



December 14, 2020

To: via electronic submission: <https://eplanning.blm.gov/eplanning-ui/project/1502103/570/8001849/comment>
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via paper: BLM St. George Field Office, 345 East Riverside Drive, St. George, UT

Cc: Agency management, staff and consultants (see below)

Re: Protest of the Northern Corridor Final Environmental Impact Statement and Proposed Resource Management Plan Amendments

Attachment: Protest of the Northern Corridor Final Environmental Impact Statement and Proposed Resource Management Plan Amendments Submitted to the BLM and USFWS by the Red Cliffs Conservation Coalition

Please accept the attached timely protest of the Bureau of Land Management Utah State Office Proposed Resource Management Plan and Final Environmental Impact Statement (Proposed RMP/FEIS), submitted by The Red Cliffs Conservation Coalition (Coalition) as the protesting party. The attached document identifies the coalition members and contact information as required in 43 C.F.R. § 1610.5-2(2)(i). The Coalition submitted comments covering all issues raised herein that were germane at the time, as required by 43 C.F.R. § 1610.5- 2(2)(iv). Issues raised herein for the first time are limited to those that resulted from changes to the Proposed Action and accompanying documents, and other new information.

The Coalition has and will continue to participate in this planning process, starting with scoping comments for the Draft 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, Washington County, UT submitted on January 6, 2020; followed by comments on the Draft RMP Amendments and EIS submitted September 10, 2020; and requests for a supplemental DEIS covering issues identified in the interim period, all of which are incorporated in the attached protest by reference, along with their respective exhibits and attachments.

All parties participating in the Coalition care deeply about the proper management and conservation of National Conservation Lands, federally-listed species, designated critical habitats, and Congressionally-established National Conservation Area objects and values covered by the RCNCA and SGFO Proposed RMPs/FEIS, and have been integrally involved in the efforts that resulted in the Proposed RMPs and FEIS.

This protest is filed in accordance with 43 C.F.R. § 1610.5-2 and details the following issues:

1. The FEIS Does Not Comply with NEPA
2. The Proposed RMP Amendments Will Allow a New Highway, Violating OPLMA
3. The Proposed RMP Amendments Will Allow a New Highway, Violating LWCF
4. The Proposed RMP Amendments Will Allow a New Highway, Violating FLPMA
5. The Proposed RMP Amendments Will Allow a New Highway, Violating the ESA

The detailed description of each of these issues in the attachment states why we believe the BLM's decisions are wrong and identifies corresponding portions of the Proposed RMP/FEIS at issue, as well as our requested remedy for each issue addressed.

The attachment also summarizes the degree to which the Final EIS addresses the issues we identified in the Draft EIS.

Thank you for your attention to the points raised herein. We look forward to receiving your prompt response, as required by 43 C.F.R. §1610.5-2(a)(3).

A handwritten signature in black ink, appearing to read 'TB', with a long horizontal line extending to the right.

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Protest of the Northern Corridor Final Environmental Impact Statement and Proposed Resource Management Plan Amendments Submitted to the BLM and USFWS by the Red Cliffs Conservation Coalition

Submission media and addresses:

Electronically via the “protest” portal: <https://eplanning.blm.gov/eplanning-ui/project/1502103/570/8001849/comment>

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Paper delivered to BLM St George Field Office

NEPA Project Number: DOI-BLM-UT-C000-2020-0001-RMP-EIS

Submission date: December 14, 2020

Red Cliffs Conservation Coalition Member Organizations

Basin and Range Watch
Back Country Horsemen of America - Utah
Center for Biological Diversity
Conservation Lands Foundation
Conserve Southwest Utah
Defenders of Wildlife
Desert Tortoise Council
Great Old Broads for Wilderness
Sierra Club - Utah
Southern Utah Wilderness Alliance
The Wilderness Society
Utah Audubon Council
Utah Native Plant Society
Western Watersheds Project
WildEarth Guardians

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1. The Red Cliffs Conservation Coalition Descriptions and Signatories

The Red Cliffs Conservation Coalition is an informal organization of conservation groups representing millions of citizens with a long and deep history of concern for the conservation of public lands in general, National Conservation Lands in particular, and the species that inhabit them, especially those species that have been listed as threatened or endangered via the Endangered Species Act. The Coalition was very active in developing Scoping Comments¹ for this Draft Environmental Impact Statement and related proposals addressed by this public comment period, and its members submitted over 20,000 letters of comment. These organizations are comprised by-in-large of volunteer citizens, many of whom live in Washington County and in Utah. Even those members from other states have a deep connection with the concept of protecting public lands and habitat for species, especially those that are threatened by human activity. Each member organization and its interest in protecting Red Cliffs National Conservation Area is described below.

Basin and Range Watch

Basin and Range Watch is a 501(c)(3) non-profit working to conserve the Great Basin and Mojave Desert regions and to educate the public about the diversity of life, culture, and history of the ecosystems and wild lands of the desert.

Back Country Horsemen of America

Utah Back Country Horsemen Southwest Chapter was formed in December 1995 in response to Snow Canyon State Park's indication that equestrian use would be discontinued within the park. Adopting the missions of Back Country Horsemen gave us the backing of the state, Back Country Horsemen of Utah, and Back Country Horsemen of America. We have five specific mission statements that dictate a very narrow focus – keeping trails open for pack and saddle stock – through service work, education on the wise and sustainable use of America's public lands and advocacy in local, state and national levels. We changed our name to Back Country Horsemen of Utah – Southwest Chapter in 2011. We have been involved in advocacy to defend the Red Cliffs National Conservation Area since 2018.

Center for Biological Diversity

The Center for Biological Diversity is a national non-profit organization dedicated to the protection of native species and their habitats through science, policy, and environmental law. The Center has over 1.7 million members and on-line activists including approximately 500 members who reside in Utah. The Center's members and staff have visited the federal public lands within the Red Cliffs National Conservation Area and intend to continue to do so for hiking, camping, viewing and studying wildlife, photography, and other vocational and recreational activities. The Center has worked to protect rare species and their habitats found on federal public lands in Utah, including Mojave desert tortoise, Mexican Spotted Owl, northern goshawk, spotted bat, Southwestern willow flycatcher, yellow-billed cuckoo, California condor, Navajo sedge, Colorado pikeminnow, bonytail chub, humpback chub, and razorback sucker and intends to continue to do so. The proposed Northern Corridor Highway could adversely impact some of those species and their habitats.

Conservation Lands Foundation

Conservation Lands Foundation (CLF) is a non-profit organization that promotes environmental conservancy through support of the National Landscape Conservation System (National

¹ Red Cliffs Conservation Coalition Scoping Comments

Conservation Lands) and preservation of the outstanding historic, cultural, and natural resources of those public lands. CLF works to protect, restore, and expand the National Conservation Lands through education, advocacy, and partnerships.

CLF achieves its mission by working with and supporting the Friends Grassroots Network (FGN). The FGN consists of over 60 organizations located in 13 states, to foster and implement a national strategy to promote the protection of the National Conservation Lands. Organizations within the FGN and their members organize and conduct a wide range of conservation-related activities, including clean-up projects, trail maintenance and rebuilding, riverbank and stream restoration, removal of invasive species, closure of illegal roads, water quality monitoring, enhancement of wildlife habitat, and improvement of recreational access. CLF worked with BLM during development of the current Red Cliffs National Conservation Area Resource Management Plan.

Conserve Southwest Utah

Conserve Southwest Utah (CSU) is a grassroots non-profit group of citizens advocating conservation of our natural resources, headquartered in Washington County, Utah. CSU was established in 2006 as Citizens' for Dixie's Future (CDF) after the Washington County Growth and Conservation Act was introduced because of concerns, in large part, that there was a provision for a highway through the Red Cliffs Desert Reserve. This bill was the first official mention of a Northern Corridor in support of private interests that wanted a highway to the Ledges development north of St George. CSU worked tirelessly on revisions to the bill that resulted in the highway being taken out of bill and designation of the Red Cliffs National Conservation Areas in the 2009 Omnibus Public Lands Management Act (OPLMA).

Concurrently, CSU was instrumental in developing, with support of Utah's Congressional Delegation, a set of smart growth principles known as Vision Dixie to guide the growth in Washington County in a way that would also conserve natural and cultural resources. Many CSU members and supporters live near and recreate on public lands in Washington County, Utah. These lands provide unique opportunities for sightseeing, hiking, camping, trail running, mountain biking, appreciation of archaeological resources and natural quiet, journaling, birdwatching, ecosystem research, photography and more. CSU has longstanding involvement with HCP related issues, including attending Habitat Conservation Advisory Committee and Technical Committee meetings, and providing comments at some of those meetings. CSU led testimony and discussions with congressional committees and members of congress in Washington DC at significant expense in time and money related to proposed federal legislation permitting the Northern Corridor Highway, successfully stopping the proposed legislations.

Conserve Southwest Utah's 2,000 members participate in annual stewardship and habitat restoration activities in and adjacent to the Red Cliffs NCA. Our staff and board members provide guided hikes, outreach, education and advocacy training focused on the Red Cliffs NCA to over 2,500 community members, including school children, every year.

Since 2012, Conserve Southwest Utah has partnered with BLM to organize the Southwest Utah National Conservation Lands Friends (SUNCLF) group. SUNCLF functions as Washington County's only boots-on-the-ground volunteer organization dedicated to stewardship of the Red Cliffs and Beaver Dam Wash NCAs. SUNCLF volunteers in the site steward program donate hundreds of hours each year to monitoring archaeological sites on BLM lands in Washington County, including in the Red Cliffs NCA.

Through citizen involvement, CSU has successfully stopped 7 previous attempts by the County to have the highway approved.

Defenders of Wildlife

Defenders of Wildlife (Defenders) is a national non-profit conservation organization that conserves and restores native species and the habitat upon which they depend. Based in Washington, DC, the organization maintains six regional field offices, including one in the Southwest United States. Defenders is deeply involved in public lands management and wildlife conservation, including the protection and recovery of flora and fauna on the mesas and canyonlands of southern Utah. We submit these comments on behalf of more than 1.8 million members and supporters nationwide, including 13,725 members in Utah.

Desert Tortoise Council

The Desert Tortoise Council (Council), comprised of members from throughout the United States, works to achieve its mission statement, which paraphrased, is to protect wild desert tortoises in their native habitats, including tortoises in the Red Cliffs Desert Reserve/NCA (herein, "Reserve"). The Council has proactively opposed the development of the Northern Corridor (NC) in letters dated 5/15/2018 (Desert Tortoise Council 2018a), 8/12/2018 (Desert Tortoise Council 2018b), and 7/4/2019 (Desert Tortoise Council 2019).

Additionally, Board member, Ed LaRue participated in a five-member team visit to Washington, D.C. in September, 2018, where he and others met with eight Members of Congress and/or their staffs to oppose the construction of the highway through the Reserve/NCA. Most recently, on 5/30/2019, LaRue participated in a field trip to the Reserve/NCA and proposed Zone 6 areas with local members of the Shivwits Band of the Paiute Indian Tribe of Utah and Cameron Rognan of Washington County HCP to discuss impacts and mitigation associated with the proposed NC.

Great Old Broads for Wilderness

The Southwest Utah Broadband, the local chapter of the Great Old Broads for Wilderness has been actively involved with the Red Cliffs Desert Reserve/Red Cliffs National Conservation Area since 2015. Many of our members have attended stewardship and habitat restoration projects in Red Cliffs and have been involved with trail monitoring. We worked with partner organizations to support the 2016 Resource Management Plan

Sierra Club - Utah Chapter

The Utah Chapter of the Sierra Club is a grassroots organization striving to protect and enjoy Utah's outdoors and natural landscapes; educate and advocate for the responsible preservation of clean air, water, and habitats; support the development of clean energy to benefit present and future generations; and advance principles of equity, inclusion, and justice throughout our organization and community.

Southern Utah Wilderness Alliance

The Southern Utah Wilderness Alliance (SUWA) has a long-standing interest in the management of Bureau of Land Management (BLM) lands in Utah and regularly participates in the decision-making process for land use plans and site-specific proposals around the state. SUWA members and staff enjoy a myriad of activities on the public lands managed by BLM, including hiking, biking, nature viewing, photography, and quiet contemplation in the solitude offered by wild

places. SUWA is particularly interested in decisions that could affect threatened species and lands in the Red Cliffs National Conservation Area.

The Wilderness Society

The Wilderness Society and our members have a deep interest in the protection and management of the RCNCA. The Wilderness Society was heavily involved in the passage of the Omnibus Public Land Management Act of 2009 (OPLMA) and especially engaged in the Washington County Lands section of that Act. It is the position of The Wilderness Society that the negotiations made in that bill and passed into law were a momentous achievement on behalf of conservation and the interests of Washington County, which should be honored as such.

Utah Audubon Council

Utah Audubon Council is comprised of the leadership of the four Utah Audubon organizations affiliated with the National Audubon Society. UAC conducts policy analysis and advocacy on behalf of and in conjunction with Great Salt Lake Audubon, Wasatch Audubon, Bridgerland Audubon, and Red Cliffs Audubon, and their 2,000 members statewide.

Commenting for the scoping process for the Northern Corridor EIS is clearly within the mission of the National Audubon Society and local affiliates, which states “Audubon protects birds and the places they need, today and tomorrow “, and each of the individual societies in Utah have advocated for the establishment and/or protection of the bird and wildlife habitat within the desert tortoise reserve at various times in the past. Our members recreate and provide research and volunteer on habitat protection and improvement projects within the area that would be impacted by the highway project under consideration, and many live in the community that will be directly affected.

Utah Native Plant Society

The Utah Native Plant Society (UNPS) signs onto this coalition response with respect to issues involving native plants and their ecosystems. UNPS is a 501(c)(3) qualified Utah non-profit organization which was initially incorporated in 1978. UNPS has some 400 members and has had many past and current chapters throughout the state of Utah including in southwestern Utah. UNPS is dedicated to the appreciation, preservation, conservation and responsible use of the native plant and plant communities found in the state of Utah and the Intermountain West. This has included some extensive involvement in rare plant and invasive species issues in Washington County including our having provided research funding for the study of various rare plants found only in Utah in Washington County starting in the 1980's, and later also with respect to their pollinators, and much more. We first in fact engaged the state of Utah in providing some preliminary protections for the Dwarf/Low Bear Poppy (*Arctomecon humilis*), and later worked to obtain critical habitat designations for *Astragalus holmgreniorum* and *Astragalus ampullarioides* and helping to document the occurrence of *Sphaeroclea gierischii* in Utah and getting it on the radar of the Utah Natural Heritage Program and NatureServe and advocating for its protection, along with many others. We have held (and in fact started) rare plant meetings there and have participated and/or helped organized field trips and have frequently commented on agency proposals, not the least of which was the Southern Corridor, and we have even held board meetings in Bloomington, inasmuch as Washington County has the highest native vascular plant biodiversity of any county in Utah. The conservation and study of rare plants (and native plant ecosystems in general) in Washington County is also a frequent topic at our annual rare plant meetings held each year in March. Our rare plant committee ranks the status of all rare plants in the state and therefore a significant amount of attention is paid to species that occur in

Washington County and we publish those results in journals, newsletters and via the Utah Rare Plant guide web site that we maintain and coordinate.

Western Watersheds Project

Western Watersheds Project (WWP) is a non-profit organization with more than 9,000 members and supporters. Our mission is to protect and restore western watersheds and wildlife through education, public policy initiatives and legal advocacy. Western Watersheds Project and its staff and members use and enjoy the public lands and their wildlife, cultural and natural resources for health, recreational, scientific, spiritual, educational, aesthetic, and other purposes. WWP has a long history of working to conserve desert tortoises across their range.

WildEarth Guardians

WildEarth Guardians is a non-profit conservation organization dedicated to protecting and restoring the wildlife, wild places, wild rivers, and health of the American West. Guardians has offices in New Mexico, Colorado, Oregon, Washington, Montana, and Arizona. With more than 275,000 members and supporters, Guardians works to keep public lands where they belong: in public hands. It also has an active endangered species protection campaign, with a geographic focus on flora and fauna endemic to the western United States.

**Red Cliffs Coalition Member Organizations and Contact Information
(in alphabetical order by Organization Name)**



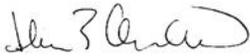
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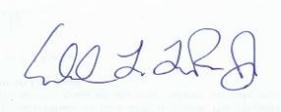
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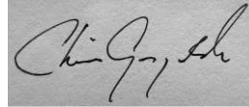
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2. Points of Protest

2.1 The FEIS Does Not Comply with NEPA.

A major purpose of NEPA is to ensure that federal agencies conduct fully informed environmental decision-making. NEPA promotes its sweeping commitment to “prevent or eliminate damage to the environment” by focusing the attention of federal decision makers on the environmental and other impacts of proposed agency action. 42 U.S.C. § 4321. “The sweep of NEPA is extraordinarily broad, compelling consideration of any and all types of environmental impacts of federal action.” *Calvert Cliffs’ Coordinating Comm. v. U.S. Atomic Energy Comm’n*, 449 F.2d 1109, 1122 (D.C. Cir. 1971). An agency must “take the initiative of considering environmental values at every distinctive and comprehensive stage of the process.” *Id.* at 1111. Federal agencies must consider all reasonably foreseeable environmental impacts at the earliest possible stage of a project’s development.

The Bureau of Land Management (BLM) has failed to meet its obligations under the National Environmental Policy Act (NEPA) with respect to its approval of Amendments to the Resource Management Plan (RMP) of Red Cliffs National Conservation Area (NCA). BLM fails to examine significant new circumstances after a devastating fire season, establish a baseline for the Mojave desert tortoise population, examine the impacts of these RMP Amendments, and disclose relevant information to the public.

A. BLM and FWS must issue a supplemental draft EIS examining significant new circumstances.

“An EIS must be supplemented whenever the Administration determines that: new information or circumstances relevant to environmental concerns and bearing on the proposed action or its impacts would result in significant environmental impacts not evaluated in the EIS.” 23 C.F.R. § 771.30. The particularly devastating fire season in 2020 and its effects on the Red Cliffs NCA and the Mojave desert tortoise population were not considered in this FEIS. Therefore, BLM must produce a supplemental EIS that evaluates the impacts of the UDOT’s application alignment with this up-to-date baseline.

Between July and December 2020, four major human caused wildfires burned 14,765 acres in the Red Cliffs NCA and Desert Reserve.² On July 21, 2020, the Red Cliffs Conservation Coalition requested that BLM and the Fish & Wildlife Service (FWS) temporarily pause preparation of all required environmental analysis and review under 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), regarding the Northern Corridor Highway until BLM and FWS assess and examine the full ecological impacts of these fires and complete burned area assessments, BLM adopts Emergency Stabilization/Burned Area Emergency Response (ES/BAER) Plans and a Burned Area Rehabilitation (BAR) Plans, and BLM and FWS prepare and submit for public

² The Turkey Farm Road, Cottonwood Trail, Lava Ridge, and Snow Canyon Fires respectively burned 11,995; 1,623; 348; and 799 acres (pers. communication with Yvette Converse) inside the Red Cliffs NCA and Desert Reserve. *See* FEIS at 3-54. Additionally, as of December 1, 2020, an additional 18 human-caused fires burned up to an additional 234 acres in and around the Red Cliffs NCA and Desert Reserve and in Snow Canyon State Park in 2020. *See* utahfireinfo.gov

review and comment a supplemental draft environmental impact statement and habitat conservation plan.

The Agencies did not respond to this request, instead issuing an insufficient FEIS on November 13, 2020 that ignored the significant new circumstances.

In the FEIS, BLM states that a supplemental EIS is unnecessary because fire in the Red Cliffs NCA and Desert Reserve is expected³, and fire history is well understood and documented in the DEIS and elsewhere. The Agencies also state that new information regarding the 2020 fires has been added to the FEIS to ensure public disclosure. However, the new information only scratches the surface of the wildfire devastation that occurred in 2020.

Also missing from BLM's additional information is a discussion of the increasing fire trend in the analysis area, including the rise of human caused fires; fire prevention strategy for the Red Cliffs NCA and Desert Reserve; and discussion of the relationship between roadways, spread of invasive plant species, and increased risk of wildfire.

The 2020 UT Wildfire Season Summary accessed at utahfireinfo.gov on December 1, 2020 shows that the frequency of reported human-caused wildfires in Washington County in 2020 is shocking. There were at least 7 human-caused fires that started in the Red Cliffs Desert Reserve off of SR-18 and 10 human-caused fires that started adjacent to the Red Cliffs Desert Reserve.

This publicly-available information should have informed analysis of the risk of the UDOT's application alignment to the desert tortoise, thousands of human residents who live adjacent to the Red Cliffs NCA and Desert Reserve, and the larger ecosystem. The Agencies are aware of the risk factors for catastrophic wildfire but have failed to put the pieces together. For example, prior to the 2020 fires, vegetation surveys completed in the highway alignments revealed that "the UDOT Application Alignment supports a minimum foliar cover of 67 percent exotic or invasive species, of which 41 percent is cheatgrass" (FEIS at 3-10) and that "cheatgrass can replenish its seedbank after one full season, particularly after a wildfire" (FEIS at 3-9). The Agencies also noted in the FEIS that the "burning of previously unburned areas from these fires follows the 'new' fire regime and is likely to lead to further vegetation departure within the Red Cliffs NCA and the Reserve. Recent localized analysis suggests high fire danger days are likely to increase (Rangwala 2020)." FEIS at 3-191. Finally, the Agencies also noted in the FEIS that 11 of the 25 fires that occurred in the Red Cliffs NCA and Desert Reserve since 1976 (this figure does not include the Snow Canyon Fire) were human caused. With increasing aridity and population growth in Washington County, the percent cover of cheatgrass and the number of human-caused wildfires will continue to trend upward. The introduction of a highway will only exacerbate the frequency of these human-caused fires, and BLM failed to analyze this risk. BLM cannot adhere to its requirements under NEPA without issuing a supplemental DEIS to address the significant new circumstances and information resulting from the 2020 massive wildfires in the environmental impact statement.

B. BLM does not use an adequate baseline for the Mojave desert tortoise population.

³ Wildfire is not mentioned or analyzed in the February 22, 1996 Biological Opinion for the Washington County ITP or in the Findings Document, therefore BLM cannot state with authority that fire is expected. Furthermore, if fire *is* expected, BLM must manage the Red Cliffs NCA to lessen the occurrence of fire (e.g., by removing cheatgrass and revegetating with native species).

NEPA requires a baseline from which to determine the project's environmental effects. *See* N. Plains Res. Council, Inc. v. Surface Transp. Bd., 668 F.3d 1067 (9th Cir. 2011) and Nat'l Parks & Conservation Ass'n v. Babbitt, 241 F.3d 722 (9th Cir. 2001), *abrogated on other grounds by Monsanto Co. v. Geertson Seed Farms*, 561 U.S. 139, 157 (2010). The agency must establish a reliable baseline, otherwise there is no way to determine what the effect of the proposed action will have, and consequently, no way to comply with NEPA. *See* Half Moon Bay Fishermans' Marketing Asso. v. Carlucci, 857 F.2d 505, 510 (9th Cir. 1988).

The BLM failed to capture accurate baseline conditions for the alternatives analysis, including with respect to post-fire desert tortoise populations and critical habitat condition. The BLM must update desert tortoise density and abundance estimates and critical habitat condition assessments. This information is necessary to evaluate the impact of the UDOT's application alignment to the desert tortoise and its critical habitat and is necessary to enable a comparison of the alternatives against current conditions. This information is currently missing from the FEIS.

Instead, the FEIS relied on a single desert tortoise mortality survey across a mere 618 acres of the 14,765 acres that burned in 2020. The information found in the FEIS at 3-54-55 and 3-190-191 fails to provide accurate baseline conditions in the Red Cliffs NCA and Desert Reserve.

With the information provided in the FEIS, the following conclusions can be drawn⁴:

- a) 19% of the designated critical habitat (8,950 acres⁵) and 24% of the larger Red Cliffs NCA and Desert Reserve (14,765 acres⁶) burned in 2020 alone.⁷
- b) A total of 8,950 acres of designated critical habitat burned in the four major 2020 wildfires. An additional 275 acres of critical habitat would be destroyed by the Utah Department of Transportation's (UDOT) application alignment, reducing the total critical habitat by 20%⁸ in the Red Cliffs NCA and Desert Reserve.
- c) An additional 1,335 acres of critical habitat south of the right-of-way would be directly impacted due to the habitat fragmentation caused by UDOT's application alignment. *See* FEIS at 3-75. Crossing structures have not proven successful in the Red Cliffs Desert Reserve and NCA. *See* FEIS at 3-47. Additionally, FWS admits that more study is needed to determine whether culverts are sufficient to support demographic needs for desert tortoises, stating that "attributing higher effectiveness from culverts alone is too risky given the high uncertainty and importance of the areas where connectivity needs to be improved to support the viability of the UVR recovery

⁴ The following figures are calculated using information from the FEIS and best-available science. Total acreage of the NCA/Reserve/UVRU comes from the FEIS; total acreage of designated critical habitat burned in 2020 comes from the FEIS and personal communications with Yvette Converse in regards to the Snow Canyon Fire which was not included in the FEIS; total acreage directly or indirectly impacted by the UDOT application alignment comes from the FEIS; and methods for calculating the roadway impact zone come from Peaden et al 2015 and Hoff and Marlow 2002. See exhibits. All calculations are explained in the footnotes.

⁵ The FEIS at 3-55 states that the Turkey Farm Road, Cottonwood Trail, and Lava Ridge fires burned 8,814 acres of designated critical habitat in the Red Cliffs NCA and Desert Reserve. The Snow Canyon Fire burned 136 acres of designated critical habitat (pers. communication with Yvette Converse). In total, 8,950 acres of designated critical habitat burned inside the Red Cliffs NCA and Desert Reserve in 2020. There are 46,849 acres of designated critical habitat in the Red Cliffs NCA and Desert Reserve. $[(46,849-8,950)/46,849]*100=0.81$ and $1-0.81=0.19$ or 19%.

⁶ See footnote #1.

⁷ The Red Cliffs NCA and Desert Reserve encompass 62,031-acres and 4 major wildfires burned a total of 14,765 acres of critical and suitable habitats there in 2020. $[(62,031-14,765)/62,031]*100=0.76$ and $1-0.76=0.24$ or 24%.

⁸ The wildfires and UDOT application alignment together would destroy 9,225 acres of designated critical habitat. $[(46,849-9,225)/46,849]*100=0.80$ and $1-0.80=0.20$ or 20%.

unit” (Biological Report for the Upper Virgin River Recovery Unit population of Mojave desert tortoise *Gopherus agassizi* at 57).

