impacts, on flow patterns, and overall length of alignment. All three of these alternatives would result in increased runoff from impervious surfaces and adjusted flow patterns to accommodate collection and conveyance of additional runoff to detention facilities equipped with outlet devices that trap floatables, oils, and other impurities; this would be used to provide water quality treatment and detain outflow rates to existing conditions. It is anticipated that major drainage crossings will be conveyed across the ROW without detainment.</p> <p>The proposed implementation of these described BMPs would provide water quality treatment and limit flow rates. Detention Pond BMPs will follow the UDOT Stormwater Quality Design Manual, which is designed for compliance with UDOT's statewide MS4 permit. This criteria requires onsite retention of the 85th percentile 24-hr (Water Quality) storm. The intent is that any pollutants in the water quality event would be retained and not contribute to downstream impairment. Larger events would bypass retention facilities, but increased volume would result in low pollutant concentration without a discernable contribution to downstream receiving waters. Therefore, it is not anticipated that the proposed alternatives would further contribute to water quality impairment in the Virgin and Santa Clara Rivers.</p>
H.65-508	<p>2- Please include the following reports in your analysis: a- THE NAVAJO AQUIFER SYSTEM OF SOUTHWESTERN UT AH Geological Society of America 2002 Rocky Mountain Section Annual Meeting Cedar City, Utah May 6, 2002. <a href="https://pubs.usgs.gov/of/2002/0172/pdf/chap3.pdf">https://pubs.usgs.gov/of/2002/0172/pdf/chap3.pdf</a> b- Highway Runoff Quality, Environmental Impacts and Control. <a href="https://www.sciencedirect.com/science/article/pii/S0166111608700839">https://www.sciencedirect.com/science/article/pii/S0166111608700839</a> Addressed in the DEIS: No.</p>	<p>The analysis methods used and described in Section 3 are standard practice and widely accepted for water resources analysis in the region.</p> <p>The cited publications have been reviewed, and while they appear to have good information, we do not believe that use of them in analysis would significantly improve analysis or lead to change in the decision-making process.</p>

Letter #- Comment # or Public Concern Statement #	Comment	Response
H.65-509	<p>3- Impacts to water resources: We specifically request BLM include the following analysis of items 1 - 8 in its DEIS: 1. How will the construction of the proposed NCH maintain soil stability, minimize wind and water erosion, and ensure that road-building surface disturbances do not increase sedimentation to waterways of the Virgin River watershed? 2. Where will construction water for the highway will come from, and how many gallons or acre-feet per month. Will groundwater be pumped in area wells for use in construction, or will water be trucked in from another source? 3. All streams, dry washes, springs, seeps, and riparian areas that will be directly, indirectly, or cumulatively impacted by the NCH must be mapped and examined. 4. BLM must identify and discuss all avoidance measures, mitigation measures, and best management practices to prevent significant impacts to these water resources. 5. BLM must complete a conceptual groundwater model of quantity recharge of springs, seeps, and surface flows within and adjacent to the NCA, and BLM must examine and discuss this model as a basis for an impact analysis for the NCH. 6. BLM must examine and discuss how will climate change potentially affect precipitation and groundwater in the area? 7. BLM must also describe how the NCH will be built to weather flash floods and surface water flow through washes, canyons, and sheet flow across the desert during extreme storm events, so that natural resources in the NCA are not damaged. Will the construction of a highway through this desert result in significant impacts to natural resources due to flash flood damage? Culverts should be described in detail, with respect to size and design, to avoid flood debris clogging, blow-outs, and damage to highway infrastructure which could impact adjacent natural resources. Culvert design should consider how best to potentially facilitate movement of tortoises and other wildlife species under the NCH in both directions. Species isolated to limited habitats by the NCH are likely to suffer from inbreeding depression over time that may lead to localized extirpation. 8. The analyses of hydrology and water quality need to identify and analyze all of the project's impacts. The DEIS must include avoidance,</p>	<p>Section 3.11.2.3 of the EIS describes impacts to water resources from Alternatives 2, 3, and 4, which are similar in nature but vary based on topographical impacts, on flow patterns, and overall length of alignment. All three of these alternatives would result in increased runoff from impervious surfaces and adjusted flow patterns to accommodate collection and conveyance of additional runoff to detention facilities equipped with outlet devices that trap floatables, oils, and other impurities; this would be used to provide water quality treatment and detain outflow rates to existing conditions. It is anticipated that major drainage crossings will be conveyed across the ROW without detainment.</p> <p>The proposed implementation of these described BMPs would provide water quality treatment and limit flow rates. Detention Pond BMPs will follow the UDOT Stormwater Quality Design Manual, which is designed for compliance with UDOT's statewide MS4 permit. This criteria requires onsite retention of the 85th percentile 24-hr (Water Quality) storm. The intent is that any pollutants in the water quality event would be retained and not contribute to downstream impairment. Larger events would bypass retention facilities, but increased volume would result in low pollutant concentration without a discernable contribution to downstream receiving waters. Therefore, it is not anticipated that the proposed alternatives would further contribute to water quality impairment in the Virgin and Santa Clara Rivers.</p> <p>Standard BMPs would be implemented during construction to manage runoff, erosion, and sediment control. A Stormwater Pollution Prevention Plan (SWPPP) will be prepared outlining the BMPs for use based on the final design and construction phasing of alternatives.</p> <p>In addition to onsite flows, Section 3.11.2 of the EIS indicates that existing cross-drainages will be sized and designed to convey existing flows across the corridor as determined in final design. The final design phase would occur if a proposed action is selected in the ROD and the</p>