- d) Thus, somewhere between 3,517⁹ and 9,386 acres¹⁰ of designated critical habitat on both sides of the roadway would be indirectly impacted and degraded for the desert tortoise from effects caused by the roadway which include, but are not limited to: noise, vibration, increased risk of wildfire, fragmentation, increased risk of predation, and poaching.
- e) 16% of the designated critical habitat in the Upper Virgin River Recovery Unit (UVRU) burned in the 2020 fires (8,950 of 54,600 acres). The 1994 Desert Tortoise (Mojave Population) Recovery Plan states that “general requisites for determining number and size of DWMA’s in a recovery unit are described in the Recovery Strategy (Section II.B.). Generally, reserves should be established within each recovery unit which are at least 1,000 square miles in extent, or if this is not possible, particularly intensive habitat and desert tortoise population management should be implemented to ensure long-term viability of the population” (id. 47). Prior to the fires, the size of the Red Cliffs Desert Reserve (DWMA) at 62,000 acres or 97 square miles did not meet this requirement. Both the Reserve and the 85.3 square mile-UVRU are far below the 1,000 square mile threshold. Routing a 4-lane highway through an area that may be home to the most important high-density cluster of desert tortoise in the UVRU cannot be considered intensive habitat and population management.
- f) At 3-58, the FEIS notes that the UVRU is the smallest and the most isolated of the recovery units. Following the 2020 fires, this vulnerable recovery unit has been reduced in currently functioning habitat by a further 16% and has only 45,650¹¹ acres of critical habitat remaining. Finally, it’s important to consider that desert tortoise populations had already declined by 24.3% between 2004 and 2014, prior to the 2020 fires. *See* FEIS at 3-60. The decline in the UVRU between 2014 and 2024, and between 2024 and 2034, will likely be severe as threats to Mojave desert tortoise are only increasing.
- g) By adding the critical habitat acres lost to fire (8,950 acres) and the critical habitat acres that would be lost or degraded due to the UDOT’s application alignment (9,386 acres), we calculate that approximately 18,336 acres of critical habitat would be

⁹ This figure was calculated by multiplying the length of the UDOT’s application alignment (4.5 miles or 23,760 feet) by 8 times the width of the 500-foot-wide ROW UDOT is applying for (4,000 feet). This totals 95,040,000 sq. ft. or 2,182 acres. This is the maximum zone of impact for a roadway analyzed by Peaden et. all in 2015. This is a conservative estimate of the extent of depression to the Mojave desert tortoise north of the right-of-way. This figure was added to the 1,335 acres south of the ROW (and north of the Red Cliffs NCA and Desert Reserve southern boundary) that the FEIS determines would be indirectly impacted by the highway. The actual figure may be slightly different as the UDOT’s application alignment is not a straight line. Again, this estimate is conservative. Peaden states that “road-effect zones are one of the most insidious forms of habitat loss that contributes to biodiversity declines globally.... In the present study, road effects on populations extended 5–8 times farther than the widths of the roads themselves.”

¹⁰ This figure was calculated by multiplying the length of the UDOT’s application alignment (4.5 miles or 7.24 km) and the maximum zone of impact for a roadway of 4.6 km (von Seckendorff Hoff and Marlow 2002) to determine the maximum extent of depression to the Mojave desert tortoise *north* of the right-of-way. This totals 32.58 square km or 8,051 acres. This figure was added to the 1,335 acres south of the ROW (and north of the Red Cliffs NCA and Desert Reserve southern boundary) that the FEIS determines would be indirectly impacted by the highway. The actual figure may be slightly different as the UDOT’s application alignment is not a straight line. Finally, note that BLM’s claim that the 4.6 km zone of impact for roadways cannot be used to estimate the indirect impacts of the Northern Corridor Highway is mistaken. BLM claims that Hoff and Marlow’s 4.6 km maximum roadway impact zone applies to unfenced roadways, and the Northern Corridor will be fenced, but nowhere in their study do the authors state this.

¹¹ 54,600 designated critical habitat acres in the UVRU-8,950 designated critical habitat acres burned in 2020=45,650 remaining acres.

directly lost or degraded. This loss of 18,336 acres of critical habitat due to the UDOT's application alignment and 2020 wildfires represents a 39% loss of designated critical habitat in the Red Cliffs NCA and Desert Reserve¹² and a 34% loss of critical habitat in the UVRU¹³.

Therefore, conclusions drawn from the minimal analysis on fire impacts added to the FEIS show that critical habitat in the Red Cliffs NCA and Desert Reserve and larger UVRU has taken a major hit following the 2020 wildfires (see maps in section I.A of this protest). The baseline must adequately consider the effects of the 2020 fire season.

Furthermore, critical information is missing from the Agencies' analysis of the 2020 fires, undermining its baseline determination.

1. The total acreage of designated critical habitat in the Red Cliffs NCA and Desert Reserve that has been burned.

This is necessary information for understanding how many acres that were designated *critical* for Mojave desert survival (i.e., foraging, reproduction and nesting) have burned, reburned, and suffered loss of habitat quality, meaning that the ability of these acres to support a viable desert tortoise population is lessened. After all, at 3-192, the FEIS acknowledges that “non-native vegetation has colonized the majority of the burn area and compromised its suitability as Mojave desert tortoise habitat.” While the FEIS at 3-54 summarizes fire history, it fails to disclose how many of these burned acres were critical habitat.

2. The total acreage of designated critical habitat that has never burned.

This is necessary information for understanding the percentage of high-quality habitat (with native vegetation, lower percentage of invasive plant species, etc.) remaining in the Red Cliffs NCA and Desert Reserve. This is important for understanding whether the Red Cliffs Desert Reserve (Tortoise Conservation Area) will meet FWS requirements for minimum geographic size (which is dependent on population size and other tortoise demographic characteristics) and will continue to function as a viable Tortoise Conservation Area following the loss of critical habitat in the 2020 fires, *compounded* with the potential loss of, and indirect adverse impacts to, critical habitat that would be caused by the UDOT's application alignment.

The FEIS states, “Each recovery unit included a Desert Wildlife Management Area (managed as ACECs on BLM-administered lands) that supports at least one viable Mojave desert tortoise population relatively resistant to extinction processes (i.e., a minimum geographic extent of **1,000 square miles** and a density of 3.9 adult Mojave desert tortoises per square kilometer [10.1 Mojave desert tortoises per square mile, which totals 10,000 Mojave desert tortoises for a viable population]; USFWS 1994, USFWS 2011, USFWS 2019a).” 3-57.

This is also necessary to understand the amount of remaining critical habitat that could be subject to increased fire risk due to construction of the highway.

3. Current (post-fire) Mojave desert tortoise population demographic data.

¹² There are 46,849 designated critical habitat acres in the Red Cliffs NCA and Desert Reserve. See FEIS at 3-77. $[(46,849 - 18,336)/46,849]*100 = 0.61$ and $1-0.61 = 0.39$ or 39%.

¹³ There are 54,600 designated critical habitat acres in the UVRU (FEIS at 3-58). $[(54,600 - 18,336)/54,600]*100 = 0.66$ and $1-0.66 = 0.34$ or 34%.

In addition to density and abundance estimates, information on the sex ratio and population growth rate of desert tortoises surviving in Zone 3 following the 2020 fires is necessary. This information will help the agencies understand if the population is large enough to function as a viable population in the future. If the population has declined to a level below the viability threshold, UDOT's application alignment would be a nail in the coffin to desert tortoise survival in the Red Cliffs NCA and Desert Reserve and the Upper Virgin River Recovery Unit.

The only information currently available on tortoise mortality is from the *Cottonwood Trail Fire Tortoise Mortality Report* published by BLM in September 2020. Experienced surveyors conducted field surveys 1 to 45 days after the fire was contained and found 14 adult tortoises across 618 acres or 2.5 km² surveyed, "which constitutes 59% of the critical habitat (n = 1,001 acres) and 44% of the public land (n = 1,414 acres) within the Cottonwood Trail Fire burn area... a total of 25 tortoise remains were observed... including eight Adult, 14 Immature, and three Juvenile...of the total tortoise remains (n = 25), 14 remains were directly attributed to fire, including five Adult, seven Immature, and two Juvenile." *See id.* at 3). This report is the *only* biological survey¹⁴ using acceptable statistical methods that has been completed thus far to assess fire damage for one tiny portion (618 acres) of the 8,950 designated critical habitat areas that burned in 2020. This survey covers only 7% of the total burned area, and additional surveys are needed to understand the full impacts of this and other fires.

The FEIS does not discuss the implications of this study, or even name it. The FEIS states that "a minimum of 14 tortoises were identified to have died because of the Cottonwood Trail Fire", referencing the study, but failing to analyze its important findings. *See* 3-54. For example, at least 16% of adult tortoises perished¹⁵ in the surveyed portion of the Cottonwood Trail Fire in Zone 3. Importantly, this 16% mortality estimate is likely drastically underestimated because it does not include hatchling, juvenile, injured, scavenged, entrenched, or otherwise "missed" tortoises; nor those that will die from starvation because of the loss of native vegetation; nor those that will not emerge from brumation due to the stress of the fires. The cumulative impacts¹⁶ of these fires on the desert tortoise population won't be understood fully for many years but must be considered in order to determine an accurate baseline.

Importantly, in 2019 prior to the fires, the desert tortoise population in Zone 3 had already declined by 63%¹⁷. Tortoise density dropped from 33.4 tortoises/km² in 1998 to 12.3/km² in 2019. This significant decline over little more than two decades shows that the Zone 3 desert tortoise population is at great risk. Additionally, it never recovered from the severe drought of 2002 and the wildfires of 2005 and 2006 which caused 15% of the desert tortoises in the Red Cliffs NCA and Desert Reserve to perish.¹⁸

¹⁴ Washington County HCP staff, including untrained staff and volunteers, conducted a 2-day survey of a small portion of the Turkey Farm Road Fire burn, but no official report has been released. Additionally, the survey methods (use of 25-meter belt transects with untrained volunteers compared to use of 10-meter belt transects with trained surveyors used by the BLM in the Cottonwood Trail Fire survey) are inadequate to produce statistically reliable results.

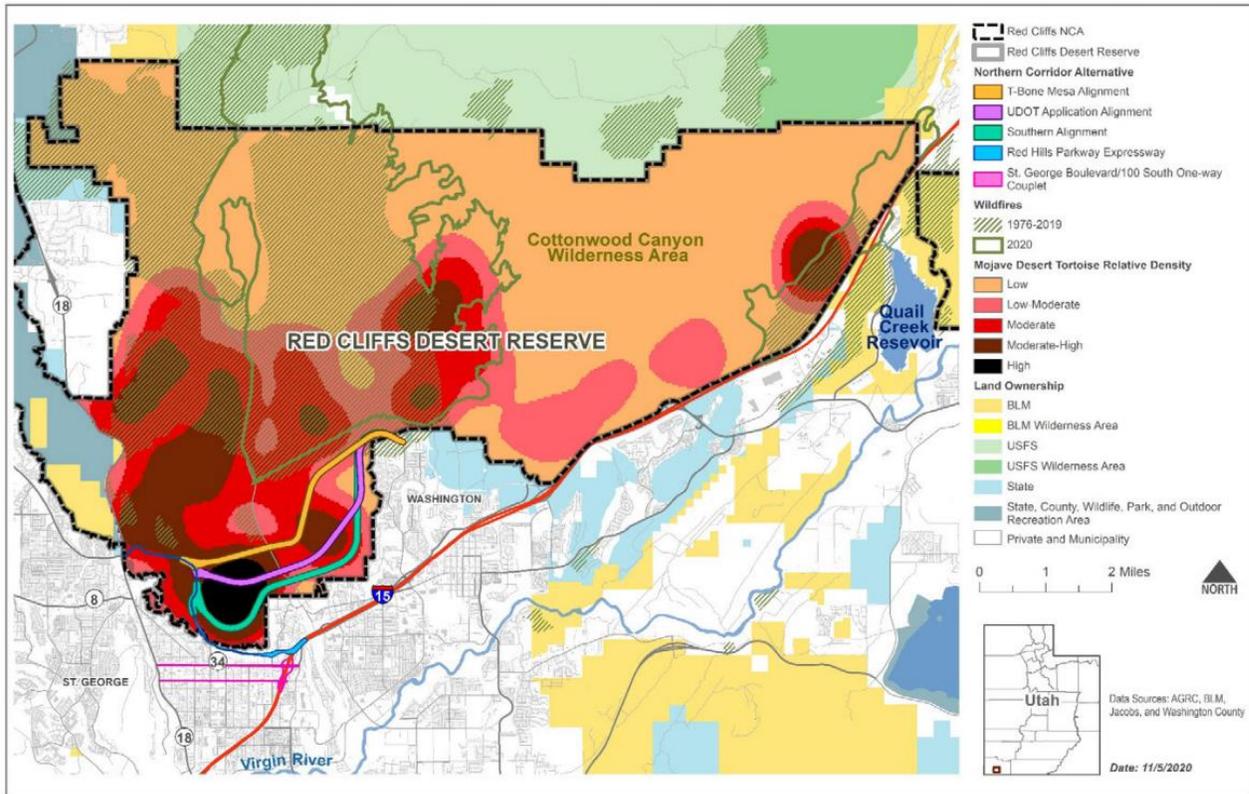
¹⁵ In 2019, there were 12.3 adult tortoises/km² in Zone 3 (FEIS at 3-61). Experienced BLM surveyors found 5 adult tortoise mortalities in the 2.5 km² survey area for the Cottonwood Trail Fire. Given the density estimate of adult tortoises, we estimate there are 30.75 adult tortoises in the survey area (12.3 * 2.5), meaning that approximately 16% of adult tortoises (6/30.75) perished in the fire.

¹⁶ Additionally, the FEIS could have used the best available scientific information and conducted an analysis and reported on what it might expect as cumulative impacts from the fires to the desert tortoise and its habitat, but it even failed to do that.

¹⁷ Regional Desert Tortoise Monitoring in the Red Cliffs Desert Reserve, 2019 Publication Number 20-06
Utah Division of Wildlife Resources, pg. 31

¹⁸ DEIS at 3-42

Map 3.5-1. Wildfires, Kernel Density Tortoise Abundance, and Northern Corridor Alignments



Map 3.5-1 from FEIS shows that the location of the Turkey Farm Road fire and the proposed UDOT’s application alignment effectively separate the western portion of Zone 3 from the eastern portion. This makes it very difficult for adult tortoises with large home ranges to move across Zone 3 and impossible for smaller tortoises. The fire and highway together can be seen as pseudo-barriers, at least until native perennial and annual plant species are re-established.

In light of the trend of sharp decline in Zone 3, the additional loss of at least 16% of adult desert tortoises caused by the 2020 fires is unsustainable. In regard to estimated tortoise mortality, the best scientific evidence shows that losses of even 10% have catastrophic, population-level effects. Between 1987 and 1993, Todd Esque¹⁹ and colleagues surveyed 1,221 acres across 6 different fires that burned 10,833 acres of desert tortoise habitat in Utah and Arizona. He found that:

“Losses of individuals in long-lived species with low reproductive capacity, such as tortoises, leads to population-level effects (Hailey, 2000). Signs of activity along surveyed areas suggested that more tortoises survived the fires than were located during surveys. However, a loss of 11% of the adult population is a catastrophic loss for this long-lived species (United States Fish and Wildlife Service, 1994).”

While mortality estimates across the burns in the Red Cliffs NCA and Desert Reserve have not yet been calculated, it’s likely that they are similar, or surpass, the 16% loss estimated from the Cottonwood Trail Fire. Without knowing the extent of the loss, a valid NEPA analysis cannot be

¹⁹ See “Effects of Desert Wildfires on Desert Tortoise (*Gopherus Agassizii*) and Other Small Vertebrates” (Esque et. all 2003).

accomplished. Therefore, BLM must provide a supplemental EIS with an accurate baseline Mojave desert tortoise population, considering the effects of the 2020 fire season.

C. The proposed purpose and need is improperly narrow and driven by the applicant's economic needs.

NEPA requires BLM to include a statement that briefly describes “the underlying purpose and need to which the agency is responding in proposing the alternatives including the proposed action.” 40 C.F.R. §1502.13. Crafting a sufficiently broad purpose and need statement is crucial because it “dictates the range of alternatives” and renders alternatives unreasonable “if they do not respond to the purpose and need for the action.” BUREAU OF LAND MGMT., U.S. DEP’T OF THE INTERIOR, NATIONAL ENVIRONMENTAL POLICY ACT HANDBOOK H-17901 at 6.2.1 (Jan. 2008).

The federal purpose and need statement must not only be separate from the applicants, but also framed consistently with the agencies’ relevant legal duties and in the public interest. *See* 43 CFR 46.420. While the FEIS 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. BLM states that it takes into account the provisions of the 2009 Omnibus Public Lands Management Act (OPLMA), but in Section 1.3 Purpose and Need for Federal Actions, BLM ignores its obligation under OPLMA Subtitle O, Section 1974. Instead, BLM emphasizes its requirement to identify a northern transportation route in the county.

BLM must take into account the full provisions of OPLMA, and not just individual sections that support the applicant’s purpose and need. While the FWS’s purpose and need addresses conservation, it fails to disclose the whole story. The Amended HCP is set up in response to the NCH as a Changed Circumstance, thereby failing to minimize and mitigate the impacts anticipated from the taking. *See* FEIS at ES-3.

By failing to identify and balance the agencies’ required consideration of legal obligations to protect the NCA and the species for which it was established, and instead focusing on satisfying the applicants’ request for a highway, the purpose and need statement is too narrowly defined, in a manner that reacts to and is deferential to the applicant’s request at the expense of the agencies’ responsibility to the public interest and established law.

D. BLM Fails to take a Hard Look at Noise Impacts from the RMP Amendments.

Impacts to the public from increased noise are effects to be considered under NEPA. *See, e.g., Grand Canyon Trust v. Fed. Aviation Admin.*, 290 F.3d 339, 345-347 (D.C. Cir. 2002) (holding that the FAA must consider cumulative impacts of increased noise from a new airport on Grand Canyon National Park and park visitors); *Forest Guardians v. U.S. Forest Serv.*, 495 F.3d 1162, 1172–73 (10th Cir. 2007) (agency must consider impacts of noise on private lands); *Wash. Trails Ass’n v. U.S. Forest Serv.*, 935 F. Supp. 1117, 1124, 1126 (W.D. Wash. 1996) (finding NEPA violation for inadequate consideration of motorized use impacts on non-motorized recreationists).

Yet, in its FEIS, BLM failed to measure, monitor and assess the impacts on ambient noise levels of the RMP Amendment, the subsequent NCH, and the up-to 22,000 vehicle trips per day that are projected to use this highway. First, BLM failed to even assess the background noise levels in the heart of the Red Cliffs NCA and in areas impacted by UDOT's NCH route. *See* FEIS at 3-196, Table 3.23-1; FEIS at App. K, p. 10, Fig. 3 (map of noise measurement locations). More specifically, BLM's noise consultant established five measurement locations to determine background noise levels, and not one of these monitoring locations was sited on or around UDOT's NCH corridor, on the undeveloped public lands in the heart of the Red Cliffs NCA, or within designated critical habitat for the desert tortoise. *See* FEIS, App. K at 10. And BLM provides no reasoned explanation why its baseline noise data ignored these important areas and resources.

In the absence of this baseline data, BLM cannot adhere to NEPA's "hard look" requirement. Indeed, the starting point of any NEPA analysis is the collection and description of baseline data, because, "without establishing ... baseline conditions ... there is simply no way to determine what effect [an action] will have on the environment, and consequently, no way to comply with NEPA." *Half Moon Bay Fisherman's Mktg. Ass'n v. Carlucci*, 857 F.2d 505, 510 (9th Cir. 1988). *See also Am. Rivers v. F.E.R.C.*, 201 F.3d 1186, 1195 n.15 (9th Cir. 2000); *Ctr. for Biological Diversity v. BLM*, 422 F. Supp. 2d 1115, 1163 (N.D. Cal. 2006) (baseline is the "heart of the EIS" and must "be accurate and complete"). Here, like in *Half Moon Bay*, in the absence of baseline noise data, BLM simply cannot make a reasoned determination of the impact of the NCH on the conservation values within the Red Cliffs NCA and the neighboring private property.

In fact, BLM acknowledges that an increase in noise levels would occur under UDOT's NCH route – "because [this alternative] propose that a new highway would be constructed in the area where no roadway currently exists" – but BLM does not even attempt to determine these scope and breadth of these impacts. Instead, BLM claims that it will complete the required NEPA analysis **after** it approves the NCH ROW. *See* FEIS at O-473 ("a more detailed noise analysis" would be conducted "after completion of the ROD"); *id.* at O-468 ("a more detailed noise analysis will be conducted to determine potential noise impacts" after approving the ROD).

BLM has it exactly backwards, and its claim that it will undertake future studies – while admitting that it has not done prior to granting the RMP Amendments and the NCH ROW – does not meet NEPA's requirements that federal agencies must undertake "coherent and comprehensive up-front environmental analysis to ensure informed decision making." *See Center for Biological Diversity v. USFS*, 349 F.3d 1157 (9th Cir. 2003) (NEPA "prohibits uninformed – rather than unwise – agency action"), *citing Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 351 (1989).

In the past, BLM has completed a more robust noise analysis at this same stage of planning for earlier iterations of the Northern Corridor Highway. *See* Red Hills Parkway, State Route 18 (Bluff Street) to Industrial Road, Washington County, Utah Environmental Assessment and Draft Section 4(f) Evaluation (November 2007). BLM fails to adequately explain why it has unlawfully delayed this analysis for this project.

E. The FEIS fails to examine and discuss how the RMP Amendments conserve, protect and enhance the values of the NCA.

The FEIS analysis fails to explain how the UDOT’s application alignment would benefit or be consistent with the Red Cliffs NCA statutory purposes as required by OPLMA.

UDOT’s application alignment violates the 2009 OPLMA and the mandate to conserve, protect and enhance the values of the Red Cliffs NCA, in part because BLM must seek a so-called “one-time exception” to LAR-13 Criteria E in order to allow the UDOT’s application alignment to travel through a designated ROW avoidance area. LAR-13 Criteria E is a limitation on rights-of-ways in “avoidance areas” in the Red Cliffs NCA unless certain criteria can be met, namely that the project-specific NEPA analysis indicates that the construction and operation of the facility would not result in the take of Federally listed species; the adverse modification of designated critical habitats; or adverse effects to National Register of Historic Places (NRHP)-listed or eligible properties. *See* FEIS at 2-11.

BLM’s NEPA analysis demonstrated that the RMP Amendments that clear the way for UDOT’s application alignment would fail on all three accounts. The FEIS conservatively estimates that the NCH ROW would cause the translocation of 40 threatened Mojave desert tortoises and indirectly impact 328 more; destroy 285 acres and disturb and fragment at least 2,333 additional 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 285 acres is 265 acres larger than Criteria E allows. FEIS at 3-78, 3-148, and 2-11.

In the FEIS, BLM fails to analyze, discuss or explain how the decision to apply for a one-time exception to LAR-13 Criteria E in order to grant a ROW for UDOT’s application alignment adheres to the “conserve, protect, and enhance” standard in OPLMA. In the 2015 Red Cliffs NCA RMP, BLM designated the area where the highway will be routed as a ROW avoidance area. Yet, the FEIS contains no real analysis, discussion or assessment of the impacts of the NCH on conserving, protecting and enhancing the NCA resource values, and further[ing] the purposes of conservation, protection, and enhancement of resource values in the NCA.” Red Cliffs NCA ROD at 64.

F. BLM Failed to Examine the Indirect Impacts of the RMP Amendments on Local Growth Within the NCA.

Under NEPA, consideration of indirect impacts also requires an agency to examine additional growth inducing effects of its decisions. *See* *Utahns for Better Transportation v. U.S. Dept. of Transp.*, 305 F.3d 1152, 1174 (10th Cir. 2002), citing 40 C.F.R. § 1508.8(b) (indirect impacts “may include growth inducing effects”). *See also* *Laguna Greenbelt, Inc. v. U.S. Dept. of Transp.*, 42 F.3d 517 (9th Cir. 1994). Courts have required this “growth inducing” analysis to be reasonably thorough. *See Laguna*, 42 F.3d at 526. A review of the FEIS establishes that BLM fails to undertake any discussion whatsoever of the potential growth inducing effects of the RMP Amendments, which permit the NCH within the NCA.

This oversight is particularly problematic here because much of the eastern portion of the NCA along UDOT’s NCH route remains in private ownership, and the Utah School and Institutional Trust Lands Administration (SITLA) owns large sections on lands in and around the NCH corridor, too. Instead, BLM claims only that it does 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.” FEIS at O-146. According to BLM, “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.” *Id.*

The FEIS analysis, and BLM and FWS, improperly rely on these SITLA conservation commitments without real 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. When the Reserve was established in 1995, it contained 10,938 SITLA acres. In the last 25 years, less than half of that land has been acquired. “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.” FEIS at 2-19.

BLM goes on to state that Washington County and SITLA should be trusted to uphold their conservation promises. *See* FEIS Appendix O at 0-30. However, BLM failed to analyze Washington County and SITLA’s history of participation in the Washington County HCP, including the HCP partners’ broken promises and failure to act in the HCP’s best interest. *See* HCP at 12 and 96.

It is unlikely that SITLA will prioritize the exchange of state lands to federal ownership in the future because of the “unwritten rule” in the Utah Legislature mandating that there will be no net increase of federal ownership in the state (pers. communication with Kyle Pasley). If the SITLA lands in Zone 6 are traded to federal ownership for equalization purposes, as the state lands in the Red Cliffs NCA have been, it’s likely that the pace of trade-out will be equally slow and the exchanges equally cumbersome.

Additionally, recent land exchanges traded privately owned parcels inside the Reserve to Washington County, Washington County Water Conservancy District, Washington City and Hurricane City. These parcels are all adjacent to, or very near, the proposed Northern Corridor Highway. It appears that Washington County is attempting to lay the groundwork for development in the Reserve.

BLM’s blanket response is simply not credible, and any claim that the NCH would not provide access to private, State, or municipal lands, especially when UDOT’s route runs immediately over and adjacent to these lands runs contrary to the evidence in the record. *See* FEIS at B-80, Map 3.16.1. Indeed, BLM has already acknowledged that one of the primary threats to the East Cottonwood Analytical Unit of the Upper Virgin River Mojave Desert Tortoise Recovery Unit – i.e., the precise area of private, State, and municipal lands along the eastern portion of the NCH ROW – includes “potential for development with independent HCPs on non-Federal lands.” FEIS at 3-59. *See also* FEIS at B-52, Map 3.5-4 (map of analytical units).

G. BLM’s FEIS Fails to Adequately Examine the Impacts of the RMP Amendments on ESA Section 6 Lands.

The Habitat Conservation Plan (HCP) Land Acquisition program was designed to reduce conflicts between the conservation of listed species and land uses on specific parcels of land. Under this program, the Service provides grants to States for land acquisitions that are associated with approved HCPs. *See* 16 U.S.C § 1535.

The purpose of these grants is to complement an existing Habitat Conservation Program, in this case, Washington County’s existing HCP. These Section 6 lands were acquired to provide habitat for the desert tortoise and other species of sensitive wildlife and to protect and enhance biodiversity. All of the lands acquired have a similar grant objective, or long-term conservation goal, which is ‘to be operated by the UDWR and/or Utah Division of Parks and Recreation, Snow Canyon State Park as a wildlife preserve for the desert tortoise and other wildlife biodiversity species, in accordance with the Washington County Habitat Conservation Plan and the Desert Tortoise Recovery Plan, and for limited, controlled public access for wildlife viewing’ (Smith 2020).” FEIS at 3-94–3-95.

In the FEIS, BLM and the Service determine that the RMP Amendments as described in Tables 2.3-1 and 2.5-1, which will allow UDOT’s application alignment will impact 4 parcels acquired through Section 6 of the ESA through fragmentation and proximity-related degradation. According to the FEIS at 3-99, “a total of approximately 341 acres of Section 6 lands would be lost, accounting for approximately 11 percent of existing Section 6 lands within the Reserve. Any required transfer, replacement, or repayment to the United States would depend on grant amendments issued to the UDWR by the USFWS” and that “for this project, transfer, replacement, or repayment would be the responsibility of the State of Utah (50 CFR 80).” FEIS at 3-94.

The FEIS acknowledges the adverse impacts that UDOT’s application alignment would have on the Section 6 parcels, stating that “while Section 6 land may remain following fragmentation, the conservation value of the remaining lands may be degraded so it no longer meets the intended purpose of long-term conservation.” FEIS at 3-97. The FEIS also states that “the long-term conservation goal” of any parcels wholly or partially within 1 kilometer of any alternative “would no longer be met, resulting in a violation of the terms and conditions of the grant agreements.” FEIS at 3-99.

However, the FEIS fails to analyze the extent of adverse impacts caused by the RMP Amendments and UDOT’s application alignment because the Agencies have adopted an unreasonable and arbitrary limit, confining the indirect impacts analysis to 508 meter and 1 km buffers (FEIS at 3-95)²⁰. At least twelve Section 6 parcels would be adversely impacted by the

²⁰ In addition, BLM has similarly unlawfully cabined its analysis of the potential impacts of the spread of non-native, invasive weeds (including Cheatgrass) on Section 6 lands, LWCF lands and desert tortoise populations and habitat more generally by adopting an arbitrarily narrow 1 kilometer dispersal corridor for cheatgrass. *See* FEIS at 3-10, FN 3. In support of this narrow dispersal corridor, BLM cites three studies, none of which have any application to this landscape and project, because they discuss dispersal of different species in different landscapes under different conditions. *See id.* (1) Lewis, Mathew B. 2013. Roads and the Reproductive Ecology of *Hesperidanthus Suffrutescens*, and Endangered Shrub. Thesis, Utah State University; Logan Utah. Major Professor: Eugene W. Schupp (regarding dispersal of an endangered shrub species in the Uinta Basin of northeastern Utah; (2) U.S. Fish and Wildlife Service (USFWS). 2014a. Ecological Effects of Ground Disturbance and Roads on Plants and Recommended Buffer Distances, with Emphasis on the Uinta Basin, Utah. Utah Ecological Services Field Office, US Fish and Wildlife Service, March 2014 (recommended buffers for different grasses and shrubs in the Uinta basin of northeastern Utah and not the flatter, rolling areas within the southern portion of the Red Cliffs NCA); and (3) Walker, D.A. and K.R. Everett. 1987. “Road Dust and Its Environmental Impact on Alaskan Taiga

highway if indirect impacts were calculated out to 4.6 kilometers. In fact, the FEIS cites studies showing that the magnitude of the road impact zone extends up to 4,250 meters for 4-lane highways, and the zone of impact increased significantly with increasing traffic levels up to fully 4.6 kilometers from the road. FEIS at 3-46.

The Service cannot approve any action impacting these lands unless and until the Service has accepted transferred or replacement lands from the State of Utah 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. 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. *See Red Cliffs Conservation Coalition Comments on the Northern Corridor Draft Environmental Impact Statement and Related Management Plans at 26-30.*

Under NEPA, the Agency is required to provide detailed information concerning the environment impacts of its decisions. *See* 40 C.F.R. § 1500.1(a). BLM provides a cherry-picked summary of the purposes of multiple UDWR grants and fails to provide an adequate response to the request for references or citations to these UDWR proposals. *See Red Cliffs Conservation Coalition Comments on the Northern Corridor Draft Environmental Impact Statement and Related Management Plans at 28.* The Agencies fail to include these agreements in the appendices or otherwise allow public review of these documents. The FEIS similarly fails to include any enforceable agreements or commitments regarding subsequent management and use of these acquired lands. *See* FEIS App. O at 0-179.

Regardless, UDOT's application alignment would violate the grant objective for these parcels as described in the FEIS, which is to be managed by UDWR as a wildlife preserve for the desert tortoise and other wildlife biodiversity species.

The UDOT's application alignment also violates the HCP Land Acquisition program requirement that habitat be managed for conservation in perpetuity. *See, e.g.,* U.S. FISH & WILDLIFE SERVICE, Endangered Species Program Fiscal Year 2019 Cooperative Endangered Species Conservation Fund (Section 6 of the Endangered Species Act) Grant Program Notice of Availability of Federal Assistance, <https://www.fws.gov/endangered/esa-library/pdf/FY19-CESCF-Request-for-Proposals.pdf>. A land acquisition proposal must meet all of the mandatory conditions listed below, including:

1. The land acquisition complements, but does not replace, private mitigation responsibilities contained in the HCP;
2. The specific parcel(s) to be acquired with the grant money is identified;
3. Habitat must be set aside in perpetuity for the purposes of conservation; and

and Tundra.” Arctic and Alpine Research, Vol. 19, No. 4, Restoration and Vegetation Succession in Circumpolar Lands: Seventh Conference of the Comité Arctique International#. pp.479-489 (regarding road dust in the Alaskan Tundra). Instead of using these unrelated reference to support a narrow dispersal corridor, BLM's own technical references, scientific studies and published scientific reports support a far-wider dispersal corridor for cheatgrass. *See, e.g.,* King, Sarah R.B. et al. 2019. Potential Spread of Cheatgrass and Other Invasive Species by Feral Horses in Western Colorado. Rangeland Ecology & Management July 2019 (and literature cited) (noting dispersal effects of livestock, horses, ungulates and wildlife); Reisner, Michael D et al (2013). Conditions favouring Bromus tectorum dominance of endangered sagebrush steppe ecosystems. Journal of Applied Ecology (2013); Bartuszevide, Anne M. et al. (2008). Do ungulates facilitate native and exotic plant spread? Seed dispersal by cattle, elk and deer in northeastern Oregon. Journal of Arid Environments (2008); Jones, Allison *et al.* (2016). Implications of Longer Term Rest from Grazing in the Sagebrush Steppe: an Alternative Perspective. Journal of Rangeland Applications (2016).

4. The 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.

Importantly, the FEIS fails to demonstrate that the Agencies have identified any alternative lands to off-set and mitigate the impacts of the RMP Amendments and UDOT's application alignment route on these Section 6 lands. BLM cannot meet its NEPA obligations in this manner, and BLM needs to discuss and disclose all relevant information to the public regarding offsetting lands to allow the public reasonable ability to examine and respond. The FEIS has 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. Therefore, the Agencies' FEIS is inadequate.

H. The Agencies Have Failed to Take a Hard Look at The Impacts of the UDOT's Application Alignment on Lands Acquired Using LWCF Funds.

BLM has not taken the required "hard look" at potential environmental impacts. Under NEPA, the BLM must take a "hard look" at the environmental consequences of a proposed action, and the requisite environmental analysis "must be appropriate to the action in question." *See Metcalf v. Daley*, 214 F.3d 1135, 1151 (9th Cir. 2000); *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 348 (1989).

In the FEIS, BLM has arbitrarily limited its analysis of the impacts of the RMP Amendments and UDOT's application alignment on LWCF lands to only a 500-foot corridor on either side of the highway. FEIS at 3-170, Table 3.16-1. As noted in our DEIS comments, there are two problems with this approach. First, BLM cannot limit its analysis only to direct encroachment. Second, 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 habitat for Mojave desert tortoise and other wildlife, open space, as well as aesthetic and recreational values.

In the FEIS, the Agency identifies encroached LWCF parcels and the amount of acreage that would be encumbered. *See* FEIS App. O at 0-475. However, BLM has failed to analyze the UDOT's application alignment indirect or cumulative impacts on LWCF parcels. *See* FEIS Table 3.16-1 at 3-170. This table incorrectly assumes that the UDOT's application alignment will impact only 3 parcels totaling 3.9 acres.

A full analysis of the indirect and cumulative impacts to LWCF parcels and their conservation purposes caused by the highway shows that there are at least 15 parcels within the footprint of the UDOT's application alignment, totaling almost 832 acres of public lands that would be impacted by the UDOT's application alignment. As of the publication of the Draft EIS on June 12, 2020, BLM had used \$20,734,622.20 in appropriated funds on these acquisitions. *See* Red Cliffs Conservation Coalition Comments on the Northern Corridor Draft Environmental Impact Statement and Related Management Plans at 32-33.

BLM's failure to examine the impacts of the RMP Amendments and UDOT's application alignment on these lands violates NEPA.

I. BLM Did Not take a Hard Look at Each Alternative.

As part of the “hard look” duty, an agency must evaluate the effects of each alternative in a way that will inform the public and the agency’s understanding of whether and how the proposed action complies with applicable substantive statutes. According to the CEQ regulations, an EIS “shall state how alternatives considered in it and decisions based on it will or will not achieve the requirements of . . . other environmental laws and policies.” 40 C.F.R. § 1502.2(d); *see also* Oregon Nat. Desert Ass’n v. Bureau of Land Mgmt., 625 F.3d 1092, 1108 (9th Cir. 2010) (“because NEPA places upon an agency the obligation to consider every significant aspect of the environmental impact of a proposed action . . . the considerations made relevant by the substantive statute driving the proposed action must be addressed in NEPA analysis.”); Montana Wilderness Ass’n v. McAllister, 666 F.3d 549, 555, 558 (9th Cir. 2011) (holding that the Forest Service violated NEPA by failing to explain how the agency’s travel management plan for the Gallatin National Forest would comply with the Wilderness Study Act); League of Wilderness Defenders/Blue Mountains Diversity Project v. U.S. Forest Serv., 585 F. App’x 613, 614 (9th Cir. 2014) (“[b]ecause PACFISH/INFISH provides the approved strategy for managing riparian habitats and the criteria for assessing whether such habitats are adequately maintained, the Forest Service was required, under NEPA, to include an explicit PACFISH/INFISH analysis in its EIS.”).

The range of alternatives is “the heart of the environmental impact statement.” 40 C.F.R. §1502.14. NEPA requires BLM to “rigorously explore and objectively evaluate” a range of alternatives to proposed federal actions. See 40 C.F.R. §§ 1502.14(a) and 1508.25(c). In the Red Cliffs Conservation Coalition Comments on the Northern Corridor Draft Environmental Impact Statement and Related Management Plans at 113-114, we specifically asked the BLM to provide a range of alternatives for Zone 6 size and configuration and include at least one alternative for Zone 6’s physical footprint that optimizes the conservation and recovery of the Mojave desert tortoise (e.g., captures additional acreage that would enhance landscape scale connections for the Mojave desert tortoise). The BLM in the FEIS considered only one option in the action alternatives for the physical configuration of Zone 6; thus the BLM failed to meet its obligation to consider a range of reasonable alternatives in violation of NEPA.

It is unclear why BLM failed to consider a range of reasonable alternatives for the SGFO Amendment and Zone 6, when the Agency did consider multiple alternatives for the Northern Corridor Highway ROW, including 2 alternatives located outside of the Red Cliffs NCA. A simple, qualitative analysis of alternative impacts (i.e., looking through the tables in the FEIS) clearly shows that the RMP Amendments and UDOT’s application alignment would cause adverse impacts to the Red Cliffs NCA’s purposes and values, and that Alternatives 5 and 6, located outside of the NCA, would not. Therefore, Alternatives 5 and 6 would enable BLM to meet its purpose and need which is to develop an Environmental Impact Statement and Resource Management Plan amendments that are consistent with applicable laws, regulations, policies, and plans including the Omnibus Public Land Management Act of 2009 (Public Law 111-11); the National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4321-4347), as amended; the Endangered Species Act (ESA) (16 U.S.C. 1531 to 1544), as amended; the Land and Water Conservation Fund Act (54 U.S.C. 200301 et seq.); and others. (FEIS at Appendix C).

BLM should have carried forward a preferred alternative that is consistent with applicable laws, regulations, policies, and plans in addition to analyzing a range of reasonable alternatives for the size and configuration of Zone 6.

J. The FEIS fails to examine the cumulative impacts of the RMP Amendments.

The Council on Environmental Quality regulations implementing NEPA define cumulative effects as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such actions.” 40 CFR 1508.7. The FEIS failed to adequately assess cumulative impacts to the Mojave desert tortoise because it relied on a table of possible future projects, with terse descriptions and failed to assess multiple road projects that would adversely impact tortoise habitats in the Red Cliffs NCA and Desert Reserve, the proposed Zone 6, and the larger HCP analysis area, including: the Babylon Road, the extension of Navajo Dr., and the extension of Green Valley Dr.

FEIS Appendix O at 0-663 states that “Babylon Road is unfunded; thus, it is not considered in cumulative effects.” The road not being funded does not preclude it from cumulative impacts analysis under NEPA. *See Citizens for a Healthy Cmty. v. United States BLM*, 377 F. Supp. 3d 1223, 1238 (D. Colo. 2019) (“other actions—past, present, and proposed” must be included in a “meaningful cumulative impact analysis”). Agencies not only have an obligation to discuss the cumulative impacts of related projects; they also have an “affirmative duty to locate, describe, and consider other projects that could have cumulative impacts when combined with the project under consideration.” *See Edwardsen v. United States Dep’t of the Interior*, 268 F.3d 781, 786 (9th Cir. 2001), citing 40 C.F.R. § 1508.25(c)(3); *Kettle Range Conservation Group v. United States Forest Serv.*, 148 F. Supp. 2d 1107, 1129 (E.D. Wash. 2001).

BLM also fails to address the extensions of Navajo Dr. and Green Valley Dr. inside proposed Zone 6. The Navajo Drive improvements were included in the DMPO’s Draft 2019-2050 Regional Transportation Plan, and though they were conveniently removed from the plan prior to the DEIS, this does not guarantee that these projects won’t resurface. BLM totally fails to address the extension of Green Valley Dr., which would travel parallel to Navajo Dr. through the northern portion of Zone 6. The compounding effects of any of these roads desert tortoise and critical habitat in the Red Cliffs NCA would add significantly to the adverse, long-term impacts of the UDOT’s application alignment. BLM violated NEPA by not addressing these proposed roads.

Beyond adding a handful of previously unaddressed projects that would adversely impact desert tortoise critical habitat to the cumulative effects table (i.e., the Western Corridor, 30.8 miles of Warner Valley road projects, and the Good Earth Minerals Gypsum Mine), BLM failed to analyze the compounding effects of these projects on desert tortoise and critical habitat in the FEIS. BLM’s analysis came from 10,000-feet up, breezing through the impacts of ground-disturbing activities and the implementation of the HCP. *See FEIS at 3-230.*

BLM should have estimated the number of critical habitat acres that would be lost for each project in Table 3.28-2. These degraded and lost acres should have been added to the number of acres that would be degraded and lost due to the UDOT’s application alignment (perhaps as

many as 9,386 acres²¹). Finally, BLM should have calculated how many acres would remain in the UVRU following construction of the UDOT's application alignment and the projects in table 3-28.2. Precise estimates of project size (and critical habitat acres lost) may not be currently available to BLM for every project in table 3-28.2, but even general estimates would help BLM gauge how much critical habitat will remain for the desert tortoise beyond the cap of BLM's 20-25-year planning horizon. If BLM additionally factored in the critical habitat acres degraded and lost in the 2020 wildfires in the UVRU (at least 8,950 acres²²), the amount of viable critical habitat acres remaining in the UVRU would be minimal and well below the thresholds for recovery units or intensive management areas set by FWS in the 2011 Recovery Plan for the Mojave Population of the Desert Tortoise (*Gopherus agassizii*).²³

In this analysis, BLM ignores the major concerns associated with the take of desert tortoise and adverse modification of critical habitat associated with the UDOT's application alignment *and* fails to address the concerns over the conservation value of Zone 6. *See* Red Cliffs Conservation Coalition Comments on the Northern Corridor Draft Environmental Impact Statement and Related Management Plans at 94-114.

Additionally, BLM failed to adequately address relevant projects located outside of the Red Cliffs NCA and Desert Reserve. BLM entirely fails to address the cumulative impacts the Long Valley Road Extension would have on tortoise habitat²⁴, just mentioning the possibility that it will be built. *See* FEIS at 3-225. BLM also fails to address how the Lake Powell Pipeline may have growth inducing impacts in Washington County that could increase pressure on remaining desert tortoise habitats. *See* FEIS at 3-230.

Generalized, conclusory statements about the insignificance of cumulative effects or how they will be effectively mitigated, such as those given by BLM concerning the Lake Powell Pipeline, Western Corridor, Navajo Dr., and Babylon Road, will not suffice. *See Te-Moak Tribe of Western Shoshone of Nevada v. U.S. Dept. of Interior*, 608 F.3d 592, 606 (9th Cir. 2010) (failure to include quantified or detailed information on cumulative effects of past, present, and reasonably foreseeable mining activities). *See also Great Basin Mine Watch v. Hankins*, 456 F.3d 955, 971-74 (9th Cir. 2006) (holding cumulative impact analysis for gold mining operations inadequate because it consisted of "vague and conclusory statements, without any supporting data" and lacked any explanation for why other mining projects were not explicitly discussed).

²¹ This figure was calculated by multiplying the length of the UDOT's application alignment (4.5 miles or 7.24 km) and the maximum zone of impact for a roadway of 4.6 km (von Seckendorff Hoff and Marlow 2002) to determine the maximum extent of depression to the Mojave desert tortoise *north* of the right-of-way. This figure was added to the 1,335 acres south of the ROW (and north of the Red Cliffs NCA and Desert Reserve southern boundary) that the FEIS determines would be indirectly impacted by the highway. The actual figure may be slightly different as the UDOT's application alignment is not a straight line. Finally, note that BLM's claim that the 4.6 km zone of impact for roadways cannot be used to estimate the indirect impacts of the Northern Corridor Highway is mistaken. BLM claims that Hoff and Marlow's 4.6 km maximum roadway impact zone applies to unfenced roadways, and the Northern Corridor will be fenced, but nowhere in their study do the authors state this.

²² See footnote #4.

²³ "General requisites for determining number and size of DWMA's in a recovery unit are described in the Recovery Strategy (Section II.B.). Generally, reserves should be established within each recovery unit which are at least 1,000 square miles in extent, or if this is not possible, particularly intensive habitat and desert tortoise population management should be implemented to ensure long-term viability of the population" (1994 Desert Tortoise Recovery Plan). The Red Cliffs Desert Reserve is the DWMA in the UVRU, and at 97 square miles, is well below the 1,000 square mile target. Additionally, all designated critical habitat in the UVRU totals only 84 square miles, also well below the 1,000 square mile target set by FWS.

²⁴ BLM's Long Valley Road Extension ROW Final EA (DOI-BLM-UT-C030-2020-0004-EA) states that the ROW would directly impact 19.7 acres of tortoise habitat within the ROW and indirectly impact 73.6 acres in the surrounding area. A 2019 survey found 26 burrows in the survey area: 21 in good/active condition and 12 within the ROW. (Pg. 22). See also in exhibits "CSU Comments on the Long Valley Road Extension ROW EA" and "Attachment to CSU Comments on the Long Valley Road Extension ROW EA."

K. BLM failed to disclose all relevant information to the public, in violation of NEPA.

NEPA requires an agency to “insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken. The information must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA.” 40 C.F.R. § 1500.1(b). To fulfill NEPA’s public disclosure requirements, the agency must provide to the public “the underlying environmental data” from which the Forest Service develops its opinions and arrives at its decisions. *See Idaho Sporting Cong. v. Thomas*, 137 F.3d 1146, 1150 (9th Cir.1998), *overruled on other grounds by Lands Council v. McNair*, 537 F.3d 981 (9th Cir.2008) (en banc).

BLM violated NEPA (and the ESA) in failing to make public several key documents necessary to inform the public notice and comment phase of this process, including any Biological Assessment and Biological Opinion on the Washington County HCP and the BLM’s issuance of the NCH ROW, final biological report, 2019 USFWS workshop minutes, and Washington County’s application for an incidental take permit and all associated filings. The failure to timely provide public access to these documents - some of which remain secret to this day - inhibits the public’s ability to provide a significantly more detailed analysis of the UVRU, the full impacts of the proposed “take,” and the conditions of Mojave desert tortoise populations and habitat, and is otherwise crippling the ability to evaluate the effects of the RMP amendments. Their absence violates BLM’s duty under NEPA (and the ESA) to disclose all available information.” *See*, e.g., 16 U.S.C. § 1539(c) (requiring that “[i]nformation received by the [Service] as part of any [incidental take permit] application shall be available to the public as a matter of public record at every stage of the proceeding”; *id.* at § 1539(a)(2)(B) (requiring the Service to provide an “opportunity for public comment, with respect to a permit application and the related conservation plan”). *See also Gerber v. Norton*, 294 F.3d 173 (D.C. Cir. 2002) (reversing ITP because the Service failed to disclose ITP application at the earliest possible stage).

The FEIS 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. This failure inhibits the public’s ability to participate in the notice and comment process.

Furthermore, the FEIS referenced, but failed to provide public access to many critical documents, including the Resource Equivalency Analysis and Spatial Support Model. The FEIS provides an update on the tools used by FWS to evaluate the impacts of the right-of-way and possible conservation measures: “The USFWS considered 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; however, the USFWS decided to rely on existing models for the analysis.” 3-73. No rationale was provided for why the FWS decided not to rely on a spatial decision support model for the analysis. Additionally, the document fails to explain why the Resource Equivalency Analysis suddenly disappeared, though it is mentioned in the DEIS at 3-57.

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 until the FEIS, “The USFWS 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.” FEIS, App. O at 0-54.

Certainly, FWS analysis of the impacts of a high speed, 4-lane highway to what “may be the most important high-density cluster of desert tortoises in the recovery unit (USFWS 2020a)” might show that this loss could not be equalized by the addition of fragmented, dis-contiguous, poor-quality habitat in Zone 6 with a population of tortoises that BLM itself admitted that questionable: “additional years of survey data will be needed to validate Mojave desert tortoise density in proposed Zone 6.” *See* FEIS at 3-80; *see also* DEIS at 3-49. Not surprisingly, this discussion was removed from the FEIS without explanation. It was replaced with “future surveys may be done to refine the abundance estimate for proposed Zone 6.” *See* FEIS at 3-49. It appears that BLM did not share this study because they did not care for the results, just as they did not care for the assertion that more survey work is necessary in Zone 6 to support Washington County’s claim that there is a stable and robust population of desert tortoise there. “NEPA requires an agency to candidly disclose the risks of its proposed action and to respond to adverse opinions held by respected scientists.” *W. Watersheds Project v. Bureau of Land Mgt.*, 552 F. Supp. 2d 1113, 1129 (D. Nev. 2008). BLM must make draft and final versions of Resource Equivalency Analysis available to the public under NEPA.

For these reasons, BLM must disclose and allow public comments on the above discussed documents and reports in order to be NEPA compliant.

2.2 The Proposed RMP Amendments Will Allow a New Highway, Violating OPLMA.

The Omnibus Public Lands Management Act (OPLMA) of 2009 established the Red Cliffs NCA. “Congress designates NCAs on public lands to conserve, protect, enhance, and manage public lands for the benefit and enjoyment of present and future generations. NCAs offer exceptional scientific, cultural, ecological, historical, and recreational value.” FEIS at 3-176.

A. BLM must conserve, protect and enhance the Red Cliffs NCA’s objects and resource values in accordance with the Congressionally-defined purposes identified through OPLMA of 2009.

The Congressionally-defined purposes of the Red Cliffs NCA requires BLM 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 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).” 16 U.S.C. § 460www; P.L.111- 11, Title I, Subtitle O, § 1974(a). *See also* FEIS at 3-177 (“[l]and use planning goals, objectives, and management decisions in the Red Cliffs NCA RMP are consistent with the designation purposes, authorized uses, and other direction in OPLMA that relates to this NCA”). “[T]he Secretary shall only allow uses of the National Conservation Area that the Secretary determines would further” these goals. § 1974(b)(3)(e)(2).

BLM’s FEIS analysis found that the RMP Amendments, which will permit UDOT’s application alignment, would cause adverse impacts to the Red Cliffs NCA’s resource values and objects. The FEIS fails to demonstrate how the highway would conserve, protect or enhance these values, or how the proposed SGFO Amendment and addition of Zone 6 would eliminate impacts to the NCA’s Congressionally-established purposes. BLM’s analysis in the FEIS failed to show that UDOT’s application alignment would conserve, protect or enhance the statutory purposes of the Red Cliffs NCA. In fact, the FEIS found that the highway would cause adverse impacts to the NCA’s resource values and objects. *See* FEIS at 3-97–99.

In the FEIS, BLM attempts to remedy these issues by describing measures that would reduce the adverse impacts of the RMP Amendment to these objects and values²⁵, but these measures do not actually conserve, protect and enhance the objects and values of the NCA. Rather, they function as little more than a band-aid for attempting to minimize adverse impacts to the nine resource values protected in the Red Cliffs NCA, including federally-listed species, critical habitat, and NHRP-eligible sites.

B. Zone 6 Fails to Eliminate Impacts to the Red Cliffs NCA’s Congressionally-established purposes.

Additionally, the FEIS fails to demonstrate how the SGFO RMP Amendment associated with the proposed addition of Zone 6 to the Red Cliffs Desert Reserve could eliminate impacts to the Red Cliffs NCA’s Congressionally-established purposes. *See* FEIS at 2-23–2-33. For discussion of

²⁵ *See* UDOT’s Draft Plan of Development, November 2020

how Zone 6 fails to mitigate take of the federally-listed Mojave desert tortoise and adverse modification of critical habitat, and further discussion of the damaged quality, incompatible recreational uses, and failure of the proposed SGFO RMP Amendment to curb these issues, *see* Red Cliffs Conservation Coalition Comments on the Northern Corridor Draft Environmental Impact Statement and Related Management Plans at 94-96 and 106-114.