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	<p>minimization and, if necessary, mitigation measures, to offset any impacts.                      Addressed in the DEIS: Not adequately addressed. The DEIS failed to address how construction of the NCH could be completed in a way that doesn't increase erosion and runoff; it failed to disclose where construction water for the highway would come from; it failed to complete a conceptual groundwater model of quantity recharge of springs, seeps, and surface flows within and adjacent to the NCA; it failed to discuss how climate change potentially affect precipitation and groundwater in the area; and it failed to discuss avoidance, minimization and, if necessary, mitigation measures, to offset adverse impacts to hydrology and water quality.</p>	<p>applicant, UDOT, moves forward with the final design of the proposed action.                      Statement regarding potential impact of climate change on water resources is added to Cumulative Effects, Section 3.28.1.10.                      Section 1.11.1 of the EIS describes groundwater, and the fact that groundwater patterns are not known with the analysis area. Additionally, no known springs or seeps were identified in the analysis area.</p>
H.65-510	<p>4- Impacts to watershed: The DEIS must address NCH impacts related to wildfire, erosion, increased sedimentation, runoff and heavy metals to all ephemeral washes, creeks, and streams in the project area.                      Addressed in the DEIS: Not adequately addressed. The DEIS failed to wildfire-related impacts to the watershed.</p>	<p>Section 3.22 of the EIS addresses wildfires.                      Section 3.11.1 of the EIS describes the affected environment pertaining to water resources, and tabulates the hydrologic soil classification that impacts runoff potential of an area. Using the Natural Resources Conservation Service (NRCS) Hydrologic runoff model stated in this section, the impact of wildfires on runoff potential is based on quality and density of vegetative cover, which is described in Section 3.2 of the EIS. Impacts of wildfires on current and future runoff potential would be based on a combination of vegetative condition and hydrologic soil group, and actual runoff rates would be calculated at time of final design. Section 3.11.2 of the EIS indicates that existing cross-drainages (flow that would be influenced by wildfires) will be sized and designed to convey existing flows across the corridor as determined in final design.</p>

**0.3.35 Wetlands, Floodplains, and Waters of the U.S.**

<b>Letter #- Comment # or Public Concern Statement #</b>	<b>Comment</b>	<b>Response</b>
A.21-6	<p>Given the agencies' detailed review, BLM and USFWS should consider including additional discussion regarding the process the agencies took to review wetlands and WOUS. For example, the DEIS states that only ephemeral washes were identified within the ROW for each alternative and the DEIS treats these features as WOUS. However, under the Navigable Waters Protection Rule, finalized April 21, 2020, and effective June 22, 2020, ephemeral features are excluded from federal jurisdiction. Because ephemeral washes are the only WOUS identified, if the DEIS analysis used the current regulatory definition, Alternative 3 (and all Northern Corridor alternatives) would have no impact on WOUS. Thus, the DEIS potentially overstates impacts to WOUS. Further, to the extent the Proposed Action does effect WOUS, those impacts would be addressed through the Clean Water Act permitting process.</p>	<p>The BLM has revised Section 3.10 of the EIS to clarify how the finalization of the Navigable Waters Protection Rule may affect the determination of which features may be identified as Waters of the U.S. (WOUS). The delineation of potentially jurisdictional WOUS used for analysis in the EIS was completed using the regulatory framework that was in place at the time the aquatic resources delineation was completed. As described in the EIS, ephemeral washes are no longer considered jurisdictional under the Navigable Waters Protection Rule, which was effective June 22, 2020, after the publication of the Draft EIS.</p>
H.65-307	<p>The DEIS failed to analyze how each of the ROW alternatives for the NCA would interact with and exacerbate the effects of climate change on the impacts to wetland and waters of the United States. The DEIS does state that Alternative 6 would result in no impacts to wetlands or WOUS, and therefore, extending that logic, alternative 6 would have the least multiplier effects of climate change and should be the alternative selected.</p>	<p>Additional information regarding the potential impacts of climate change in addition to the project and other past, present, and reasonably foreseeable future actions on wetlands, WOUS, and floodplains has been included in Section 3.28.1.9 of the EIS.</p>

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