Importantly, no portion of Zone 6 would be brought into the National Landscape Conservation System (National Conservation Lands), which require different management from other BLM lands. The designation of NCAs, together with the establishment of the National Conservation Lands themselves, represents the cornerstone of a new era in land stewardship, in which BLM focuses on a mission of stewardship to: “conserve, protect, and restore nationally significant landscapes that have outstanding cultural, ecological, and scientific values for the benefit of current and future generations.” 16 U.S.C. § 7202 (2009).

In the FEIS, BLM admits that Zone 6 fails to mitigate damage to the objects and values of the Red Cliffs NCA:

“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.”

Appendix O at 0-494.

The FEIS then goes on to discuss additional mitigation measures that must be done if the Northern Corridor alternative moves forward in order to “be consistent with the management requirements for the NCA established in OPLMA.” *See id.*

These additional features and measures function as little more than band-aids slapped on a project that causes severe and adverse direct, indirect and cumulative impacts to the NCA’s objects and values. *See* Red Cliffs Conservation Coalition Comments on the Northern Corridor Draft Environmental Impact Statement and Related Management Plans at 115-119 and 154-168. At the root of this issue is the necessary acknowledgement that damage to a National Conservation Area’s purposes cannot be mitigated. Nor can design features and mitigation measures offered in exchange for paving over a National Conservation Area be expected to conserve, protect and enhance the area’s Congressionally-established purposes and values. The Red Cliffs NCA contains one-of-a-kind resources recognized for their regional and national significance. BLM’s acts are inconsistent with the management requirements for the NCA established under OPLMA and therefore arbitrary and capricious. *See* Red Cliffs Conservation Coalition Comments on the Northern Corridor Draft Environmental Impact Statement and Related Management Plans at 39 – 40 for further discussion.

BLM attempts, but fails to remedy major oversights related to the Agency’s responsibility to conserve, protect and enhance the NCA’s resources under 16 U.S.C. § 460www; P.L.111- 11, Title I, Subtitle O, § 1974(a). *See* FEIS at 3-178-179.

These “additional measures” are problematic for multiple reasons. The POD’s additional measures to conserve, protect and enhance the objects in the Red Cliffs NCA are insufficient.

First, habitat restoration in conjunction with WRI in the 2020 burn scars in the Red Cliffs NCA could certainly conserve, protect and enhance the values of the NCA if this restoration was implemented *independently* of routing a high-speed, four-lane highway through Zone 3 of the Red Cliffs NCA and Desert Reserve- an area that suffered an 8,950-acre loss of critical habitat due to 2020 wildfires *and* an area where desert tortoise population density had already declined by 63% in the last 22 years²⁶ *and* through a desert tortoise population cluster that may be “the most important high-density cluster of desert tortoises in the recovery unit (USFWS 2020a)” (FEIS at 3-80). There is dire need for habitat restoration, and if implemented independently of highway construction, this restoration would serve to conserve, protect and enhance the NCA’s values. However, in exchange for a highway that would take federally-listed species and adversely modify critical habitat- in addition to adversely directly, indirectly and cumulatively impacting scenic, recreational, cultural and ecological values, this restoration is moot.

Second, the suite of Mojave desert tortoise-specific measures described in Section 2.2.9.1 and Appendix D similarly fail to prevent illegal take of a federally-listed species and adverse modification of critical habitat in a National Conservation Area established 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)).”

Third, long-term UDOT monitoring of existing Mojave desert tortoise passages under SR-18 as well as the consideration of passage improvements fails to conserve, protect and enhance the desert tortoise, or mitigate habitat fragmentation, because culverts have not been proven successful and documented crossings occur minimally to never in the Red Cliffs NCA and Desert Reserve. (FEIS at 3-47). It is counterintuitive to claim that monitoring and improving passages to increase connectivity in exchange for fragmenting connectivity with a four-lane highway serves to conserve, protect, and enhance the values of the Red Cliffs NCA. It is also foolish to assume that tortoise crossings will occur in earnest following construction of the highway when they have not in the past. Additionally, biologists from UDWR or BLM would be more appropriate monitors of these passages, not UDOT staff. Finally, it is concerning that this measure includes language about considering passage improvements “in conjunction with future road construction projects.” It remains unclear what these projects are, where they are located in relation to the Red Cliffs NCA, whether these improvements are limited to the Northern Corridor Highway, and whether there are other projects planned for the NCA in the future.

Fourth, under-road passages for trails that would be fragmented by the highway would fail to actually conserve, protect and enhance the existing recreation values protected in the Red Cliffs NCA. With 190,000 visitors to the NCA in FY 2019 (FEIS at 3-155), and 46 SRP’s in 2020 (pers. communication with Kyle Voyles) recreation is a key value. Much work could be done to improve visitor experience, including restoration of the 66 miles of non-designated social trails on BLM-administered lands (FEIS at 3-49), habitat restoration to improve scenic quality, and improved and more frequent trail signage and educational panels. Implementing measures like these independently of the highway would serve to conserve, protect, and enhance the recreation values. Building under-road passages beneath the highway could help to maintain recreational connectivity, but would do nothing to mitigate the loss of visitor experience caused by increased visual disturbance, air, noise and light pollution caused by the 32-46,000 vehicles per day

²⁶ Tortoise density in Zone 3 dropped from 33.4 tortoises/km² in 1998 to 12.3 tortoises/km² in 2019, prior to the 2020 wildfires. *See* Regional Desert Tortoise Monitoring in the Red Cliffs Desert Reserve, 2019 Publication Number 20-06 Utah Division of Wildlife Resources, pg. 31

predicted by 2040²⁷, and the indirect impacts related to largescale landscape conversion and increased risk of wildfire. Finally, it is concerning that this conservation measure as described in the updated POD at 33 notes that the “T-bone Trail passage may be incorporated into the passage that would be designed for Mojave desert tortoise.” To avoid potential harassment, poaching, dog-off-leash, and other issues, human passages should be separated from tortoise passages.

Fifth, the installation of interpretive displays along the highway to promote recreation and public education related to the objects and values of the NCA is ill-conceived. Educational values of the Red Cliffs NCA are rooted in the public’s ability to experience and learn about the values of a primarily intact, natural landscape at the edge of one of the fastest-growing metro areas in the nation. People experience the Red Cliffs NCA as a refuge where nearby urban noise, views, smells, and stressors can be temporarily left behind. Learning about the values of a National Conservation Area from the side of a 4-lane highway with tens of thousands of vehicles flying by is highly ironic.

Finally, at 3-179, the Agencies’ assertion that “these measures...would reduce impacts and in some cases provide new opportunities to conserve, protect, and enhance the objects and values of the NCA” is problematic, because BLM has failed to demonstrate how routing a four-lane highway through a National Conservation Area can improve any of the objects or values for which the area was designated to be protected for present and future generations.

BLM must manage the NCA for the protection and preservation of its resources, and only allow uses that are not needed for protection of NCA values when those uses do not conflict with the directives of OPLMA. While discretionary uses may be allowed to continue if compatible with that charge, BLM must limit or prohibit such uses if they are in conflict with the values that the areas were designated to protect. The Red Cliffs NCA RMP must not be amended to grant a ROW for the UDOT’s application alignment because it violates the Omnibus Public Land Management Act of 2009.

²⁷ 2011 Washington Parkway Cost Benefit Study, Figure 20.

2.3 The Proposed RMP Amendments Will Allow a New Highway, Violating LWCF.

The Land and Water Conservation Fund Act (LWCF) is intended to preserve, develop, and assure accessibility to all citizens such quality and quantity of outdoor recreation resources as may be available and are necessary and desirable for individual active participation in such recreation and to strengthen the health and vitality of the citizens of the United States. P.L. 88-578. The Agencies cannot Approve an Alternative that Violates the Purposes behind the LWCF Acquisition.

BLM's granting of the RMP Amendments, paving the way for an ROW along the UDOT's application route, violates the Land and Water Conservation Fund Act and the Administrative Procedure Act. UDOT's application alignment will pave over – and directly, indirectly, and cumulatively impact these conservation lands. Yet, BLM somehow claims that these LWCF lands acquired for conservation purposes will continue to fulfill wildlife habitat purposes. *See* FEIS at 3-170. This conclusion is counter-factual and ignores the best available science showing that roads are a threat to Mojave desert tortoise habitat and populations, and that heavily-travelled four-lane highways are particularly anathema to Mojave desert tortoise conservation. *See* The 2011 Mojave Desert Tortoise Recovery Plan (USFW 2011) which referred to the 1994 Recovery Plan identifying road noise and vibration as having potentially significant effects on the desert tortoise's behavior, communication, and hearing (USFWS 1994). *See also* "Dominance and Environmental Correlates of Alien Annual Plants in the Mojave Desert, USA" (Brooks and Berry 2006) and "Resistance to Invasion and Resilience to Fire in Desert Shrublands of North America" (Brooks and Chambers 2011) for analysis of how roads increase the spread of nonnative plant species which reduces Mojave desert tortoise forage quality and increases the risk of fire within Mojave desert tortoise habitat. *See* "Roadside Ecology: Science and Solutions" (Forman and Sperling 2003) for how roads can be a direct source of fire ignition, increased litter, increased presence of predators, and increased toxicants into the environment. *See also* "Impacts of Vehicle Road Traffic on Desert Tortoise Populations with Consideration of Conservation of Tortoise Habitat in Southern Nevada" (von Seckendorff Hoff and Marlow 2002) for analysis of roadway zone of impact out to 4.6 kilometers.

BLM next admits that UDOT's proposed route will pave portions of conservation lands owned by the City of St. George, over which BLM obtained a conservation easement in 2002. FEIS at 3-170–3-171. And while BLM admits that it lacks authority to issue a ROW across lands it does not hold in fee title, and that any ROW for the Northern Corridor Highway will be "inconsistent with the express purpose of the conservation easement," *id.*, BLM pushes past these limitations by explaining that UDOT has agreed to "make reasonable efforts" to adhere to the conservation easement. But, as BLM admits, it lacks any authority to issue a ROW across lands owned by the City of St. George, irrespective of whether UDOT makes reasonable efforts to adhere to the provisions of the conservation easement.

Moreover, BLM cannot hide behind UDOT's unidentified conservation "efforts," especially when any efforts or provisions haven't been subjected to public notice and comment. UDOT failed to release the Final POD concurrently with the Final NEPA document, as they committed to doing in the Draft POD released June 11, 2019 at pages 4-5. On November 19, 2020, seven days after the NOI was published in the federal register, BLM finally published UDOT's November 2020 Draft POD. UDOT has failed to identify or disclose, in the November 2020 Draft POD or otherwise, any conservation efforts designed to adhere to the conservation

easement. In short, BLM cannot adhere to its NEPA obligations to fully and finally evaluate the direct, indirect, and cumulative impacts of the Northern Corridor Highway on the conservation values identified in the conservation easement between the City of St. George and BLM by punting this analysis to a third party. *See San Juan Citizens All. v. Stiles*, 654 F.3d 1038, 1056 (10th Cir. 2011).

BLM has failed in the FEIS to demonstrate how lands acquired with LWCF funds to conserve federally-listed species and critical wildlife habitat will continue to fulfill wildlife habitat purposes if a right-of-way is granted for UDOT's application route across these lands. A right-of-way along the UDOT's application route will violate the Land and Water Conservation Fund Act and the Administrative Procedure Act.

2.4 The Proposed RMP Amendments Will Allow a New Highway, Violating FLPMA.

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...BLM-administered...National Conservation Areas.” 43 CFR §3809.415. The RMP Amendments and the subsequent construction of the UDOT’s application alignment is clearly detrimental to the National Conservation Lands System, the Red Cliffs National Conservation Area and its purposes, the Red Cliffs Desert Reserve, the Upper Virgin River Recovery Unit (UVRU), and the Mojave desert tortoise, and the FEIS acknowledges that there are feasible alternatives located outside of the Red Cliffs NCA. *See* FEIS Appendix L at 16-17.

In fact, BLM misrepresents the conclusions stated in Section 3.5. This section lists many of the adverse impacts caused by the UDOT application alignment that would unnecessarily degrade public lands and harm the special status wildlife dependent upon these public lands and the designated critical habitat therein. Section 3.5 concludes that the UDOT’s application alignment would result in direct and indirect impacts to the threatened Mojave desert tortoise including “direct loss of occupied Mojave desert tortoise habitats, displacement and short-distance translocation of Mojave desert tortoise, and destruction of burrows, including the geologic and edaphic factors that facilitate borrow construction. Indirect effects include disturbance of Mojave desert tortoise adjacent to the ROW from noise and vibrations associated with construction and use of the highway, facilitating human intrusion into Mojave desert tortoise habitat, spreading trash and toxins in the environment, influencing predator abundance and distribution, facilitating invasion of nonnative plants, increasing the probability of fire ignition, disrupting home range and landscape movement patterns, and fragmenting habitat within lands specifically identified for the protection and long-term management of Mojave desert tortoise through the designation of Mojave desert tortoise critical habitat, establishment of the Reserve, and designation of the Red Cliffs NCA. Mojave desert tortoise habitat within the designated ROW would be destroyed (Table 3.5-12) including designated critical habitat.” *See* FEIS at 3-78.

Further, we asserted that the BLM was underestimating the amount of critical habitat that would be lost or substantially modified by the NCH through the Reserve. *See* Red Cliffs Conservation Coalition Comments on the Northern Corridor Draft Environmental Impact Statement and Related Management Plans at 97-99. As the BLM discusses in the FEIS at 3-45 to 3-48, roads cause an array of ecological effects that degrade habitat within a “road effect” zone. The BLM analyzed a road effect zone for the MDT using a road effect zone width of 508 m while the scientific literature points to larger road effect zones. *See, e.g.,* Hoff and Marlow 2002 (road effect zone up to 4.6 km) and Peaden et al 2015 (“Road-effect zones are one of the most insidious forms of habitat loss that contributes to biodiversity declines globally (Forman and Alexander 1998; Forman et al. 2003). Although roads themselves may comprise only a small portion of land use in many areas, their cumulative impact can extend far beyond their physical footprint. In the present study, road effects on populations extended 5–8 times farther than the widths of the roads themselves.”).

The BLM also relies without basis on the efficacy of crossing structures, perhaps to justify not counting the substantial diminishment of critical habitat quality within the larger road effect zone. *See, e.g.,* FEIS Appendix O at 0-660 (“numerous crossing structures would be included

for any of the project alternatives in the Reserve, thereby reducing the effects of fragmentation, including genetic deterioration”). However, discussion found in the FWS Draft Biological Report at 57 on the efficacy of crossing structures belies BLM’s assertion that crossing structures can mitigate impacts to MDT and critical habitat.²⁸

BLM acknowledges the adverse impacts caused by the UDOT’s application alignment to public lands, including those that are protected in American’s National Landscape Conservation System, but chooses to conclude that these impacts can be mitigated by UDOT’s design features and mitigation measures, even though these measures fail to prevent the take of federally-listed species and the adverse modification of critical habitat. *See* discussion elsewhere in these comments for why UDOT’s design features and mitigation measures fail to mitigate damage to the Red Cliffs NCA resources and values.

In bifurcating a core Mojave desert tortoise area within Red Cliffs NCA and Reserve that is considered integral to the integrity and viability of the UVRRU and thus to the tortoise range wide, and in ignoring alternatives located outside the Red Cliffs NCA, the UDOT’s application alignment 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 for the UDOT’s application alignment.

Additionally, 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 highway for some proposed Zone 6 BLM lands within the existing SGFO RMP designated Red Bluff ACEC. Given the documented Mojave desert tortoise declines in the UVRRU 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 highway approval.

²⁸ The USFWS noted in its draft biological report (at 57) that

“...local multi-year data using wildlife cameras facing culvert openings only documented one desert tortoise using any of the monitored culverts in the UVR recovery unit. In addition, no desert tortoises were recaptured on the opposite sides of the five Red Hills Parkway culverts since they were installed (McLuckie 2019). Finally, while the local data did document desert tortoise use of culverts for shade or shelter, culverts can also become an entrapment risk during flash flood events (USFWS 2014a) or draw predators and become a population sink. Culverts along roads convert an impermeable barrier into a semi-permeable barrier, as not all individual desert tortoises that encounter a culvert will use it.”

....“Studies have not been conducted to determine whether culverts are sufficient to support demographic needs for desert tortoises. Supporting demographic population recovery (i.e. rescue effects) in an area depleted of desert tortoises requires successful recruitment. Population recovery is most likely to occur when adult females can access and establish nests in a new area or juveniles establish home ranges in the new area (Doak et al. 1994, Palmer et al. 1998). Female desert tortoise home ranges may be less than half the size of male home ranges (USFWS 2011) and preliminary data suggest juveniles may only use culverts for passage 10 percent of the time. Given high uncertainties, instead of estimating the number of adult females and juveniles that would need to cross, we estimated the effectiveness of improving permeability. Assuming culverts are spaced to local female home range distance and prioritized in washes (which desert tortoises may use as movement corridors), we estimate maximum demographic effectiveness from culverts of 5 to 15 percent (McLuckie 2005, Dutcher et al. 2019, Averill-Murray 2020, Holcomb 2020, McLuckie 2020a). Attributing higher effectiveness from culverts alone is too risky given the high uncertainty and importance of the areas where connectivity needs to be improved to support the viability of the UVR recovery unit.”

2.5 The Proposed RMP Amendments Will Allow a New Highway, Violating the ESA.

The Endangered Species Act (ESA) requires every federal agency to obtain review and clearance for activities that may affect listed species or their habitat. If an activity authorized, funded, or carried out by a federal agency may affect a listed species or its designated critical habitat, that activity cannot go forward until consultation (a biological review of the proposal by FWS or NMFS) ensures that it will not “jeopardize” the species or result in the “destruction or adverse modification” of designated critical habitat. 16 U.S.C. § 1536(a)(2); 50 C.F.R. § 402.14(a). The Services have a statutory duty to use the best available scientific information. 16 U.S.C. § 1536(a)(2); 50 C.F.R. 402.14(g)(8).

“Jeopardy” results when it is reasonable to expect that the action would directly or indirectly 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. Survival is the condition in which a species continues to exist into the future while retaining the potential for recovery. USFWS & NMFS 1998 at 4-36 to 37. This condition is characterized by a species with a sufficiently large population, represented by all necessary age classes, genetic heterogeneity, and number of sexually mature individuals producing viable offspring, which exists in an environment providing all requirements for completion of the species' entire life cycle, including reproduction, sustenance, and shelter.

The USFWS in the recovery plan for the Mojave desert tortoise established five recovery units. All are deemed necessary for the tortoise’s survival. USFWS 2011 at 41 and USFWS 2020 at 14 (“We consider these five recovery units necessary to conserve the genetic, behavioral, morphological, and ecological diversity necessary for long-term sustainability of the entire listed species (Awise 2004, Mace and Purvis 2008, USFWS 2011)”).

Mojave desert tortoises require essential habitat elements as discussed in the critical habitat listing rule (59 *Federal Register* 5820–5866) and in the draft biological report. USFWS 2020 at 22-29. These tortoises need habitats that are resilient, redundant, and representative. USFWS 2020. Demographically, these tortoises’ requirements are discussed in the draft biological report. USFWS 2020 and the 2011 Recovery Plan at 58-65. Generally, Mojave desert tortoise populations need to be of sufficient size, genetically connected to other populations, and have a positive growth rate over long periods of time.

According to USFWS (2020 at 31), “a population with a minimum density of 10 adult desert tortoises per mi² would require at least 500 mi² to be genetically viable (5,000 adult desert tortoises). Multiple smaller areas may need to be intensively managed in areas unable to support 1,000 mi² (such as the UVR recovery unit).” The 1994 Recovery Plan states 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). The draft biological report (USFWS 2020) asserts that while the 1994 recovery plan set a minimum target abundance of 5,000, a figure of 3,000 for each Analytical Unit might be appropriate presuming densities are not too low (page 37 and 38): “We determined that 3,000 adult desert tortoises with greater than 39 adult desert tortoises per mi² may represent realistic abundance and density targets to prevent genetic deterioration over the next 50 years or two desert tortoise generations.” The USFWS goes on to say that AU populations under 3,000 under not necessarily self-sustaining. USFWS 2020 at 38.

Designated critical habitat in the UVRU totals 54,600 acres or 85 square miles and is highly fragmented with limited connectivity to other recovery units. The USFWS extrapolated Mojave desert tortoise survey results from within the Tortoise Conservation Area within the UVRU to all modeled habitat within the UVRU to conclude that the UVRU has a population of 10,000 Mojave desert tortoise (FEIS at 3-60), however the BLM and USFWS acknowledge that this is an overestimate because habitat and populations are healthier within the TCA than outside it. FEIS at 3-60. We would also add it is a substantial over-estimate because modeled habitat is *not* suitable habitat but rather habitat that has the inherent physical potential to be occupied without consideration of the condition of the habitat. *See* Red Cliffs Conservation Coalition Comments on the Northern Corridor Draft Environmental Impact Statement and Related Management Plans at 92-94. The DEIS at 3-47 (and the draft biological report at 37) stated that the UVRU had a Mojave desert tortoise population of 4,450 desert tortoises while the FEIS removed that figure and instead relies on the above figure which is over-estimated.²⁹

The UVRU is the smallest and most fragmented of the five Recovery Units established for the Mojave desert tortoise range wide and thus is highly vulnerable. FEIS at 3-57-58. The UVRU of all the recovery units is highly vulnerable because of its isolation, fragmentation, and small size. Population growth rates are reflecting that vulnerability and are considerably lower than the required minimum growth rate to avoid extinction.

The FEIS acknowledges that “[d]eclines in Mojave desert tortoise populations are...exacerbated by the increasing urban interface with tortoise habitat in the analysis area.” FEIS at 3-231. More people results in great air and water pollution. This, combined with the increasing pervasiveness of invasive nonnative grasses facilitated by increasing levels of GHG (particularly nitrous oxide), feeds extensive fires and results in habitat conversion threatening the integrity of the Reserve and ultimately accelerating the continued decline of Mojave desert tortoise. *See id.*

Amending the RMP clears the way for the NCH, which jeopardizes the population of the threatened Mojave desert tortoise, thereby violating the ESA.

²⁹ Multiple figures that capture the vulnerability of the desert tortoise population in the UVRU or the adverse impacts of roads were removed from the FEIS. Concerningly, at 3-46, BLM removed crucial information on highway impacts to long-term desert tortoise viability that had been included in the DEIS at 3-35: “Adult tortoises located near high traffic roads were at least 30 percent smaller (and below the typical size for sexual maturity) than tortoises associated with lower traffic volumes or no roads (Nafus et al. 2013). A reduction in the average size of individuals may result in lower population growth rates. Overall, these observations may indicate that habitat near roads used by as few as 300 vehicles per day represents sink habitat for desert tortoises (Nafus et al. 2013).” This material was removed from the FEIS without explanation. The NCH can be considered a high traffic road according to the Dixie Metropolitan Planning Organization’s traffic projections for 32 to 46 thousand vehicles per day by 2040 (*See* Washington Parkway Cost/Benefit Study 2011 at Figure 0 which provides daily traffic projections for an alignment that is most similar to the UDOT’s application alignment). This means that tortoises living adjacent to the highway could be 30% smaller and unable to reproduce, creating a habitat sink.

3. Accountability of Issues

3.1 Summary

The following table summarizes the comments made on the DEIS and related plans/amendments by major heading as defined in the [Comments'](#) Table of Contents, describing how many were adequately addressed in the FEIS or were deemed not applicable(NA) due to scope of the protest, were not adequately addressed, and were not addressed. In some cases, new issues were introduced in the FEIS.

EIS Section	Comments	Response				
		NA	Adequately Addressed	Inadequately Addressed	Not Addressed	New Issue
2.2 Key Legal Issues	7			7		
2.3 Scoping Comments	1	1				
2.4 CEQ rules	1		1			
2.5 Objection to ITP	1	1				
2.6 Objection to WaCo	36	36				
DEIS Chapter 1 P&N	11		4	7		
DEIS Chapter 2 Alts.	16		5	3	5	3
DEIS Chapter 3						
3.1 Intro – Analysis	2		2			
3.2 Native Veg	5		1	1	3	
3.3 Special Status Plants	13		1	4	1	7
3.5 Special Wildlife	24			22	2	
3.7 Geology	1		1			
3.8 Paleontology	2			2		
3.13 Visual Resources	7		1	3	3	
3.14 Cultural Resources	4			4		
3.15 Recreation	19			14	5	
3.16 LWCF	6			6		
3.17 BLM Travel	2			2		
3.18 NCA	1			1		
3.20 BLM Lands	1			1		
3.22 Fire and Fuels	12				12	
3.23 Noise	1			1		
3.26 Socioeconomics	17		3	12	2	
3.28 Cumulative Effects	25			23	2	
3.29 Air /Climate	5		1	2	2	
Chapter 4 Consult/Coord	2		1		1	
Appendix H Inconsist.	4			3	1	
Appendix J Alternatives	20			20		
Appendix L Traffic	1			1		
HCP	23	23				
HCP Impl. Agreement	15	15				
UDOT POD	15	15				
Total	300	91	21	139	39	10
Percent of total		30%	7%	46%	%13	3%
FEIS Process Issues	5	2		3		

3.2 Accountability of DEIS Comments and Related Plans/Amendments

This section reflects a determination of if and how well our DEIS issues were addressed in the FEIS. They are accounted per their section headings in our DEIS Comments.

3.2.1 Accountability of DEIS Comments, Major Considerations

Referencing our DEIS Comment section numbers:

2.2 Key Legal Issues

These issues are addressed in section 2 of this document, [Points of Protest](#)

2.3 Scoping Comment Accountability

1. The DEIS and DHCP should describe how each scoping comment was addressed and why.

Scoping comments are addressed in FEIS Appendix O, although generally not very adequately.

2.4 Applicability of the Council on Environmental Quality Rule Change

1. The new CEQ Final Rule should not be applied to this NEPA process.

Adequately addressed

2.5 Objection to the ITP, based on the ESA and Draft HCP

1. We register an Objection Pursuant to 50 CFR Section 17.22 (E) to Flawed Washington County Incidental Take Permit Application with Inadequate Draft Habitat Conservation Plan TE036719

Inadequately addressed, but declared out of scope for the FEIS protest.

2.6 Objection to Washington County Misuse of Resources and Misinformation

Note: all of these issues are of the nature that would not be addressed in an EIS. They were included for the record, and are accounted as “not applicable” for the FEIS.

1. 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.
2. DMPO has stated that a road through the NCA was required because no other solutions would work. They rejected CSU alternatives, stated they would not provide the required relief, and then refused to share the modeling that indicated that statement was true. The DEIS shows that the statement is not true in that alternatives 5 and 6, which were based on the CSU alternatives, are superior in relieving traffic congestion.
3. This statement ignores the scientific fact (DEIS Vol 3 page 3-35) that tortoise impacts can extend 4.6 km beyond the ROW.
4. It is untrue that the county is proposing to protect this area from future development. Roadways are planned to bisect this area (per DMPO 2020-2050 plan), and there is no certainty that SITLA land can be protected. Furthermore, as evidenced by this very DEIS, county promises to protect land can easily be rescinded.
5. It is a false statement that the NC “may impact” 250 acres. The science indicates that approximately 12,000 acres would be impacted. (See [comments in Section 3.5](#) at “The DEIS fails to take a hard look at the impacts to MDT” for discussion.)
6. The county appears to be communicating with only a subset of its constituents. All constituents should receive the same messages and have an opportunity to question them.

7. The definition used in the letter is incorrect and misleading. A failed intersection is one in which more traffic queues into the intersection than exits it in a certain amount of time, at some specific time of year and time of day. It is not, as the statement implies, a permanent condition; in fact, the duration may be short.
8. It is untrue that intersections will fail without the Northern Corridor. It is true that some intersections will fail at certain times for certain duration if no solutions are implemented. There are alternatives to the Northern Corridor that are superior solutions. Some people just don't like them, for invalid reasons. The alternatives have really only been designed to the "concept" level, as required in order to model. Detail design options could remove concerns. They just need a discussion, which the county refuses.
9. The county is hardly the underdog, when almost all of the elected officials in the state, including the congressional delegation and the Department of Interior want something to happen.
10. The environmental laws undercut by the Northern Corridor effect all Americans. Should they not be able to have an input? The public lands belong to them, after all. The Northern Corridor proponents have engaged many people outside of Washington County to achieve its approval; certainly turn-about must be fair play. The County has chosen to make this issue a national one, and have refused to resolve it locally.
11. It is inappropriate for the county to use public funds to develop and maintain a website that serves, hand in glove, the Washington County Republican Party's Northern Corridor promotion efforts. NEPA is supposed to be conducted by government entities in a neutral manner. But the county is clearly trying to undercut the public's investment in the NEPA documents through simultaneously working with the Republican party to use public funds to generate support for the Northern Corridor.
12. The county is orchestrating this improper county-Republican coordination. The proposed Northern Corridor has been highly controversial for many years, and many county residents share strong concerns about and opposition to it. A simple Google "Northern Corridor Red Cliffs" web search should yield some of the many local published letters to the editor and opinion pieces against the Northern Corridor. County officials are therefore failing to represent the concerns of many of their constituents, and many of those paying the county taxes. The county is not a private entity that is free to spend their money to promote the Northern Corridor. Public funds should not be used for such "lobbying" on a controversial issue, especially during the NEPA review process.
13. This statement is a disservice to the community, implying that the NEPA process is a vote, with no indication that comments must be substantive.
14. This appears to direct people to a publicly-funded website to make a biased submittal.
15. We have no indication that the statement about the agencies' disagreement is correct.
16. The communication admits that if not for political influence- in what is supposed to be a science and fact-based process- undermining laws, the NC would be rejected, which is of course true.
17. It is clear that there is improper political influence on a NEPA process that is supposed to be fact-based and unbiased. The fact that the DEIS states a preference for the County/UDOT alternative inside the NCA, when there are clearly superior alternatives outside the NCA, while stating no rationale, is an indication of this improper influence, and undermining of NEPA.
18. County in the past have been against the Northern Corridor
19. We have offered many times to have fact-finding sessions with the county, and they have refused. The county has been anything but transparent, withholding information requests, refusing communications, and denying solutions proven viable by the DEIS.

20. We know of no one who has stated this myth. We agreed that the pursuit of the Northern Corridor has been persistent over many years. The hasty part is the NEPA process.
21. Again, it is untrue that the Northern Corridor was promised in 2009 (OPLMA³⁰).
22. Per section 1977. Washington County Comprehensive Travel and
23. Transportation Management Plan, subsection b.2.A, on page 99:” In developing the travel management plan, the Secretary shall 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”. (underlining added.) It does not promise a highway, and it certainly does not promise one in the NCA. It only says it will identify alternatives in the county.
24. The 300,000 hours added to residents’ commute times is misleading propaganda. The county will have 300,000 residents, at least, by the time some intersections fail at certain times on certain days of the year. That means the average resident will spend an extra hour per year, or less than 10 seconds per day. Yes, this is an overly simplified calculation, intended to show the bias in the county’s communication.
25. There are no provisions in place to prohibit development along a northern corridor route in the NCA if that route provides access to private inholding, which the preferred route does. The county has proven by this NEPA application that it is not bound by any previous agreements.
26. SITLA is under no obligation to protect their lands in Zone 6. To the contrary, they are obligated to make money off their lands. Washington County or the BLM could purchase the land, but it would be expensive, there is not an adequate budget defined for it, and even if it were to be purchased, this NEPA application proves that the county will not be bound by any agreement not to develop it.
27. We know on no such myth.
28. It is untrue that any of the “outside the NCA” alternatives would require the removal of Dixie Rock. (See description in DEIS appendix J, section 4).
29. The destruction of habitat in the ROW is only a small part of the harm. Impacts extend to 4.6km on either side of the ROW (DEIS Vol 3 page 3-35). Continually addressing only the construction zone is misleading. If a highway were to be built next to your home, even though your home was not destroyed in the construction process, would you say you had no impact? Indirect effects impact tortoise mortality.
30. The concept that roads are good for fire management is untrue. Humans cause 80% of the fires, with a large portion caused by humans using roads. Roads are not firebreaks, as has been proven many times, even locally in the Turkey Farm Road and Cottonwood Trail fires this year.
31. The county has not been transparent, as evidenced by the walls erected to prevent information access and their refusal to engage their constituents in open discussion with fact-checking.
32. It is untrue that special interest groups from out of state have mobilized. We have mobilized citizens of Washington County and Utah, and the environmental protection groups to which they belong, to engage in the only communication the county will allow. They are mobilized because this project will affect them.
33. Again, using a taxpayer supported public website to promote a position that has significant constituent opposition, while not allowing equal access to those opposing.
34. It is untrue that to state the county’s preferred alternative is the only viable solution, as proven in the DEIS (appendix J, section 4).

³⁰ <https://www.govinfo.gov/content/pkg/BILLS-111hr146enr/pdf/BILLS-111hr146enr.pdf>

35. Alternatives outside the NCA also “reduce carbon emissions, preserve our air, and protect our health”, while providing superior traffic movement and causing none of the environmental impacts.
36. The DEIS differs with the county’s opinion that their preferred solution protects the tortoise (see DEIS Executive Summary table ES 5-1). The DEIS offers no explanation for the preference.

3.2.2 Accountability of Comments on chapters/sections of the DEIS

Chapter 1 - Purpose and Need for Action

1. 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.
Inadequately addressed in the FEIS.
2. OPLMA requires an alternative for the Northern Corridor to be defined in the county. It does not require one to be accommodated, and it does not require accommodation within the NCA. The ROW should be denied.
Inadequately addressed in the FEIS.
3. “DOI policy goals” of accommodating local requests cannot violate OPLMA.
Inadequately addressed in the FEIS.
4. There has been no public consultation on the alternatives considered in the DEIS. 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.
Inadequately addressed in the FEIS.
5. 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.
Inadequately addressed in the FEIS.
6. The applicant’s need for future traffic congestion reduction is self-inflicted due to poor land use planning, poor growth management, poor integration with transportation planning. The county has not adopted the growth planning as defined by citizens in the Vision Dixie principles. Proper growth planning could also make mass transit an

effective solution. The American public and the citizens of Washington County do not support damage to the NCA just because the county has mismanaged its growth and transportation planning.

NA.

7. The applicant has failed to account the impact of anticipated technological improvements (e.g., self-driving vehicles, smart traffic management)

Inadequately addressed in the FEIS.

8. 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).

NA

9. 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.

NA

1.3 Purpose and Need for Federal Actions

1.3.1 Right-of-way Application and Red Cliffs National Conservation Area Resource Management Plan Amendment

10. Nothing has changed since the denial in the RMP. Why is this even being considered now?

NA

11. There is no valid “shared natural resource management goal” in this instance.

Inadequately addressed in the FEIS.

Chapter 2. Proposed Action and Alternatives

1. While 3 of our alternatives were considered in the final analysis, they were combined/modified without explanation. The modifications resulted in both more extensive and more restrictive solutions. Please explain the logic used to derive the resulting two alternatives.

Not addressed in the FEIS.

2. The above link takes the reader to <https://eplanning.blm.gov/eplanning-ui/project/1502103/510> which does not describe the process. As the author of the basis of two of the alternatives considered in the final analysis, it seems we should have been included in the process that interpreted and modified the alternatives to be considered. We believe the alternatives were modified inappropriately.

Not addressed in the FEIS.

2.2 Northern Corridor Highway

3. Really no additional information in J. What is the detail referenced?

Not addressed in the FEIS.

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.

NA

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.

Inadequately addressed in the FEIS.

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.

Inadequately addressed in the FEIS.

7. The DEIS rates the BLB 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.

Not addressed in the FEIS.

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.

NA.

2.7.1 Northern Corridor Highway Alternatives Considered but Eliminated

2.7.1.2 Increased Use of Mass Transit

9. This analysis shows limited thinking. Existing “local planning and available funding” is not a valid reason to violate protections on public lands. It is true that if the St George metropolitan area continues its sprawl growth pattern, mass transit is not viable. It is this growth pattern that has caused the problem the Northern Corridor is proposed to solve. It is not responsible of the BLM to address traffic problems caused by poor planning. Mass

transit would be viable if the area implemented a “smart growth” policy as was defined in Vision Dixie.

NA.

2.7.1.4 Land Use / Growth Regulation

10. The statement highlighted above is based on an erroneous premise: we submitted an alternative of implementing the Vision Dixie non-sprawl growth model and protections for public lands. This was developed by citizens with local governments and adopted, however it was an adoption in word rather than deed. We dispute the contention that the Land Use alternative is inconsistent with objectives of local municipalities. Those municipalities are willfully enabling development against the input of citizens, causing continual conflict with public lands protections. It should not fall on the BLM to accommodate poor land use planning that would necessitate violation of protected lands. It is a local government option to let growth occur in a manner that disables reasonable transportation planning. It is not a viable reason to violate protections on federally-managed land. We disagree with the DEIS ascertain that land-use planning is out-of-scope. A local government should not be able to create the conditions for an application through poor planning/management.

NA.

2.7.1.5 Community Transportation Alternative

11. Thank you for considering these alternatives, even though in modified form. CSU’s alternative 1 and elements of alternative 2 roughly correspond to the DEIS alternative 5; other elements of CSU alternative 2 roughly corresponds to DEIS alternative 5; and CSU alternative 4 roughly corresponds to DEIS alternative 6. It appears that the DEIS alternatives are defined in a manner that maximizes costs and business impacts, and that more economical solutions could be defined. And yet, even so, they seem to be superior to the BLM-preferred option.

NA.

12. This seems to be an inadequate explanation. Errors or purposeful ignorance in land use planning caused the application initiating this DEIS. The county has failed to adequately plan for growth and related transportation improvements. All of the alternatives completely or substantially outside the RCNCA involve land use planning outside the decision space of the DEIS. This is an inadequate excuse to not consider these other alternatives. They have direct bearing on the need to place a highway in the NCA. The DEIS did not adequately address the exclusions of these alternatives. Under NEPA, federal agencies are obligated to consider feasible alternatives beyond their jurisdiction. Rejecting these alternatives for that reason is invalid.

Inadequately addressed in the FEIS.

13. Conclusions offered here are not based in facts that have presented. We contest the conclusions. Alternative 3 would enable traffic to avoid the problem intersections. Alternative 8 would be practical if coupled with the growth planning defined in Vision Dixie. Alternative 10 would definitely reduce traffic at the troubled intersections. The DEIS dismissed these alternatives with inadequate analysis.

Inadequately addressed in the FEIS.

New issues introduced in the FEIS

Cost Estimates

- 1. Cost estimates for the alternatives were introduced without public comment in the FEIS.*
- 2. The purpose and use of these estimates were not explained.*
- 3. The cost estimates were based on invalid design assumptions concerning the alternatives outside the NCA*

Chapter 3. Affected Environment and Environmental Consequences

3.1 Introduction

3.1.1 Background

3.1.2 Analysis Methods and Assumptions

1. The DEIS should but does not address impacts that occur due to planned future actions in that the county/Dixie Metropolitan Planning Organization's plans for future road construction omits plans past 2040. Plans through 2050 indicate significant impacts to the proposed Zone 6. These impacts should be included in the analysis of the efficacy of Zone 6.

NA.

2. "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.

NA.

3.2 Vegetative Communities

3.2.2.1 Analysis Methods and Assumptions

1. The DEIS uses the Landscape Fire and Resource Management Planning Tools (LANDFIRE) 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:

Addressed in FEIS: Inadequately addressed –*FEIS still does not provide the Jacobs 2020f report, citing the need for brevity but makes it available upon request. On request Jacobs 2020f was made available, but it still should have been readily available for public review in the DEIS.*

2. It is unclear how the Jacobs (2020f) plot analysis is actually used.

Addressed in the FEIS: NO – *see above; not clear how many plots were sampled or the location of the plots.*

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

Addressed in FEIS: NO – *It was determined not to be necessary based apparently on "agency discretion".*

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).

Addressed in the FEIS: YES – *an improvement*

3.2.1.2 Exotic and Invasive Plant Species

1. One of the documented vectors for the spread of invasive plant species are roads (Gelbard and Belnap 2003; Speziale et al. 2018). Alternative 2 through 4 allow for the construction of a new road within the boundaries of the Red Cliffs NCA and the Red Cliffs Desert Reserve, which would result in new opportunities for invasive plant species introductions and spread. While the DEIS puts in safeguards for desert tortoise (DEIS at 2-7), shockingly, it does not provide any minimization or mitigation measures for road construction. Typically, DEIS' provide a long and comprehensive list of Best Management Practices (BMPs) for linear construction projects, but we were unable to locate any basic BMPs in this DEIS. Conventional BMPs for construction always include minimization and mitigation measures to minimize the introduction of invasive species and typically include a plan for detection and eradication of invasive species along the construction ROW. The fact that BMP are not even acknowledged, much less provided to the public and decision-makers is a fatal flaw in the DEIS.

Addressed in FEIS: NO – *Issue identification and response to comment missing in FEIS*

2. 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 non-native 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”.

Addressed in FEIS: Inadequately addressed – *Revert to the requirement of a “Noxious Weed Management Plan” to be developed for any action alternative. Noxious Weeds is a special connotation designated by USDA and does not include all invasive weeds. For example, cheatgrass is not listed as a “noxious weed” by the USDA. The Noxious Weed Management Plan should have been part of the EIS process – available for public review.*

3.3 Special Status Plants

3.3.1 Affected Environment

1. 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.

Addressed in FEIS: YES – *If species is not federally listed, they are not including it. BLM lands outside of HCP provides habitat and therefore BLM sensitive plants are not covered under the HCP.*

[Our Comment] “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:

“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.”

Addressed in FEIS: YES – *Interesting...we’ll see what the ITP says, but I’m pretty sure it won’t cover the plants - response to H.65-77 states “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. 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.”*

[Our Comment] “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 states³¹:

“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).”

Addressed in FEIS: Inadequately addressed – *“Refer to response to H.65-77” (which is the above comment) The supporting discussion below is not responded to.*

[Our supporting discussion Comment] “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)

³¹ Services” refers to both the U.S. Fish and Wildlife Service and the National Marine Fisheries Service.

Section 3.7.2 of the Handbook explicitly addresses listed plant and their designated Critical Habitat stating:

“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.”

Handbook at 3-28 (emphasis added).

While “take” permits for plants are not required under the Endangered Species Act, the U.S. Fish and Wildlife Service “cannot issue a permit that would jeopardize the continued existence or adversely modify the designated critical habitat of any listed species, including plants, so addressing listed plants in the HCP may be prudent.” (Handbook at 7-2, emphasis added). The Handbook highlights a “Helpful Hint” that states:

“Helpful Hint: All ESA-listed species that will be taken through implementation of covered activities must be included as covered species, or we cannot issue the incidental take permit (unless covered by another ESA mechanism). The applicant must adjust covered activities to avoid take of ESA-listed species that are not covered by the HCP.”

(Handbook at 7-3, emphasis original)

A second “Helpful Hint” states:

“Helpful Hint: You must have at least one ESA-listed animal species to do an HCP. Encourage applicants to also include listed plants if any occur in the plan or permit area; and proposed or candidate species that may be listed during the life of the permit if they may be impacted.”

(at 7-6, emphasis original, underlining added). Appendix C of the Habitat Conservation Plan for Washington County, Utah – Final Draft Restated and Amended, dated May 2020 (HCP) tries to justify reasons for not including the listed plants as covered species under the HCP.

In each case, for the five listed plants that are addressed, the HCP relies on BLM management of public lands for the species conservation, without providing any substantive evidence that such safeguards are in place. In fact, only one Area of Environmental Concern (ACEC)- the Red Bluff ACEC- has the potential to prioritize conservation over other multiple use mandates of BLM-managed lands. The Red Bluff ACEC includes populations of the dwarf bear poppy and Holmgren milk-vetch, but in both species cases most of the populations occur outside of the ACEC on BLM-managed lands managed for multiple use, SITLA lands and private lands. None of the other three listed plants occur within the Red Bluff ACEC. Although suitable habitat for Siler’s pincushion cactus is modeled in the Red Bluff ACEC, it has never been found there to date. While we recognize that the private lands managed by The Nature Conservancy’s White Dome Preserve are managed for conservation and protect the dwarf bear poppy and Siler’s pincushion cactus, that 800- acre preserve contains only a small portion of the known species occurrences. Only a small portion of the Shivwits milk-vetch populations are within the boundary of the Red Cliffs NCA and Red Cliffs Desert Reserve west of the I-15. “

2. 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.

Addressed in FEIS: Inadequately addressed – *“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.” The rest of the comment below is not addressed.*

[Our Comment that is not responded to] “Currently, the best publicly available science on the status of these species by species is provided below:

Dwarf Bear-poppy (*Arctomecon humilis*)

In USFWS Five Year Review (2016) of the dwarf bear poppy, it found the following:

“Land development on dwarf bear-poppy habitat has had a significant negative impact on the species since listing, with up to 50 percent of the habitat lost and development continuing to increase in the area, likely resulting in additional habitat loss on State and private lands. This habitat loss and fragmentation has also resulted in a reduction in pollinator diversity for the species, which can negatively impact reproduction and decrease gene flow. With increased human population and development come increased pressure from recreation, which may also impact pollinator presence and diversity.”

(at 37)

The five-year review notes that despite the designation of the Warner Ridge/Ft. Pearce ACEC (4,281 acres) and the Red Bluff ACEC (6,168 acres) designated in the 1999 and the proposed Webb Hill ACEC in 2015, it states:

“The designation of ACECs at two of the populations on BLM lands and the creation of TNC Nature preserves at two more has provided some protection from both development and recreation; however, illegal or unauthorized recreation and vandalism still occur at these areas and past use of motorized vehicles still heavily impacts populations within protected habitat. While ACECs and the TNC preserves do provide some protection for the species outside of the Act, the remaining populations have few to no legal protections and the ACEC protections may not be adequate to preserve the species. We consider the lack of legal protections on State and private lands to constitute a high threat to the species at this time.”

(at 37, emphasis added) We note that the prior Washington County HCP was in place at this time and because it was a single species HCP, it provided no conservation or recovery for this endangered and declining plant. The five-year review determined

that no revision to the plant's endangered status was necessary. Based on the finding in the five-year review the dwarf bear poppy has declined since being listed in 1979. The preferred alignment makes mention of potential impacts on "suitable" habitat for the endangered *Arctomecon humilis*, even though that species is not currently known from the Red Cliffs NCA. Yet, the USFWS has never designated critical habitat for the species despite having ample opportunity to do so, and knowing about continually increased threats to its habitat plus its few occurrences which have now become significantly segregated by roads and subdivisions. Both it and its pollinators are in decline."

3. A critical habitat determination should be made before any "suitable" habitat is impacted. This plant, 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.

Addressed in FEIS: Inadequately addressed

YES for *Astragalus holmgreniorum* – *The infuriating "Comment Noted" followed by "USFWS must make that designation". NO response to the other species below.*

"Gierisch mallow (*Sphaeralcea gierischii*)

The single Utah population of Gierisch mallow is located on BLM-managed lands and modeled habitat is located on SITLA lands. At the time of listing, impacts to this population included potential gypsum mining, grazing, illegal off-road vehicle activities, competition with invasive species, target shooting and trash dumping (78 FR 49149) The listing document in the Federal Register states specifically about the Utah population:

"While this is only one of 18 known populations, this is the second largest population of the plant and this population includes almost half of the total population, range-wide. This population is important to the long-term viability of the species. Given that this large population only encompasses 1.01 ha (2.5 ac) and is easily accessible, these activities may lead to enough Gierisch mallow plants being crushed to reduce the overall fitness of the population."

78 FR 49149

Impacts to this population in Utah, have effects throughout the species range. The U.S. Fish and Wildlife Service also establishment of critical habitat for the Gierisch mallow in 2013 at Starvation Point in Utah, on 802 ha (1,982 ac) of BLM-managed land and 68 ha (167 ac) of SITLA lands (78 FR 49167), which may be impacted by on-going management on BLM-managed lands and development on SITLA lands in the future.

Holmgren (Paradox) milk-vetch (*Astragalus holmgreniorum*) and Shivwits milk-vetch (*Astragalus ampullarioides*) These two milk-vetches were listed together and had critical habitat designated at the same time. Due to the concomitant federal designations, they are addressed together here. All of the populations of the Holmgren milk-vetch occur outside of the Red Cliffs NCA and Red Cliffs Desert Reserve (DEIS at Map 3.3-3a and Map 3.3-3b). One or two populations of the Shivwits milk-vetch occur inside or partially inside of the Red Cliffs NCA and the Red Cliffs Desert Reserve (DEIS at Map 3.3-4a and Map 3.3-4b). The Stucki Spring critical habitat unit for the Holmgren milk-vetch overlaps with the proposed Zone 6. Part of the Silver Reef Critical Habitat Unit for the Shivwits milk-vetch may fall within the Red Cliffs NCA and Red Cliffs Desert

Reserve, as do parts of the Harrisburg Bench and Cottonwood Critical Habitat Unit. The remaining populations of both species in Utah reside on BLM-managed lands, SITLA lands and private lands. According to U.S. Fish and Wildlife Service's most recent Five-Year Review (2007) of both Holmgren and Shivwits milk-vetches, few of the recovery criteria have been met. The Review states by Impact Factor:

“Factor A. The present or threatened destruction, modification, or curtailment of habitat or range...Permanent land protection is achieved for a minimum of four *A. holmgreniorum* and four *A. ampullarioides* recovery populations. Protection has not yet been achieved permanently for any population of either species.

Factor D. The inadequacy of existing regulatory mechanisms. ...No management agreements are under development for range-wide conservation outside of the commitments of the federal agencies under the Endangered Species Act;

Factor E. Other natural or manmade factors affecting the species' continued existence.... (T-6) Means are identified and management is initiated to control invasive nonnative species that compete with or otherwise harm (e.g., through associated fires) *A. holmgreniorum* and *A. ampullarioides* recovery populations and/or their habitats...no weed control work within either species populations is currently occurring. This criterion has not been achieved.

(T-7) In conjunction with recovery criterion P-2, the habitat base for each of the four recovery populations designated under criterion P-1 is large enough to offset the threat of loss or restriction of the species' pollinators... Actions under this criterion are ongoing, but have not been achieved and will take multiple years to complete.

(T-8) Use of pesticides or herbicides known or thought to be detrimental to either of the milk-vetches or their pollinators is prohibited in the vicinity of all recovery populations, either by local or State ordinances or through conservation agreements... No actions currently address this criterion and, therefore, it has not been achieved.

(T-9) Research shows evidence of the genetic fitness of *A. holmgreniorum* and *A. ampullarioides* populations, alleviating concerns about inbreeding or outbreeding depression... Actions under this criterion are current and it is expected that this criterion could be met in the next decade.

(T-10) Offsite conservation, e.g., seed collection and storage, is underway for all extant *A. holmgreniorum* and *A. ampullarioides* populations, averting the risk of immediate extinction from stochastic events or environmental catastrophes... This criterion is being acted upon and is expected to be met within the next 5 years.

(Review at 6-7, emphasis added)

It is unclear based on the Recovery Action Plan Implementation Progress if any of the in-progress actions have been completed.²⁷ In addition no down-listing criteria had been met, so the Five Year Review concludes:

“No change is recommended. According to the recovery priority table, both *A. ampullarioides* and *A. holmgreniorum* are categorized as species, have a high degree of threat, and have a low recovery potential.”

Siler pincushion cactus (*Pediocactus* [*Echinocactus utahia*] *sileri*)

While the most recent U.S. Fish and Wildlife Service Five Year Review (2018) for the Siler pincushion cactus notes that the establishment of the White Dome conservation area, managed by The Nature Conservancy, helps to protect the Siler Pincushion cactus (and the dwarf bear poppy), no change is recommended in the listing status or the recovery priority number which is currently classified as 8 (moderate degree of

threat/high recovery potential). The Review specifically identifies remaining threats in Utah as:

“The threat of urban development in Utah and the uncertainty of regional climate change remain.”

(Review at PDF 7)”

3. 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”.

Addressed in FEIS: Inadequately addressed – *Dismissed* – “Refer to response to H.65-77” (see above)

4. 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.

Addressed in FEIS: YES – [FEIS Response] “*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.*

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 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.”

New Issues/Questions introduced in the FEIS

1. Pg. 3-11 3rd bullet “Amendments made to the Red Cliffs RMP would not result in direct impacts to vegetation communities; however, amendments will facilitate the potential for future impacts. Future impacts are discussed under the ROW and HCP Covered Activities discussions.” *The DEIS included both the Red Cliffs RMP and the SGFO RMP, but the SGFO RMP has been removed, suggesting, but without affirmative comment in the FEIS that SGFO RMP may indeed result in direct impacts to vegetation communities that is not analyzed in the FEIS*

2. Pg. 3-11 4th bullet

DEIS states “development on private lands within the Analysis Area for the HCP is presumed to continue, although additional regulatory permitting requirements could delay some development projects where avoidance of take of desert tortoise may not be possible.”

FEIS states “One exception is a proposed HCP conservation measure to protect a viable population of Holmgren milk-vetch in the Central Valley Critical Habitat Unit 1c. The USFWS is working with the HCP Partners to ensure the species is protected in the Central Valley according to preserve criteria and special protective measures and to ensure that recovery is achievable. SITLA, Washington County, the State of Utah, other HCP Partners, and other experts have committed to working on the preserve design and success criteria and to identify sufficient acreage and land protections in one or more locations of the Central Valley that would protect Holmgren's milk-vetch in perpetuity.

This commitment is being evaluated and clarified as part of the Intra-Service Section 7 Consultation and as it relates to issuance of an ITP for the HCP and executed as part of the Implementation Agreement.”

3. Pg 3-29 3rd bullet – similar language

“For the purposes of this 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. One exception is that agency partners (i.e., SITLA, USFWS, UDNR, and the County) will commit to identify sufficient acreage supporting 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.”

This is an improvement over the Draft which stated that “It is presumed all lands that fall within the Analysis Area for the HCP could eventually be developed and therefore permanently impact vegetation communities”, but it’s still important to look at the ITP & IA when released. These documents should have been released with the FEIS.

4. Pg. 3-11 5th bullet

DEIS states “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 recreation and off-highway vehicle (OHV) travel limited to designated roads and trails and increased stipulations on mineral materials leasing. Protection benefits already provided to lands within the ACEC are not included within the beneficial impacts provided by designation of the Proposed Zone 6 Analysis Area.” FEIS states “Approximately one-third of the Proposed Zone 6 Analysis Area falls within the Red Bluff ACEC, which provides specific protections for special status dwarf bear-poppy and highly erodible saline soils. This is predominantly accomplished through passive management, including limiting recreation and OHV travel to designated roads and trails, designating ROW avoidance areas, and restricting fuelwood and mineral materials sales. Incorporation of portions of the ACEC into the Reserve will provide additional protections to vegetation communities not previously afforded to the area.

Pg 3-29 3rd bullet – similar language

“Approximately one-third of the Proposed Zone 6 Analysis Area falls within the Red Bluff ACEC, which provides specific protections for the special status dwarf bear-poppy and highly erodible saline soils. This is predominantly accomplished through passive management, including limiting recreation and OHV travel to designated roads and trails, designating ROW avoidance areas, and restricting fuelwood and mineral materials sales.”

The statement that the “incorporation of the ACEC into the Reserve will provide additional protections to the vegetation communities not previously afforded to the area” seems wrong because the ACEC protections were already afforded to this part of what is now called Zone 6 – i.e. no net benefit to the on-the-ground resources.

5. Pg. 3-25 to 26 One additional federally listed cactus - Fickeisen Plains Cactus (*Pediocactus peeblesianus fickeiseniae*)- was added bcs. it was recently found to occur near the Hurricane Cliffs on Federal lands managed by the BLM, where it was located on June 14, 2020, by Kipp Lee (Utah Native Plant Society 2020). There is only one known occurrence in Washington County, which is adjacent to, but outside, the boundaries of the Mojave Desert Tortoise Analysis Area and the Analysis Area for the HCP (UDWR 2019b). Modeled suitable habitat does overlap with the Mojave Desert Tortoise Analysis Area or Analysis Area for the HCP but is not mapped within proposed Zone 6. Critical habitat is designated in Arizona only.

This is probably not actionable, but it is interesting that listed plants are still being found on the landscape, raising concerns that without full surveys for the HCP, impact analysis and conservation cannot be fully addressed. The FEIS notes this on footnote 7 (pg 3-28) stating:

“The rate of expansion, if any, of special status plants into adjacent modeled suitable habitat is unknown. This is in part a result of the lack of protocol level surveys that have been conducted throughout the county. Unknown populations of special status plants have also been discovered as recently as June 2020 (pers. com. Lewinsohn 2020)”

6. Pg 3-30 – “However, 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. In addition, 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 development of a plant salvage plan would be established for ESA-listed plant species located within the Analysis Area for the HCP (Washington County 2020).”

Some miniscule improvement for rare plants (If an NCA route is chosen, which I oppose) Transplantation of rare plants is generally an abysmal failure (Fiedler 1991).

7. Pg 3-30-31 additions:

“Alternative 2 would protect habitat in proposed Zone 6 by fencing the eastern borders to prevent OHV access in non-designated areas; reducing or eliminating grazing; reducing the total mileage of designated access routes; and providing additional funding for post-fire habitat restoration and fire management. As previously noted, approximately one-third of the proposed Reserve Zone 6 falls within the Red Bluff ACEC. The addition of funding, personnel, and active management to the entire proposed Reserve Zone 6 would also enhance the protections previously established for the ACEC and increase benefits to special status plants. Special status plant occupied habitat also indirectly benefits from the reduction of fugitive dust and potential spread of exotic invasive weed impacts that would have been created by the eventual development of the non-Federal lands within the proposed Reserve Zone 6 boundary. These actions would protect and enhance special status plants and potentially reduce the spread of exotic invasive species.

Although proposed Zone 6 would mostly provide protections to special status plants, the initial installation of approximately 19 miles of fencing along the eastern border of proposed Zone 6 has potential to impact occupied or suitable habitat. To reduce the potential for impacts to special status plants, measures will be incorporated into the project (refer to Appendix D). Measures are delineated by special status plant habitat and include, but are not limited to, the following:

- Potential Habitat
- Pre-project habitat assessments would be completed across 100 percent of the project disturbance area within potential special status plant habitat prior to any ground-disturbing activities, to determine if suitable habitat is present.
- Suitable Habitat
- Surveys would be conducted by a qualified biologist to determine occupancy. Surveys would be for all areas proposed for surface disturbance prior to initiation of project activities and within the same growing season, at a time when the plant can be detected (usually the flowering period). Surveys would occur within 300 feet from the edge of the project disturbance requiring removal of vegetation.

The project infrastructure would be designed to minimize impacts within suitable habitat, including limiting new access routes created by the project, sharing ROWs where possible, and placing signing to limit off-road travel in sensitive areas.

- Occupied Habitat Project infrastructure would be designed to avoid direct disturbance and minimize indirect impacts to populations and to individual plants.
- Buffers of minimum 300 feet would be maintained between the edge of disturbance and plants, populations, occupied habitat, and avoidance areas.
- Construction activities would not occur during the flowering period within occupied habitat.
- A qualified botanist would be onsite during any ground-disturbing activity to monitor surface disturbance activities and assist with implementation of applicable conservation measures.
- Dust abatement measures would be applied to disturbed areas during the active growing period (typically April 1 through July 31) and throughout the lifetime of the project (i.e., initial construction through reclamation). Dust abatement would use only water (i.e., no chemicals, brine, or produced water).”

A small improvement in the FEIS, but the measures are typical avoidance, minimization measures that should be implemented anyway. Good to see them written down, but ultimately impacts will occur in a “death by 1000 cuts.”

3.5 Special Status Wildlife

Mojave Desert Tortoise

1. The DEIS utilizes and relies on inadequate, incomplete, and unsubstantiated data.

Sub-issue 1: The survey and density data are inadequate for comparing gains and losses to the MDT in the proposal

We noted that the survey methods used in Zone 6 were not intended to estimate population density and are inadequate. The DEIS stated 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.” DEIS at 3-49.

Addressed in FEIS: NO. *This information was removed from the FEIS without explanation and replaced only with “Future surveys may be done to refine the abundance estimate for proposed Zone 6” (FEIS at 3-63).*

Sub-issue 2: Absence of project specific survey.

We noted that 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.

Addressed in FEIS: NO. *BLM states that “the estimated number of Mojave desert tortoises to be relocated from the ROW (refer to Table 3.5-12) is based upon UDWR (2018) estimates of abundance of Mojave desert tortoise in Zone 3 for 2007-2017, using a kernel density abundance (refer to Table 3.5-4 and Map 3.5-1). Because desert tortoises move around, the exact number of desert tortoises that need to be moved out of the ROW may be more or less under each of the three proposed new alignments through the Reserve” (FEIS at 3-78). We are aware that tortoises move around, but still ask why the 2018 pre-project survey results for the UDOT application alignment were not included in the DEIS or FEIS?*

Sub-issue 3: BLM used a figure in DEIS of 3000 MDT that was necessary for a stable MDT population. We said the 3,000 figure was unsupported.

Addressed in FEIS: INADEQUATELY ADDRESSED. *BLM deleted the figure after we said it was unsupported but did not replace it. 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 FEIS absent evidence to the otherwise, should use the 5,000 figure.

Sub-issue 4: The DEIS states that 6,760 acres in Zone 6 are occupied tortoise habitat but surveys were not done on all of these acres.

Addressed in FEIS: INADEQUATELY ADDRESSED. *BLM states that the MDT abundance calculations only apply to surveyed lands in Zone 6 and not to un-surveyed lands. “Un-surveyed areas are not included in tortoise abundance calculations for proposed Reserve Zone 6. The estimated population numbers provided for proposed Reserve Zone 6 do not include un-surveyed areas so can only be considered an estimate of the total number of tortoises within Zone 6” (FEIS at 3-62). This response is difficult to interpret, but we take it to mean that BLM is using data from surveyed areas only to estimate total populations in Zone 6 more broadly, which was the essence of the complaint. “Surveyed lands include 3000 acres of SITLA lands plus 2150 acres BLM lands. 3872 acres of surveyed lands are included in Zone 6.” FEIS 3-62. BLM states that the un-surveyed lands are largely part of the ACEC, and because they manage the ACEC more carefully they presume it has MDT. However, Map 3.2-4 shows that the un-surveyed portion of zone 6 has higher presence of exotic species which might lead to lower numbers now and does lead to higher wildfire threat later. The BLM puts forth MDT numbers for Zone 6 based on surveys that did not cover the entire zone.*

Sub-issue 5: The DEIS states that the Reserve 3 populations are stable absent evidence.

Addressed in FEIS: INADEQUATELY ADDRESSED. *BLM said that “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 stable is not meant to imply that the population is trending toward recovery.”*

The BLM’s explanation does not address the fact that population growth rates are negative in the Analytical Units and in the UVRRU. BLM says we should not confuse stability with recovery but declining populations by definition are not stable.

Also, regarding drought affecting 2019 survey results (depressed numbers), BLM says we should not take this as a sign the population is necessarily declining. However, elsewhere in the FEIS, BLM explains that drought, even short-term, can have real consequences to the population:

“Extended periods of drought can increase immunosuppression in tortoises (Boarman 2002), cause stress and other physiological responses, and limit forage availability. Short-term droughts can result in reduced reproductive potential, and long-term droughts could have significant consequences on Mojave desert tortoise populations (USFWS 2019a).

Drought conditions reduce water availability, promote nonnative annual grasses, and decrease native forb growth, which could diminish the ability of Mojave desert tortoise to satisfy its nutritional needs. Within the Reserve, a severe drought in 2002 resulted in no perennial or annual plant growth that year. Abnormal tortoise behavior was observed, including failure to hibernate, and there was an increase in URTD and the presence of emaciated tortoises (UDWR 2018). The following year, surveys identified 2.7 times the normal amount of shell remains, presumably a result of increased mortality from the drought. In 2003 the estimated population had dropped to 16.5 individuals per square kilometer from the 28.3 individuals per square kilometer recorded in 2001 (UDWR 2018).” FEIS 3-55.

2. The DEIS does not provide necessary documents for decision making.

We stated that the E-planning site did not provide (but the DEIS did reference or cite repetitively) the Draft Biological Report (USFWS 2020); the resource equivalency analysis; the spatial decision support model; and the USFWS 2019 workshop. These documents are all critical to understanding NCH impacts to the threatened Mojave desert tortoise, and they were not provided to the public.

Addressed in FEIS: INADEQUATELY ADDRESSED. *BLM said that “the USFWS considered 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; however, the USFWS decided to rely on existing models for the analysis” (FEIS at 3-73). No rationale was provided for why the FWS decided not to rely on a spatial decision support model for the analysis.*

Additionally, the document fails to explain why the Resource Equivalency Analysis suddenly disappeared, though it was mentioned in the DEIS at 3-57: “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.”

In FEIS Appendix O at 0-54, BLM finally does respond: “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.”

BLM’s explanation for discarding the FWS Resource Equivalency Analysis because its underlying assumptions are subjective and uncertain is arbitrary and capricious. FWS is tasked with the mission to “to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people.” Certainly, FWS analysis of the impacts of a high speed, 4-lane highway to what “may be the most important high-density cluster of desert tortoises in the recovery unit (USFWS 2020a)” (FEIS at 3-80) might show that this loss could not be equalized by the addition of fragmented, dis-contiguous, poor-quality habitat in Zone 6.

3. The DEIS’ application of the USGS (2009) model does not acknowledge and address shortcomings

We asserted that BLM did not acknowledge and address shortcomings in the Nussear MDT potential habitat model. The model does not account for condition of the land as a result of anthropogenic activities (e.g., disturbances). The model provides an output of the statistical probability of MDT habitat potential that can be used to map potential areas of MDT habitat; it does not reflect suitable habitat. BLM uses the model as a surrogate for suitable habitat.

Addressed in FEIS: INADEQUATELY ADDRESSED. *BLM responded saying that they made refinements to the Nussear model to try to address its shortcomings. They filtered out hardscape and developed areas. They filtered out isolated 1 km or smaller patches. They also note that over 8,000 documented observations of Mojave desert tortoise and sign were used to confirm the modeled U.S. Geological Survey habitat.*

It is true that the BLM filtered areas out of the model’s results but the filters still do not account for anthropogenic effects like diminished habitat quality from grazing, roads, OHVs, etc. and do not take into account connectivity requirements. The Defenders of Wildlife model does take into account connectivity (This model was submitted in the scoping letter submitted by the Red Cliffs Conservation Coalition at page 61 and in Appendix F). Defenders in its paper also suggested a way to model the human footprint; the BLM could have tried to apply a similar model to take into account, at least to some degree, the condition of the land. BLM could have tried to impose land condition data on the results (like rangeland health evaluations and OHV route density) as well.

4. The DEIS relies on Nussear et al. 2009 even though more sophisticated modeling tools exist.

We said that the BLM should use Defenders model which is built off Nussear’s model but is more sophisticated because it takes into account connectivity of habitat. BLM stated that Nussear’s model was peer reviewed and Defenders’ model was not.

Addressed in FEIS: INADEQUATELY ADDRESSED. *Even though Defenders model is not peer reviewed it provides a more sophisticated approach that could have been replicated by the BLM. Also, BLM does not address that they*

did not use the connectivity model by Gray that was peer reviewed (and incorporated into Defenders' model).

5. The DEIS fails to take a hard look at the habitat condition in Zone 6.

Sub-issue 1: The DEIS is missing fundamental information about the condition of the land and habitat in Zone 6.

We stated that The FEIS did not take a hard look at the habitat condition of Zone 6 related to range health, recreation, past mineral activity, etc..

Addressed in FEIS: INADEQUATELY ADDRESSED. *The FEIS does not address rangeland health and the condition of the allotments in zone 6. Section 3.7 does not describe past impacts of mineral development (hard rock, mineral materials, saleable, leasable). The BLM does address recreation impacts and commits to a recreation area management plan within 5 years of the HCP approval or before construction of the NCH (whichever comes first). This includes a travel management plan. See FEIS at 2-28.*

Sub-issue 2. The DEIS does not disclose why Zone 6 is the best option in the UVRU for additional protection

Addressed in FEIS: INADEQUATELY ADDRESSED. *The FEIS states that "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" (Appendix O at 0-145). However, the FEIS fails to show that any other areas aside from Zone 6 were evaluated, how they were ranked, or what criteria were used. BLM states that Zone 6 could provide connection to the Northeast Mojave Recovery Unit, but fails to address how the future Western Corridor would fragment this connectivity.*

Additionally, BLM failed to explain why other areas with occupied and potential habitat were not evaluated. 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.

6. The DEIS fails to take a hard look at the impacts to MDT critical habitat

Sub-issue 1: The DEIS fails to disclose and accurately analyze the full amount of adverse modification of critical habitat for the threatened MDT

We asserted that the BLM did not account for habitat where quality would be diminished but not completely lost because of the NCH. Specifically, the BLM did not account for the full road effect zone in its assessment of damage to MDT critical habitat. The BLM used a road effect zone width of 508 m (without substantiation). Hoff and Marlow (2002) found that the road effect zone could be as wide as 4.6 km.

Addressed in FEIS: INADEQUATELY ADDRESSED. *The response to comments and the FEIS implies that fenced roads have less road effect than unfenced roads and refer to the Von Seckendorff Hoff and Marlow study as evidence of that:*

“How much of an impact an unfenced 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 Seckendorff Hoff and Marlow 2002).” FEIS 3-46.

This is a misstatement of Hoff and Marlow (2002). In their paper, they say that:

“Although there is abundant reason to believe that the installation of fences and other barriers along roadways will do much to reduce direct tortoise mortalities, the effects of fragmentation caused by those roads and fences on the desert tortoise population as a whole has yet to be addressed.” Page 455.

Further, the coalition cannot find anywhere in Hoff and Marlow where the authors say that they were looking at unfenced roads.

Whether fenced or unfenced, the impacts of roads (fire, noise, vibration) still exist, we don't see why the BLM would limit the extent of the road effect zone to 508 m.

More generally, the BLM seems to rely heavily on the fact that underpasses and other structures allowing MDT passage across roads will mitigate or eliminate the barrier effect of the road. However, the BLM does not provide scientific studies to substantiate this claim. In fact, the sources BLM does reference during its discussion of culverts suggest that they are inadequate at mitigating fragmentation and more research is necessary:

“Ongoing studies by the USFWS and the BLM in Nevada along highway US 93 and US 95 find that at least one adult tortoise has crossed back and forth using under-roadway culverts (pers. com. Deffner 2020). However, more research is needed to determine whether tortoises are motivated to use culverts in all environmental and density conditions to access or expand their home ranges, and if passage would support desert tortoise population recovery or demographic needs (USFWS 2020a)” (FEIS at 3-47).

“The size, structure, design, and location of each structure would influence its effectiveness in facilitating passage of tortoises. It has been suggested that bridges and viaducts may be more effective at maintaining desert tortoise habitat and population connectivity as compared to culverts because wash habitats have higher potential for use by tortoises (USFWS 2014b, Lesbarrères and Fahrig 2012)” (FEIS at 3-79).

Finally, the FWS Draft Biological Report reinforces the idea that culverts are minimally-effective at reducing fragmentation impacts and maintaining demographic needs and genetic connectivity:

“Studies have not been conducted to determine whether culverts are sufficient to support demographic needs for desert tortoises. Supporting demographic population recovery (i.e. rescue effects) in an area depleted of desert tortoises requires successful recruitment. Population recovery is most likely to occur when adult females can access and establish nests in a new area or juveniles establish home ranges in the new area (Doak et al. 1994, Palmer et al. 1998). Female desert tortoise home ranges may be less than half the size of male home ranges (USFWS 2011) and preliminary data suggest juveniles may only use culverts for passage 10 percent of the time. Given high uncertainties, instead of estimating the number of adult females and juveniles that would need to cross, we estimated the effectiveness of improving permeability. Assuming culverts are spaced to local female home range distance and prioritized in washes (which desert tortoises may use as movement corridors), we estimate maximum demographic effectiveness from culverts of 5 to 15 percent (McLuckie 2005, Dutcher et al. 2019, Averill-Murray 2020, Holcomb 2020, McLuckie 2020a). Attributing higher effectiveness from culverts alone is too risky given the high uncertainty and importance of the areas where connectivity needs to be improved to support the viability of the UVR recovery unit” (id. at 57).

Sub-issue 2: The agencies have a duty to take a hard look at the consequences of their proposed actions under NEPA. In calculating the impact of various NCH alignments on MDT habitat, including designated critical habitat, the DEIS inappropriately uses a road impact zone based 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. DEIS at 3- 35.

We asserted that the BLM did not evaluate the cumulative impact to MDT critical habitat making it impossible for the agencies to determine the significance of the proposed actions on critical habitat.

Addressed in FEIS: INADEQUATELY ADDRESSED: *The BLM in response to comments states that the loss of critical habitat because of the NCH is very small (0.7% of the critical habitat in Reserve). BLM also points to Table 3.5-12 which compares direct loss of critical habitat under each of the NCH alignments. Table 3.5-12 looks at loss of critical habitat but does not account for adverse modification. The NCH will not only directly destroy the lands in the ROW, but*

will cut off the lands to the south from the bulk of the UVRU and Reserve (underpasses notwithstanding). It also will adversely modify critical habitat on the north side of the NCH within the road effect zone. None of this is discussed in the FEIS.

Further, while the percentage of critical habitat overall impacted by the NCH seems low (1%), the loss or adverse modification of critical habitat within the UVRU may be significant given that the NCH will cut through key MDT habitat and further disable the UVRU which is critical to the species range wide. Hence, the NCH may result in adverse modification of critical habitat as a whole.

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. 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. See Red Cliffs Conservation Coalition DEIS Comments at 98.

More generally, the larger picture related to connectivity between analytical units and recovery units has not been adequately disclosed or addressed. The cumulative effect of more highways and developments and the increasing isolation of MDT habitat patches is adversely impacting the MDT's ability to genetically migrate across Analytic Units and Recovery Units.

Sub-issue 3: The DEIS does not evaluate the cumulative impact to MDT critical habitat making it impossible for the agencies to determine the significance of the proposed actions on critical habitat

Addressed in FEIS: INADEQUATELY ADDRESSED: *For discussion, see below "Issue 9: The cumulative effects analysis is deficient in violation of NEPA" and its 3 sub-issues: 1- The DEIS inappropriately relies on current conditions to express effects of past and present actions; 2-The DEIS fails to provide adequately detailed or quantified information in the cumulative effects analysis; and 3-The DEIS leaves important projects out of the list of reasonably foreseeable projects. Note that BLM entirely failed to acknowledge impacts to desert tortoise critical habitat in its cumulative effects analysis.*

Sub-issue 4: The DEIS fails to take a hard look at how each alternative will or will not achieve the requirements of other environmental laws and policies.

We stated that the DEIS failed to evaluate how the alternatives comply or do not comply with relevant guiding statutes. These include Public Law 111-11 and the Endangered Species Act.

Addressed in FEIS: INADEQUATELY ADDRESSED. *In the FEIS, BLM failed to show how granting a right-of-way for the NCH would conserve, protect and enhance the Congressionally-established purposes of the Red Cliffs NCA. BLM claimed that UDOT's additional design measures for the highway would*

minimize impacts to the NCA's resource values, but these measures are insufficient. See further discussion elsewhere in these comments. BLM also failed to show how granting the right-of-way would be in accordance with the ESA, instead punting that difficult task to the FWS with its preparation of the forthcoming Biological Opinion.

7. The DEIS fails to take a hard look at specific issues related to both Zone 6 and Zone 3.

Among other concerns, we stated that the BLM does not take the required hard look at the effectiveness of crossing structures and therefore is underestimating the loss and diminishment of habitat from the NCH and from fenced roads in Zone 6.

Addressed in FEIS: INADEQUATELY ADDRESSED: *The issue of road effect is not adequately discussed or explored in the FEIS. The BLM is being arbitrarily generous in its assessment that MDT crossing structures will mitigate or eliminate many of the effects of the road. If structures are not effective, or only partially effective, MDT in lower elevation lands south of highway will be prevented from accessing higher elevation potential habitat. In the Draft Biological Report, FWS admits that more research is needed to identify crossing structure designs that provide enough permeability to achieve effective genetic connectivity:*

“Studies have not been conducted to determine whether culverts are sufficient to support demographic needs for desert tortoises. Supporting demographic population recovery (i.e. rescue effects) in an area depleted of desert tortoises requires successful recruitment. Population recovery is most likely to occur when adult females can access and establish nests in a new area or juveniles establish home ranges in the new area (Doak et al. 1994, Palmer et al. 1998). Female desert tortoise home ranges may be less than half the size of male home ranges (USFWS 2011) and preliminary data suggest juveniles may only use culverts for passage 10 percent of the time. Given high uncertainties, instead of estimating the number of adult females and juveniles that would need to cross, we estimated the effectiveness of improving permeability. Assuming culverts are spaced to local female home range distance and prioritized in washes (which desert tortoises may use as movement corridors), we estimate maximum demographic effectiveness from culverts of 5 to 15 percent (McLuckie 2005, Dutcher et al. 2019, Averill-Murray 2020, Holcomb 2020, McLuckie 2020a). Attributing higher effectiveness from culverts alone is too risky given the high uncertainty and importance of the areas where connectivity needs to be improved to support the viability of the UVR recovery unit.”

BLM must not assume that culverts will successfully mitigate habitat fragmentation when the best available science does not demonstrate that it will, and when in fact, the verdict is still out.

8. The BLM must address changed circumstances triggered by recent fires.

Addressed in FEIS: INADEQUATELY ADDRESSED. *BLM stated that fires are anticipated, fire history was documented in the DEIS, and that the 2020 wildfires do not constitute significant new circumstances. However, in terms of the baseline condition of the lands in Zone 3 where the NCH would travel, the fires drastically reduced the amount of critical habitat and resulted in*

documented tortoise mortality. See BLM's Cottonwood Trail Fire Tortoise Mortality Report. It is true that fires are anticipated, but in this case, the fires impacted the same region that is under threat from the NCH, and the baseline conditions have changed. See further discussion elsewhere in these comments.

9. The cumulative effects analysis is deficient in violation of NEPA.

Sub-issue 1: The DEIS inappropriately relies on current conditions to express effects of past and present actions.

We stated that BLM erred by relying on the current condition to express effects of past and present actions. 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.

Addressed in FEIS: INADEQUATELY ADDRESSED. *In the FEIS Appendix O at 0-73, BLM states that "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."*

However, BLM failed to document the ongoing impact of existing roads and developments to tortoises and habitat in the Red Cliffs NCA and the larger analysis area. BLM failed because the agency used an inappropriately small road impact zone of 508-meters to consider the indirect impacts of roads, and because the agency did not include adequate analysis of the impacts of edge effect. For example, in the FEIS at 3-44-45, BLM acknowledges that edge effect occurs, but fails to specifically discuss its ongoing adverse impacts in the Red Cliffs NCA and larger analysis area: "with habitat fragmentation there is an increase in the amount of habitat edge (Laurance and Yensen 1991). Edge effects are the physical and biological modifications connected with the artificial boundaries of fragments and differ from the habitat found in the interior of the patch (Laurance et al. 2007). Plant and animal populations in fragmented habitats are not only separated, they are subjected to ecological changes associated with edges. The distance that edge effects penetrate into fragments varies among species (Hellmund and Smith 2006). Edge effects can drive change in fragmented landscapes. Small, isolated, or irregular patches of fragmented habitat may be especially vulnerable to edge effects (Laurance and Yensen 1991)."

Sub-issue 2: The DEIS fails to provide adequately detailed or quantified information in the cumulative effects analysis.

We stated that the cumulative effects analysis for the MDT in the DEIS was less than one page long. The section provided only general statements about trends and failed to provide any detailed information related to the spatial and temporal nature of the effects. Nor did it provide any quantification of the effects or contextualize the incremental effect of the proposed actions.

Addressed in FEIS: INADEQUATELY ADDRESSED. *BLM adds a couple paragraphs to the FEIS analysis of cumulative impacts at 3-230 including information previously missing on the Lake Powell Pipeline and Western Corridor: “Most of the projects described in Table 3.28-2 require ground-disturbing activities on previously undeveloped land. These projects may adversely impact special status wildlife, most notably the Mojave desert tortoise, and lead to habitat degradation and loss. Transportation, utility, and development projects listed in Table 3.28-2 would contribute to fragmentation of special status wildlife habitat, and possibly injury or mortality of individuals. The Western Corridor, planned for the 2014-2050 period, is proposed west of proposed Reserve Zone 6. If funded and constructed, the Western Corridor would contribute to further fragmentation of Mojave desert tortoise habitat, although the roadway would be subject to ESA Section 7 consultation and would likely be constructed with passageways for tortoise. The Lake Powell Pipeline, which if constructed would be outside of the Reserve but within the HCP Analysis Area, would disturb approximately 575 acres of tortoise habitat (Bureau of Reclamation 2020) but would also be subject to ESA Section 7 consultation and appropriate conservation measures. The DiVario Development broke ground in 2019 and is planned as a 730-acre residential development abutting the northeast section of proposed Zone 6. This will increase the effects of the wildland urban interface and will increase opportunities for human-related impacts on the tortoise habitat. The development also promotes and supports existing mountain bike competitions, which may further degrade habitat and could cause injuries or death to tortoise. Fencing along the eastern border of proposed Zone 6 would create a barrier from the development and help minimize some of the potential human-related impacts.”*

However, the cumulative impact analysis still does not give us a sense of the overall impact to the UVVRU. This is a critical omission, as the NCH will adversely impact what may be the most important high-density cluster of MDT in the UVRRU (FEIS at 3-80), compromising the entire recovery unit. Thus, cumulative impacts analysis of the NCH in addition to all past, present and reasonably foreseeable projects, is critical for understanding whether the UVRRU will continue to function as a recovery unit if the NCH is built.

Sub-issue 3: The DEIS leaves important projects out of the list of reasonably foreseeable projects.

Addressed in FEIS: INADEQUATELY ADDRESSED. *BLM adds a small handful of projects to the list of reasonably foreseeable future projects, including the Western Corridor, but fails to analyze how these projects will impact the Red Cliffs NCA or the proposed Zone 6. Additionally, BLM refuses to analyze the Babylon Road, the extension of Navajo Dr. and the extension of Green Springs Dr., all major roads that would impact designated critical habitat in the Red Cliffs NCA or potential habitat in Zone 6.*

10. The DEIS without evidence asserts that proposed management changes in Zone 6 will mitigate habitat degradation.

We stated that about half of the lands in Zone 6 are administered by SITLA. Activities allowed on SITLA lands until acquisition occurs (if it does) by the BLM will continue to

cause adverse effects to the MDT. The transfer of state and private lands to federal ownership is a very slow and arduous process (based on the history of land acquisitions in Red Cliffs). We also stated that BLM failed to demonstrate how adverse impacts to the SITLA lands from the following activities/uses could be mitigated: OHVs, roads, and rights-of-ways for roads; Utilities, Renewable Energy Resources, Grazing, Mining, Drilling for Resources, Water Development, and Flood Control; and Recreation.

Addressed in FEIS: INADEQUATELY ADDRESSED. *BLM responded in the FEIS Appendix O at O-721 that “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.”*

This response does not demonstrate that the proposed Zone 6 would be managed in a way that truly elevates the protection of Mojave desert tortoise habitat by removing or reducing specific threats. BLM failed to demonstrate whether it has sufficiently budgeted for the responsibilities of Zone 6. Similarly, the County has not budgeted enough. Consider the following examples:

- *Fencing the eastern border of Zone 6 to prevent OHV access is beneficial to the MDT. However, OHV routes in Zone 6 will be reduced but not eliminated. OHV travel is not permitted in Zone 3 of Red Cliffs NCA because it causes adverse impacts to desert tortoise and their habitats.*
- *The FEIS 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.*
- *BLM fails to provide details on the number of law enforcement officers that would be assigned to Zone 6. Currently, there is one law enforcement officer to handle the entire 629,000-acre BLM SGFO. This is clearly insufficient, and multiple officers would need to be assigned to Zone 6 to prevent the illegal dumping, target shooting, OHV use, dispersed camping and off trail mountain bike use that regularly occurs there.*
- *The FEIS 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. Note that the Draft HCP only says 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.” Draft HCP at 132.*

- *The funding described in the Draft HCP 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.*
- *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.”*

11. The DEIS assumes that recovery and restoration actions in zone 6 will improve habitat in the short and long term without evidence.

We stated that the DEIS failed 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.

[Sub-issue 1: The DEIS inaccurately presents the mitigation value of Zone 6

We stated that the DEIS inappropriately applied 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.

Addressed in FEIS: INADEQUATELY ADDRESSED. *See further discussion above at Issue 1: “The DEIS utilizes and relies on inadequate, incomplete, and unsubstantiated data” and Issue 3: “The DEIS’ application of the USGS (2009) model does not acknowledge and address shortcomings.”*

Sub-issue 2: The DEIS fails to show how Zone 6 in the Green Valley Analytic Unit can increase habitat connectivity for MDT

Addressed in FEIS: INADEQUATELY ADDRESSED. *See further discussion at Issue 5, Sub-issue 2- The DEIS does not disclose why Zone 6 is the best option in the UVRU for additional protection and Issue 16- The NCH violates the Endangered Species Act (ESA).*

Sub-issue 3: The DEIS fails to demonstrate that Zone 6 because of its small size and predicted isolation is able to support a viable population in the long term

We stated that the DEIS failed to 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.

Addressed in FEIS: INADEQUATELY ADDRESSED. *BLM responded in the FEIS Appendix O at 0-680 that “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.”*

However, BLM failed to resolve comments questioning whether the population of tortoises in Zone 6 may have been artificially augmented with tortoises removed from development in western St. George and placed in Zone 6. BLM also failed to examine the adverse impacts of the Western Corridor and the extensions of Navajo Dr. and Green Valley Dr. to the proposed habitat connectivity the agency is counting on increasing between the UVRU and the NEMRU by protecting Zone 6.

We know for certain that the small size and relative isolation of Zone 6 coupled with a MDT population below 3,000—the FEIS at 3-62 now states that there is an estimated abundance of 353 tortoises in surveyed areas of proposed Reserve Zone 6—are distinct impediments to a viable population in the long term. Note that the 3,000-figure cited in the DEIS as a minimum necessary population per analytic unit was removed without explanation from the FEIS.

Sub-issue 4: As the SGFO Amendment (Alt B or C) is proposed, management would not be consistent with the conservation goals of Zone 3

We stated that the DEIS provided 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.

Addressed in FEIS: INADEQUATELY ADDRESSED. *See further discussion above in Issue 10- The DEIS without evidence asserts that proposed management changes in Zone 6 will mitigate habitat degradation.*

12. The DEIS does not analyze or disclose why Zone 6 is located or drawn the way it is.

Addressed in FEIS: INADEQUATELY ADDRESSED. *BLM does not take a hard look at alternative configurations of Zone 6. Zone 6 configuration is based on the county's application.*

While the proposed action includes the county's configuration for Zone 6, the BLM has a responsibility in amending its RMP to consider a range of alternatives and to take a hard look at the impacts resulting from various alternatives on the MDT. BLM failed to do this. See discussion elsewhere in this document.

13. The DEIS must explore additional options for Zone 6 in the SGFO amendment to provide a range of reasonable alternatives for Zone 6.

All the action alternatives for the SGFO RMP amendment use the same configuration for Zone 6. We questioned why this configuration was chosen and why they are not exploring alternative configurations that might be better for the MDT overall. The BLM said that Zone 6 is part of HCP application and therefore was decided by the county. But BLM in a NEPA doc can consider other options for Zone 6.

Addressed in FEIS: INADEQUATELY ADDRESSED. *While the proposed action includes the county's configuration for Zone 6, the BLM has a responsibility in amending its RMP to consider a range of alternatives and to take a hard look at the impacts resulting from various alternatives on the MDT. The BLM failed to do this.*

14. The NCH violates the Federal Lands Policy and Management Act (FLPMA).

Addressed in FEIS: INADEQUATELY ADDRESSED. *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 UVRRU, 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 UVRRU and thus to the MDT range-wide, the NCH will clearly result in undue and unnecessary degradation on our public lands.*

15. The NCH violates Public Law 111–11 because it will not meet the requirements specified for management of the NCA in the Act

Addressed in FEIS: INADEQUATELY ADDRESSED. *In the FEIS, BLM failed to show how the NCH would conserve, protect or enhance the Congressionally-established purposes of the Red Cliffs NCA, including its purposes, values and objects. BLM mistakenly claims that UDOT's additional design measures will remedy the Agency's failure to uphold its responsibility to conserve, protect and enhance the NCA's resources under 16 U.S.C. § 460www; P.L.111- 11, Title I, Subtitle O, § 1974(a):*

“Since the publication of the Draft EIS, the BLM has been working with UDOT, USFWS, and other partners to identify additional measures that would conserve, protect, and enhance the objects and values of the NCA and reduce the potential impacts of BLM issuing a ROW to UDOT for the construction of the Northern Corridor. As a result of those conversations, UDOT has submitted a revised POD containing additional design features of the proposed action for environmental protection. In addition, BLM in collaboration with USFWS and other partners has identified additional mitigation measures that would be applicable to the potential issuance of a ROW across the Red Cliffs NCA for the Northern Corridor (refer to

Section 2.2.9 of the EIS). These additional design features and mitigation measures include:

- *Habitat restoration in coordination with the BLM, USFWS, Utah’s WRI, and other stakeholders.*
- *A suite of Mojave desert tortoise-specific measures as described in Section 2.2.9.1 and Appendix D.*
- *Long-term UDOT monitoring of existing Mojave desert tortoise passages under SR 18 as well as the consideration of passage improvements, to increase connectivity for Mojave desert tortoise, in conjunction with future road construction projects.*
- *Under-road passages for the existing trails that would cross the proposed corridor to maintain existing recreational access within the NCA.*
- *Interpretive displays installed along the proposed hike and bike path to further promote recreation and public education related to the objects and values of the NCA. (FEIS at 3-178-179).”*

The “additional measures” proposed by UDOT fail to protect the Red Cliffs NCA’s objects and values from adverse impacts and are problematic for multiple reasons. See further discussion elsewhere in these comments.

16. The NCH violates the Endangered Species Act (ESA).

We stated that 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. The USFWS in the recovery plan for the MDT established five recovery units. All are deemed necessary for the MDT’s survival. USFWS 2011 at 41 and USFWS 2020 at 14 (“We consider these five recovery units necessary to conserve the genetic, behavioral, morphological, and ecological diversity necessary for long-term sustainability of the entire listed species (Avisé 2004, Mace and Purvis 2008, USFWS 2011)”). The UVRU is the smallest³² and most fragmented of the five Recovery Units established for the MDT range wide and is home to an estimated 4,450 MDT. DEIS at 3-47. Since the designation of critical habitat in 1994, 22% (12,002 acres) of the initial habitat designated as critical (54,600 acres) within the UVRU is no longer suitable. USFWS 2020 at 14. Further MDT in the UVRU have declined by 24.3% between 2004 and 2014 and “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).” DEIS at 3-47 to 3-48. MDT within the UVRU are currently estimated to be declining at an annual rate of 3.2% or greater.³³ USFWS 2020 at 32. As a result of the 2020 fires that occurred

³² The small size of the UVRU has compromised the potential viability of the MDT population. DEIS at 3-48 (“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. Tortoise abundance in each of the analytical units is lower than the 3,000 animals recommended by USFWS (USFWS 2020a).”)

³³ Note that “if population growth rates (lambdas, proportional change in abundance from one year to the next) are below 0.975 on average, no population size is large enough for persistence to 390 to 500 years (15 to 20 desert tortoise generations; USFWS 1994).” USFWS 2020 at 31.

within and near the southern portion of the Red Cliffs NCA, both of these figures may overestimate the condition of the critical habitat and population.

The UVRRU 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 sub-populations.” 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 UVRRU. 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 95³⁴, DEIS at 3-35 and 3-48, and USFWS 1994.³⁵

Addressed in FEIS: INADEQUATELY ADDRESSED. *BLM says that Zone 6 will enhance connectivity to the Green Valley AU and other units and is likely important for sustaining landscape level conservation of the MDT (e.g., to NE Mojave Recovery Unit). This is all speculation on the part of the BLM as we do not know if Zone 6 is adequate to help bolster landscape connectivity. What we do know is that the affected area of the NCA/Reserve has relatively denser populations of MDT that are essential to the continued health of the UVRRU.*

In addition, as described above, the BLM is putting lots of faith into the efficacy of crossing structures to reduce the damage to the MDT and its critical habitat. This faith is misplaced and unsubstantiated with any science showing the efficacy of these structures.

The BLM says that the project will not jeopardize the continued existence of the MDT (<1% of all MDT in existence). It will involve the non-lethal take of 368 tortoises and impacts up to 2,333 acres of habitat range wide. However, as described above, the NCH will destroy some of the most important habitat in the UVRRU. The UVRRU, if degraded to the point where it cannot support in the long-term MDT, will affect the continued survival of the species (by definition, since each recovery unit is deemed essential). We also note that the BLM is significantly underestimating the loss and adverse effect to critical habitat from the NCH project. See our comments elsewhere on this.

³⁴ USFWS 2020 shows that the East and West Cottonwood AUs have an estimated MDT population of 1,749. USFWS 2020 at 95 states “The Red Cliffs Desert Reserve is estimated to support 2,401 adult desert tortoises and 54 percent of the recovery unit population (Table 4). West and East Cottonwood AUs support 73 percent of the Red Cliffs Desert Reserve population (1,749) and these core AUs support 42 percent of the UVR recovery unit’s conservation value (Table 15 and Table 16).”

³⁵ See, *supra*. The 1994 Desert Tortoise 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. This figure only takes into account genetic considerations and does not account for other demographic factors that impact viability. *Id.*

- 17. It is clear from the discussions in the previous subsections that the MDT is in considerable trouble and that the UVRU is teetering on the edge. Given the precarious condition of both, the agencies should not only reject alternatives that involve the NCH but should also protect as much high-quality habitat within the UVRU as possible.**

We stated that the agencies should protect and restore additional high quality in the UVRU that would enhance the distribution, abundance, and density of MDT in addition to not building the Northern Corridor Highway for the MDT.

Addressed in FEIS: NO.

- 18. As discussed above, the rationale for choosing Zone 6 is not well articulated in the DEIS. Zone 6 is isolated from the Reserve and will become increasingly affected by urbanization and roads in the future. It is also intensively used and thus may not offer suitable habitat. The DEIS must not only provide a logical rationale for identifying Zone 6 as currently mapped but also explain why Zone 6 presents better opportunities for MDT conservation and recovery than other areas (including a vastly increased Zone 6).**

Addressed in FEIS: INADEQUATELY ADDRESSED. See discussion elsewhere in this document.

- 19. Based on a more detailed and comprehensive review of land conservation opportunities within the UVRU in the DEIS, the agencies should identify a suite of lands that will maximize additional conservation and recovery for the MDT.**

Addressed in FEIS: No.

Federally Threatened Mexican Spotted Owl and other birds

20. [Our Comment] Issue 20: 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. We stated that BLM should complete a thorough analysis of the natural soundscapes within and around the planning area. In order to adequately monitor, mitigate and/or minimize the impact of unnatural, disturbing, and damaging noises from both activities within and outside the NCA, BLM must obtain this baseline information.

Addressed in FEIS: INADEQUATELY ADDRESSED. *The FEIS Appendix O at 0-684 states that “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.” BLM failed to analyze the indirect impacts of the proposed NCH on Mexican spotted owl nesting habitat. Regardless of where the habitat is located (federal vs. non-federal land) the highway would indirectly impact owl habitat within 0.2 miles of the highway because of increased traffic noise, litter, predator subsidies, pollution, conversion to cheatgrass-dominated landscapes, increased risk of wildfire, etc.*

[Our Comment] Issue 21: 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.

Addressed in FEIS: INADEQUATELY ADDRESSED. The FEIS Appendix O at 0-684 states that “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.” Downstream erosion, fuel spills, and herbicide treatments could enter the Virgin River, despite it being located 3 miles from the highway alternatives. The proposed highway/connection to Washington Parkway Extension crosses Mill Creek, Middleton Wash, and their feeder streams which all empty into the Virgin River. Once having entered the river, these pollutants or sediments could impact Yellow-billed cuckoo and other bird habitat.

[Our Comment] Issue 22: 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.

Addressed in FEIS: INADEQUATELY ADDRESSED. *See Issue # 21.*

[Our Comment] Issue 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.

Addressed in FEIS: INADEQUATELY ADDRESSED. *The FEIS Appendix O at 0-685 states that “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. 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).” Stormwater detention features would fail to prevent the spread of chemical leaks, herbicide treatments, fuel soil pollution, etc.*

[Our Comment] Issue 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.

Addressed in FEIS: INADEQUATELY ADDRESSED. *The FEIS Appendix O at 0-686 states that “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.” BLM failed to complete surveys in Zone 6 for BLM-sensitive species and other ESA-listed species that will be adversely impacted in the Red Cliffs NCA due to the Northern Corridor Highway. Simply stating that it is “suspected that proposed Zone 6 supports a variety of special status wildlife species populations as well” is a failure of analysis.*

3.7 Geology, Mineral Resources, and Soils

1. 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.

We stated that the construction of the Alternatives 2 through 4, as well as covered activities in the HCP will disturb the cryptobiotic soil crusts, allowing for at least temporary increases emissions of PM10 and PM2.5 particles because of the disruption and elimination of potentially hundreds of acres of cryptobiotic soil crusts. Destroying these soil crusts also allows for invasion by invasive plants species. Cryptobiotic soil crusts are an essential ecological component in arid lands. They are the “glue” that holds surface soil particles together precluding erosion, provide “safe sites” for native seed germination, resisting invasive species, trap and slowly release soil moisture, and provide CO2 uptake through photosynthesis (Belnap 2003, Belnap et al 2003, Belnap 2006, Belnap et al. 2007).

Addressed in FEIS: YES. *In the FEIS, BLM calculated the total acres of disturbed biological soil crust lost to each alternative and added discussion of direct and indirect impacts to biological soil crusts due to construction.*

3.8 Paleontology

1. 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.

Addressed in FEIS: INADEQUATELY ADDRESSED. *The FEIS Appendix O at 0-519 states that “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.” BLM should not rely on PFYC classes, but should have surveyed for paleo resources in each alignment.*

2. 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.

Addressed in FEIS: INADEQUATELY ADDRESSED. *The FEIS Appendix O at 0-472 responds: “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.”*

3.13 Visual Resources

3.13.1.2 Northern Corridor and Red Cliffs NCA RMP Amendments

1. Downgrading the VRM Class is inconsistent with the mission of the Red Cliffs Reserve.

Addressed in FEIS? No

2. The DEIS inadequately addresses impacts to viewshed, scenery, and designated wilderness, and must consider and uphold the VRM management objectives in special status areas.

Addressed in FEIS? No

3. Most of the Foreground/Middleground 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?

Addressed in FEIS? No

4. 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.

Addressed in FEIS? YES.

5. 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. This would be especially true for the Cottonwood Forest Wilderness Area.

Addressed in FEIS? INADEQUATELY ADDRESSED.

6. 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 alterative, 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.

Addressed in FEIS? INADEQUATELY ADDRESSED. BLM states that Zone 6 is not meant to be considered mitigation for damage caused by the NCH to visual resources.

7. 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.

Addressed in FEIS? INADEQUATELY ADDRESSED.

3.14 Cultural Resources and Native American Concerns

Table 3.14-1. National Register Eligible Cultural Resources in Each Northern Corridor Alignment

1. BLM fails to discuss how they will mitigate adverse impacts of the NCH on NHPA resources identified in the DEIS analysis.

We noted that the DEIS disclosed the presence of 8 National Register Eligible Cultural Resources in the UDOT Application Alignment for the NCH and that BLM failed to discuss how they will mitigate adverse impacts of the resources identified.

***Addressed in FEIS: INADEQUATELY ADDRESSED.** In the FEIS at Appendix O, BLM responded that they will continue consultation on mitigating and minimizing damage to cultural resources: “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.” BLM also noted that UDOT has created a revised POD that provides design features that minimize the increased risk of vandalism at cultural sites posed by the highway.*

However, BLM failed to describe the cultural resources that will be adversely impacted, or describe how this damage will be mitigated. BLM is not allowing the public to provide input on mitigating damage to cultural resources, and BLM is failing to discuss key sites, like the prehistoric petroglyph panel within the UDOT’s application alignment.

2. BLM fails to discuss how it will prevent or mitigate increased vandalism.

***Addressed in FEIS: INADEQUATELY ADDRESSED.** In the FEIS at 3-151, BLM notes that “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.” This is an important clarification, but it does not address how UDOT plans to mitigate or minimize adverse impacts through consultation with interested parties and Tribes that have documented vandalism in the area. Additionally, it does not address how adverse impacts excluding vandalism will be mitigated and minimized.*

3.14.2.1 Analysis Methods and Assumptions (DEIS page 3-121)

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

We noted that 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. The Red Cliffs NCA Draft RMP at 519 notes that cultural resource Class III investigations had been conducted on 12.51% of the land in the Red Cliffs National Conservation Area in

2015, leaving the vast majority of the NCA un-surveyed, including those areas around the proposed highway.

Addressed in FEIS: INADEQUATELY ADDRESSED. *The FEIS describes the survey protocol used to at 3-147: “The survey included a 700-foot corridor centered along the potential Northern Corridor alignments with survey personnel spaced at intervals not exceeding the Utah SHPO standard of 15 meters. The survey coverage included all areas except very steep slopes or impenetrable brush.” Again, the FEIS fails to account for indirect impacts to cultural resources (dust, vibration, noise, pollutants, increased risk of wildfire, adverse impacts to setting, etc.) that may occur beyond the 700-foot corridor that was surveyed. BLM must assess the full impacts of the highway on cultural resources in the NCA and conduct additional Class III investigations.*

4. 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.

Addressed in FEIS: INADEQUATELY ADDRESSED. *The FEIS failed to acknowledge the adverse impacts of downgrading the RMZ to cultural resources. The FEIS also failed to respond to the following point about Native American burials:*

“Archaeologists in Washington County have documented Native American burials in rocky crevices in washes. BLM must first consult with the Shivwits Band of the Paiute Indian Tribe of Utah, in addition to other Native American tribes with 134 affiliation to the area, and then survey Middleton and Chisel washes to ensure that there are no burials where the NCH crosses these washes.”

See Red Cliffs Conservation Coalition Comments on the Northern Corridor Draft Environmental Impact Statement and Related Management Plans at 133.

3.15 Recreation and Visitor Services

3.15.1 Affected Environment

1. 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.

Addressed in FEIS: Not Adequately

2. In addition, given the recent Turkey Farm Road and Cottonwood Trail wildfires, the DEIS does not represent current conditions, and supplemental information needs to be

provided in order to help decision-makers, land managers, and the public understand changes that have occurred to the NCA's recreational resources because of these wildfires.

Addressed in FEIS: Not Adequately

3.15.1.3 Recreation and Visitor Services in Proposed Zone 6

3. There are several activities not included in the DEIS that affect Zone 6 and the quality of the area as mitigation for impacts from the NC. These include illegal dumping, and other trash left from activities such as target shooting, partying, and paintball on SITLA portions of Zone 6, development of a massive residential area (Divario) directly adjacent to Zone 6's northeastern side and new development near Moe's Valley, and the visually disturbing presence of the electrical substation and transmission lines on the eastern side. Also missing from the DEIS is the disclosure of the Western Corridor (a planned future highway that would parallel the western boundary of Zone 6) and the expansions of Green Valley Drive and Navajo Drive (two highways that would travel through Zone 6 from East to West).

Addressed in FEIS: Not Adequately

4. The current condition of Zone 6 is quite a mix:

Addressed in FEIS: Not Adequately

3.15.2 Environmental Consequences

3.15.2.3 Direct and Indirect Impacts from Alternatives 2, 3, and 4

On the Red Cliffs NCA, SGFO RMP Amendments and Amended HCP/ITP

5. The DEIS analysis methods and assumptions for evaluating impacts to recreation and visitor services resulting from the proposed Northern Corridor are woefully inadequate

Addressed in FEIS: Not addressed

6. The DEIS did not define impacts to specific trails

Addressed in FEIS: Not addressed

Zone 6

7. Under Alternatives 2-4, the promises made by Washington County for Zone 6 in exchange for the ROW for the NC far exceed the reality that could be obtained. Zone 6 is a multiuser recreation area which recently has been bordered by development near the Moe's Valley bouldering area and the Gap climbing area, Bearclaw Poppy Trail used by mountain bikers and hikers, and the Zen Trail, used by hikers, mountain bikers, and climbers. This new development has begun the process of concentrating users. OHV users are crossing over bike paths in their attempts to continue usage. Many of these motorized visitors are from the short-term rental condos nearby, but also the new residential developments, which are marketed as having recreational activities in their backyards, are new sources of both motorized and non-motorized users. Camping on the rim of and inside the canyon of the Gap has left trash, multiple campfire rings and recently, a burn in the canyon. The SITLA lands are a maze of user-made trails. Makeshift target shooting ranges appear wherever people can obtain access.

Addressed in FEIS: Not Adequately

8. 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.

Addressed in FEIS: Not Adequately

9. The DEIS also does not discuss how the already-damaged areas in Zone 6 will be restored. There is graffiti, trash, trail scars, paintball relics, campfire scars, and other types of impacts. This is a heavily used recreation area, and it should be treated as such — a recreation area. It in no way can provide the same kinds of quiet recreational experiences that are enjoyed by recreators in the Red Cliffs NCA.

Addressed in FEIS: Not Adequately

10. Zone 6 is a multiuser recreation area which has recently been bordered by development near Moe's Valley bouldering area and the Gap, climbing area; Bearclaw Poppy mountain bike and hiking trail; as well as the Zen trail, mountain bike, hiking and rock-climbing area. This development has begun the process of concentrating users. OHV users are crossing over bike paths in their attempts to continue usage. OHV users often are from the short-term rentals found adjacent to the Gap area but recently UTVs are appearing to originate from the new developments which are billed as having access to outdoor recreation. Camping on the rim of and inside the canyon of the Gap has left trash, multiple campfire rings and recently a burn in the canyon. The SITLA lands are a maze of user made trails. Makeshift target shooting ranges crop up wherever people can obtain access.

Addressed in FEIS: Not Adequately

11. 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 full-time job to try to keep up with rule enforcement.

Addressed in FEIS: Not Adequately

12. There is also no mention of rehabilitation of the already damaged areas. As in the case with graffiti, most land managers would agree that graffiti must be removed promptly or more will follow. In Zone 6, there is graffiti, trash, trail scars, paintball relics and it goes on. This is a heavily used recreation area and should be treated as such, a recreation area.

Addressed in FEIS: Not Adequately

13. 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.

Addressed in FEIS: No

Equine Recreation

14. The proposed Northern Corridor Highway, if constructed, would undermine the intent of Congress when it passed the 2009 Omnibus Public Lands Act that formally designated the NCA. Among its declared purposes were to “conserve, protect and enhance” the public’s “enjoyment” of the NCA, including its scenic and recreational resources (P.L. 111-11, Sec. 1974(a)(1)).

Addressed in FEIS: No

15. The proposed Northern Corridor Highway bisects through the heart of the Red Cliffs NCA and by no means "conserves" the established public lands. The high volume of traffic would neither protect nor enhance the public’s use and enjoyment of this high-quality natural area.

Addressed in FEIS: No

16. Zone 6 doesn’t gain any recreational area which is not already available to non-motorized recreation. There is a distinct lack of trailheads with room for parking trailers with horses. Access is currently through residential areas. The increased traffic in these neighborhoods would be highly contentious and unwelcomed by those residents.

Addressed in FEIS: No

17. 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.

Addressed in FEIS: No

Interpretation/Visitor Understanding

18. 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.

Addressed in FEIS: Not Adequately

Education & Scientific Resources

19. It is imperative that scientific research on Mojave Desert tortoise populations and impacts is prioritized and fully supported under all alternatives, especially in light of this summer’s wildfires. 3.16 Land and Water Conservation Fund Act Lands [Section 6(f) Properties]

Refer to section II, Legal Issues subsection, item 2.

Addressed in FEIS: Not Adequately

3.16 LWCF

3.16.1 Affected Environment

1. This statement seems to be incompletely stated. The law states that only state-side 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(f)(3)) does not apply to the federal side (54 U.S. Code § 200306)

Inadequate response in the FEIS.

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.

Inadequate response in the FEIS.

3.16.2 Environmental Consequences

3.16.2.1 Analysis Methods and Assumptions

3. This assumption is invalid: mitigation does not apply since the State LWCF/section 6(f) condition does not apply to Federal LCWF lands; they may not be converted.

Inadequate response in the FEIS.

3.16.2.4 Direct and Indirect Impacts from Alternative 5

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.

Inadequate response in the FEIS.

3.16.2.3 Direct and Indirect Impacts from Alternatives 2, 3, and 4

5. This encroachment is illegal. See reference in comment 1 above.

Inadequate response in the FEIS.

6. 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.

Inadequate response in the FEIS.

3.17 BLM Transportation and Travel Management

1. Overall, the Northern Corridor would significantly decrease use of visitor access points by introducing sound and visual pollution into the experience.

Inadequate response in the FEIS.

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.

Inadequate response in the FEIS.

3.18 National Conservation Area

[Our Comment] Issue 1: BLM’s analysis shows that UDOT Alignment Alternative 3 cannot be granted under OPLMA of 2009 because it would cause severe adverse and permanent impacts to the Red Cliffs NCA’s objects and values, whereas Alternatives 5 and 6 would not for the following reasons: [See Red Cliffs Conservation Coalition Comments on the Northern Corridor Draft Environmental Impact Statement and Related Management Plans at 154-168.

We noted that BLM must conserve, protect and enhance the Red Cliffs NCA’s objects and resource values in accordance with the Congressionally-defined purposes identified through OPLMA of 2009. BLM must not site the NCH ROW inside of the NCA.

Addressed in FEIS: INADEQUATELY ADDRESSED. *The FEIS Appendix O at 0-494 states that “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 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.” However, these additional features and measures function as little more than band-aids slapped on a project that causes severe and adverse direct, indirect and cumulative impacts to the NCA’s objects and values.*

3.20 BLM Lands and Realty

3.20.1 Affected Environment

3.20.1.1 Land Tenure

Red Cliffs NCA

1. BLM investments of taxpayer money in property to preserve as habitat should not be violated by the Northern Corridor. That would represent a mis-use of funds.

Inadequate response in the FEIS.

3.22 Fire and Fuels Management

3.22.1 Affected Environment

1. Highways such as the Northern Corridor exacerbate the invasion of invasive species by providing a clear pathway for seeding.

Not addressed in the FEIS.

3.22.1.1 Vegetation Condition Class

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.

Not addressed in the FEIS.

3.22.1.2 Fire Occurrence

3. The citing of the number of fires and acres burned must be updated to include the July 2020 Turkey Farm Road and Cottonwood Trail fires. Note that these devastating fires were started due to the proximity of roadways such as the proposed Northern Corridor.

Not addressed in the FEIS.

3.22.1.3 Wildfire Suppression

4. As demonstrated by the 2020 fires in Zone 3, these fire suppression efforts do not stop widespread damage, and fires are enabled by roads, such as those planned in Zone 6.

Not addressed in the FEIS.

3.22.2 Environmental Consequences

3.22.2.3 Direct and Indirect Impacts from Alternatives 2, 3, and 4

5. 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.

Not addressed in the FEIS.

6. It is demonstrated on a frequent basis that highways are not effective fire barriers as wind-driven sparks easily hop a highway.

Not addressed in the FEIS.

7. Any highway through the NCA would dangerously increase the risk of fire and extreme danger to tortoises and their habitat. It cannot be allowed.

Not addressed in the FEIS.

8. 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."

Not addressed in the FEIS.

9. 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."

Not addressed in the FEIS.

10. 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.

Not addressed in the FEIS.

11. As in the comment above, the planned road developments greatly increase the fire danger.

Not addressed in the FEIS.

12. As evidenced by the 2020 fires in Zone 3, fire management is woefully insufficient.

Not addressed in the FEIS.

Relating to “fire” references throughout the DEIS

13. The DEIS fails to adequately assess and mitigate potential impacts of the Alternatives to wildfire risk.

Not addressed in the FEIS.

3.23 Noise

[Our Comment] Issue 1: BLM has failed to adequately inventory and assess Natural Soundscapes in the draft Red Cliffs NCA RMP.

We stated that BLM should complete a thorough analysis of the natural soundscapes within and around the planning area. In order to adequately monitor, mitigate and/or minimize the impact of unnatural, disturbing, and damaging noises from both activities within and outside the NCA, BLM must obtain this baseline information.

Addressed in FEIS: INADEQUATELY ADDRESSED. *The FEIS Appendix O at 0-504 states that “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. 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. 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.” Impacts to the public from increased noise are effects to be considered under NEPA. Yet, in its FEIS, BLM failed to measure, monitor and assess the impacts on ambient noise levels of the RMP Amendment, the subsequent NCH, and the up-to 22,000 vehicle trips per day that are projected to use this highway. First, BLM failed to even assess the background noise levels in the heart of the Red Cliffs NCA and in areas impacted by UDOT’s NCH route. See FEIS at 3-196, Table 3.23-1; FEIS at App. K, p. 10, Fig. 3 (map of noise measurement locations). More specifically, BLM’s noise consultant established five measurement locations to determine background noise levels, and not one of these monitoring locations was sited on or around UDOT’s NCH corridor, on the undeveloped public lands in the heart of the Red Cliffs NCA, or within designated critical habitat for the desert tortoise. See*

FEIS, App. K at 10. And BLM provides no reasoned explanation why its baseline noise data ignored these important areas and resources.

3.26 Socioeconomics

3.26.1 Affected Environment

3.26.1.3 Land Use and Value

1. There appears to be a pre-decisional bias exhibited by the Washington County purchases in September 2019, three months before NEPA scoping starts:

Addressed in FEIS: NA

3.26.2 Environmental Consequences

3.26.2.1 Socioeconomics

Analysis Methods and Assumptions

2. The assumptions made in this section are highly dependent on design options for each alternative and as a result cannot be accurate. There are many possible implementations of design concepts for DEIS alternatives 5 and 6 with widely variable impacts.

Addressed in FEIS: NA

3. 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.

Addressed in FEIS: Not adequately

4. We dispute the assumptions that job, family income and development impacts would be significant. There is no basis presented to support these assumptions.

Addressed in FEIS: not adequately

Direct and Indirect Impacts from Alternatives 2, 3, and 4

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.

Addressed in FEIS: not adequately

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.

Addressed in FEIS: No

7. Increase in traffic and noise would be significant for all alternatives inside the NCA, and insignificant for those outside.

Addressed in FEIS: not adequately

8. The traffic mitigation applies to all alternatives

Addressed in FEIS: not adequately

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.

Addressed in FEIS: not adequately

Direct and Indirect Impacts from Alternative 5 (Red Hills Parkway Expressway)

10. This section describes the development required to implement alternative 5 as defined by the DEIS. While this particular design may provide the best projected traffic congestion relief, it also requires the most disturbance to private property, we contend that the necessary traffic relief can be achieved with much less disturbance. The alternative described by Conserve Southwest Utah provides an example of a design alternative satisfying this condition. There should be a public engagement in developing the specific design alternative to be carried forward.

Addressed in FEIS: not adequately

Table 3.26-6. Alternative 5 Property Impacts

11. We contend that the impacts outlined in this table can be significantly reduced with a broadened consideration of design alternatives. We further contend that these impacts have been exacerbated by the county's lack of growth planning, driving unnecessary transportation improvements and hampering transportation alternatives.

Addressed in FEIS: not adequately

Direct and Indirect Impacts from Alternative 6 (One-way Couplet)

12. 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.

Addressed in FEIS: not adequately

13. 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.

Addressed in FEIS: NA

14. 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.

Addressed in FEIS: No

Table 3.26-7. Alternative 6 Property Impacts

15. The design of the couplet as described in the appendix and as addressed in the table of property impacts is perhaps one that would maximize traffic flow as well as maximize negative community impact. A design is possible that both significantly improves traffic flow, relieving congestion at key intersections, and significantly improves business

access, active transportation, walkability, and the overall livability of the downtown area, substantially enhancing it. The design should be addressed by engaging the community in solving traffic problems in a way that enhances the community and the environment.

Addressed in FEIS: not adequately

3.26.2.2 Traffic and Transportation

Analysis Methods and Assumptions

16. 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.

Addressed in FEIS: not adequately

17. 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.

Addressed in FEIS: not adequately

3.28 Cumulative Effects

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 in-holdings 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.

Addressed in FEIS: INADEQUATELY ADDRESSED. *The FEIS Appendix O at 0-65 states that “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.” While it’s good that BLM increased the planning horizon length by 5-10 years, the agency still failed to analyze projects including the Babylon Road, Navajo Dr. extension and Green Valley Dr. extension that will have a direct impact on Mojave desert tortoise critical habitat and proposed mitigation for the Northern Corridor Highway.*

3.28.1 Impact Assessment Methodology

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.

Addressed in FEIS: INADEQUATELY ADDRESSED. See above. BLM expanded the planning horizon but failed to include assessment of pertinent projects.

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.

Addressed in FEIS: INADEQUATELY ADDRESSED. The FEIS Appendix O at 0-73 states that “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.” However, BLM directly contradicts this statement by stating elsewhere in the FEIS that one of the threats to the East Cottonwood Analytic Unit (where the proposed Northern Corridor Highway would be constructed) is development associated with the creation of independent HCP’s: “East Cottonwood: Diverse vegetation, sandstone outcrops, partially burned, high prevalence of invasive plant species; threats include potential for development with independent HCPs on non-Federal lands, roads, poor connectivity, invasive grasses, repeat wildfires” (FEIS at 3-59).

3.28.1.1 Vegetative Communities, Including Noxious Weeds and Invasive Species

4. 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.

Addressed in FEIS: INADEQUATELY ADDRESSED. The FEIS Appendix O at 0-735 states that “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 within 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. 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.” BLM fails to correct its statement that the loss of vegetation is substantial for alternatives 5 and 6 located outside of the Red Cliffs NCA and requiring reconfiguring/improvements to existing roadways.

5. 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.

Addressed in FEIS: INADEQUATELY ADDRESSED. *The FEIS Appendix O at 0-735 states that “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 within 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. 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.” BLM misinterprets the comment. This comment states that the NCH would increase the risk of development on non-Federal lands within the Red Cliffs NCA and Desert Reserve.*

3.28.1.2 Special Status Plants

6. The first highlighted statement above is untrue: it only holds true for alternatives 2-4.
Addressed in FEIS: INADEQUATELY ADDRESSED. *See Issue #4.*
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.
Addressed in FEIS: NO. *See Issue #5.*

3.28.1.3 General Wildlife

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. We contend the effects would be significant.
Addressed in FEIS: INADEQUATELY ADDRESSED. *See Issue #1.*

3.28.1.4 Special Status Wildlife

9. We disagree that the effect would be moderate (see von Seckendorff, Hoff and Marlow, 2002)
Addressed in FEIS: INADEQUATELY ADDRESSED. *The FEIS refuses to analyze indirect impacts of the NCH to 4.6 km, because the agency states that the NCH will be a fenced road and the Hoff and Marlow study only applies to unfenced roads.*
“How much of an impact an unfenced 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 Seckendorff Hoff and Marlow 2002).”
FEIS 3-46.*

This is a misstatement of Hoff and Marlow (2002). In their paper, they say that:

“Although there is abundant reason to believe that the installation of fences and other barriers along roadways will do much to reduce direct tortoise mortalities, the effects of fragmentation caused by those roads and fences on the desert tortoise population as a whole has yet to be addressed.” Page 455.

Further, the coalition cannot find anywhere in Hoff and Marlow where the authors say that they were looking at unfenced roads.

Whether fenced or unfenced, the impacts of roads (fire, noise, vibration) still exist, we don’t see why the BLM would limit the extent of the road effect zone to 508 m.

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.

Addressed in FEIS: INADEQUATELY ADDRESSED. *The FEIS Appendix O at 0-692 states that “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. Text was modified to clearly define the conservation benefits of proposed Zone 6.” Despite the additional text, BLM still fails to demonstrate how Zone 6 (with the proposed road intrusions, large network of OHV and motorized trails, heavy resource damage, incompatible recreation uses, and lack of staffing and funding to remedy them) can offset damage to critical habitat and federally-listed species.*

3.28.1.5 Endangered Species Act Section 6 Land Acquisition Grants

11. The DEIS has an incorrectly shortened future view and thus inappropriately omits consideration of several planned road developments within the proposed zone 6. The projects should be added to table 3.28-1 and their impacts should be included.

Addressed in FEIS: INADEQUATELY ADDRESSED. *See Issue #1.*

3.28.1.12 Visual Resources

12. As noted earlier, the unusually short analysis time window misses the planned roadway development in Zone 6, making these conclusions incorrect.

Addressed in FEIS: INADEQUATELY ADDRESSED. See Issue #1.

3.28.1.13 Cultural Resources and Native American Concerns

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.

Addressed in FEIS: INADEQUATELY ADDRESSED. See Issue #3.

3.28.1.14 Recreation and Visitor Services

14. Alternative 5 should not be lumped with alternatives 2-4 in the assessment of impact since it is much less.

Addressed in FEIS: INADEQUATELY ADDRESSED. See Issue #4.

15. The potential future development of private in-holdings in zone 3 would have major impacts.

Addressed in FEIS: INADEQUATELY ADDRESSED. See Issue #3.

16. Alternative 6 could be designed to significantly benefit visitor experience

Addressed in FEIS: NO.

3.28.1.15 Land and Water Conservation Fund Act Lands [Section 6(f) Properties]

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.

Addressed in FEIS: INADEQUATELY ADDRESSED. See Issue #3.

3.28.1.18 Areas of Critical Environmental Concern

18. As stated earlier, the DEIS has an inappropriately shortened future view and thus omits consideration of several planned road developments within the proposed zone 6. These developments should be considered and would have an adverse effect on the ACEC.

Addressed in FEIS: INADEQUATELY ADDRESSED. See Issue #1.

3.28.1.19 BLM Lands and Realty

19. Alternatives 2-4 would greatly increase the complexity of BLM lands and reality 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.

Addressed in FEIS: INADEQUATELY ADDRESSED. See Issue #3.

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.

Addressed in FEIS: INADEQUATELY ADDRESSED. The FEIS Appendix O at 0-48 states that "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." This response fails to address the larger issue that by amending the RCNCA RMP to allow the NCH to travel through a designated avoidance area, the agency will

cause adverse impacts to critical habitat and federally-listed species, thereby violating the 2009 OPLMA.

3.28.1.21 Fire and Fuels Management

21. As stated earlier, the DEIS has an inappropriately shortened future view and thus omits consideration of several planned road developments within the proposed zone 6. These developments should be considered and would have an adverse effect on fire and fuels management.

Addressed in FEIS: INADEQUATELY ADDRESSED. *See Issue # 1.*

3.28.1.22 Noise

22. As stated earlier, the DEIS has an inappropriately shortened future view and thus omits consideration of several planned road developments within the proposed zone 6. These developments should be considered and would have an adverse effect on noise in zone 6.

Addressed in FEIS: INADEQUATELY ADDRESSED. *See Issue # 1.*

3.28.1.23 Hazardous Materials and Solid Waste

23. As stated earlier, the DEIS has an inappropriately shortened future view and thus omits consideration of several planned road developments within the proposed zone 6. These developments should be considered and would have an adverse effect on Hazardous Materials and Solid Waste in zone 6

Addressed in FEIS: INADEQUATELY ADDRESSED. *See Issue # 1.*

3.28.1.24 Human and Health Safety

24. We disagree with the highlighted statement. The benefit of emergency response is offset by the danger inherent in a highway.

Addressed in FEIS: NO. *The FEIS Appendix O at 0-472 responds only:*

“Comment noted. Note: Table 3.28-1 in the Draft EIS is Table 3.28-2 in the Final EIS.” BLM fails to analyze the increased risk of catastrophic wildfire that would be introduced by building the NCH in areas where exotic, invasive vegetation (i.e., cheatgrass) dominate the landscape in percentages 30% and greater.

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.

Addressed in FEIS: NO. *The FEIS Appendix O at 0-472 responds only:*

“Comment noted.”

3.29 Climate-Related Impacts

26. 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.

Response: H 65-305: “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. 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. “

Comment Resolved: No. *There was text added to Chapter 3, Affected Environment and Environmental Consequences, Climate Change that discusses projected temperature and precipitation changes under different climate model scenarios, at 3-56. While the FEIS does discuss threats to the tortoise from climate change, it does not discuss how a road through tortoise habitat would exacerbate and multiply already high level of threats to the desert tortoise.*

27. The DEIS fails to analyze how each of the alternatives could exacerbate direct, indirect and cumulative impacts of expected climate change.

Response: H 65-305: 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.

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. 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.

Comment Resolved: No. *Table 3.5-11 identifies how many acres of tortoise habitat would be destroyed by the alternatives. We agree that the three ROWs proposed to go through the reserve would each result in similarly high levels of harm to the tortoise compared to alternatives that do not go through the NCA. However, the FEIS still fails to acknowledge that climate change is a threat multiplier that amplifies environmental threats. Ecosystem degradation caused by habitat fragmentation from a freeway in combination with climate change will have cascading effects. The FEIS does not acknowledge or evaluate this fact. A proper analysis would have evaluated the threats from climate change in combination with threats from highway alternatives that would fragment the NCA. When viewed in combination, the threat levels to tortoises become significantly higher than what the FEIS discloses compared to alternatives that do not go through NCA.*

28. The DEIS fails to take a hard look at the direct, indirect and cumulative impacts of each alternative on the ability of tortoises to migrate to higher elevations.

Response: H. 65-306: 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.

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.

Comment Resolved: Not adequately. *The FEIS did go back and address ability of tortoises to access the approximately 2,360 of potential habitat on the Reserve between 4,500-5000 foot elevation. However, the FEIS only evaluated up to 4,500 feet elevation and not 5,000 feet. Further, while the FEIS now says that tortoises would be able to access elevation up to 4,500, they acknowledge that there have been no surveys to determine whether the habitat at higher elevations is suitable for tortoises. Without knowing whether the habitat is suitable for tortoises, the mere ability for a tortoise to access the area is irrelevant if the higher elevation habitat is not suitable.*

The FEIS has added that “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.”

The addition of “spaced passage ways” along the length of the proposed corridor as mitigation is inadequate to compensate for the harm that would be caused by the ROW alternatives across the Reserve.

29. The DEIS Fails to take a hard look at how each alternative would impact water resources under climate change scenarios.

Response 65-307: 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.

Comment Resolved: Yes.

30. The DEIS Fails to Fully Quantify Direct, Indirect, and Cumulative Greenhouse Gas Emissions.

Response 65-309: 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 effected 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 CO₂. 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.

Comment Resolved: Not adequately. The addition in the FEIS acknowledged that the ROW alternatives proposed to go through the NCA “could reduce the amount of carbon that can be sequestered from effected land. The northern corridor alignments would disturb more land as compared to the other alternatives that propose improvements to existing roadways.” The next statement in the FEIS however, is misleading as to the effects of sequestered carbon from the land. The FEIS adds, “However, there would be little to no change in the number of land acres disturbed as compared to each of the northern corridor alignments.” Sage steppe habitat holds significant carbon in the soils that would be disturbed via road construction, as well as eliminating future natural carbon sequestration by plants and soils. Acres disturbed to alter existing roadways is not the correct metric for comparing emissions from disturbing natural habitat. Disturbing existing roadways would not release as much carbon as degrading land that is still functioning as carbon sinks.

Chapter 4. Consultation and Coordination

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.

Not addressed in the FEIS

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.

NA

3.2.3 Accountability of DEIS Comments on the DEIS Appendices

H. Inconsistencies between the Northern Corridor Project and the Land Use Plans, Policies, and Controls of Washington County and the City of St George

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.

Addressed in FEIS: INADEQUATELY ADDRESSED. In the FEIS Appendix O at 0-343, BLM states that “Adjustments to livestock grazing are analyzed in more detail in Section 3.5 and 3.21 of the EIS.” However, the adjustments made pertain to the AUM’s that would be lost in Zone 6 if the NCH was granted and the SGFO RMP Amendment limiting grazing was implemented. However, BLM failed to demonstrate that these areas that have been previously grazed (even if they were grazed ten years ago) are not degraded.

2. There should be but there is not plan to reduce grazing that damages habitat. This indicates Zone 6 cannot be used for mitigation.

Addressed in FEIS: INADEQUATELY ADDRESSED. In the FEIS Appendix O at 0-344, BLM states that “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.” BLM partially addressed the concern regarding grazed habitats in Zone 6 being unsuitable for desert tortoise conservation. However, BLM failed to provide baseline conditions(i.e., percentage of exotic invasive species; amount of biological soil crust lost; etc.) for currently and previously-grazed allotments in Zone 6. Additionally, BLM failed to demonstrate how previously-grazed allotments would be restored for desert tortoise conservation.

3. 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. This is another proof of Zone 6 being incapable of mitigating damage to the RCNCA.

Addressed in FEIS: INADEQUATELY ADDRESSED. See Issues #1 and #2.

4. We disagree with this assertion. There are design alternatives that would accommodate medians.

Addressed in FEIS: NO. The FEIS failed to consider Conserve Southwest Utah’s ideas to explore in the preliminary and detail design phase for the One-way Couplet that would preserve the median on St. George Blvd:

- *“1. Do not remove the center medians or their planters on St George Blvd, but rather consider a mix of traffic movement lanes and parking/shopping/walking/cycling lanes.*

- 2. *Evolve this downtown core into an attractive business/shopping/tourist district. St George lacks an attractive core downtown, even though it is beginning to evolve one.*
- *DEIS alternative 6, the One-Way Couplet in downtown St George, proposes to remove the median on St George Boulevard rather than seeking a design that both enables traffic flow and enhances the pedestrian and business experience in downtown. Instead, consider leaving the median, provide efficient traffic flow on one side and parking/shopping traffic and bicycle flow on the other side.”*

See Red Cliffs Conservation Coalition Comments on the Northern Corridor Draft Environmental Impact Statement and Related Management Plans 18 and 207.

J. Highway Alternatives Development Technical Report

1. Introduction

1.1 Background and Previous Studies

1. The DEIS fails to conclude that any highway in the NCA satisfied the purpose of the NCA. It cannot be allowed.

Not addressed in the FEIS

2. The OPLMA does not require a northern transportation route inside the NCA; it merely has to be inside the county. Highways inside the NCA are not compatible with the purpose and therefore cannot be allowed. This especially true when there are superior viable alternatives outside the NCA.

Not addressed in the FEIS

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.

Not addressed in the FEIS

4. Nothing has changed since this ruling, upheld by the Interior Department Appeal. The highway ROW still should not be granted.

Not addressed in the FEIS

2. Purpose and Need for Right-of-way Application

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.

Not addressed in the FEIS

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.

Not addressed in the FEIS

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.

Not addressed in the FEIS

8. The balance cannot violate laws, especially when superior solutions exist outside the NCA.

Not addressed in the FEIS

2.1 Right-of-Way Applicant's Objectives and Transportation Need

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.

Not addressed in the FEIS

2.1.1 Regional Travel Demand Model Overview

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.

Not addressed in the FEIS

3. Alternative Development

11. And yet, in preferring Alternative 3, the highway through the NCA, the BLM violates its own guidance, choosing the alternative the applicant likes rather than the one that is most reasonable (the alternatives outside the NCA).

Not addressed in the FEIS

4. Alternatives Considered

4.11 Increased Use of Mass Transit

12. The dismissal of this alternative is based on the assumption that the county must continue its current development concept that enables urban sprawl. This assumption should not be considered valid, and certainly it is not a valid reason to violate protected lands.

Not addressed in the FEIS

4.13 Land Use/Growth Regulation

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.

Not addressed in the FEIS

4.14 Conserve Southwest Utah Community Transportation Alternative(s)

14. While it is true that these alternatives are being considered, their design concepts have been altered in a manner that increases business impacts and implementation costs without providing the commensurate increase in traffic flow. For example,

Not addressed in the FEIS

15. We disagree with the assertion that consideration of these alternatives is outside the scope of this DEIS, any more than any of the alternatives outside of the NCA are outside the scope. Poor growth and transportation planning by local governments cannot be used as the excuse to violate protections on public lands.

Not addressed in the FEIS

16. We disagree with the assertion that these alternatives would not significantly improve traffic flows at the projected congested intersections. On the contrary, they would remove significant traffic from those intersections. The analysis forming the basis for their dismissal should be presented for public review.

Not addressed in the FEIS

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

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.

Not addressed in the FEIS

5.2 Resource Impact Assessment

5.2.1 Resource Comparison Results

Table 7. Mojave Desert Tortoise Impact Assessment Results

18. Another obvious conclusion: alternatives inside the NCA fail to protect the tortoise and its habitat, while those outside accommodate that protection.

Not addressed in the FEIS

Table 8. Property Impact Assessment Results

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.

Not addressed in the FEIS

5.2.2 Alternatives Considered but Not Analyzed in Detail

20. 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.

Not addressed in the FEIS

L. Traffic Analysis Memorandum

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:

Not addressed in the FEIS

3.2.4 Accountability of Comments on the Draft Amended Washington County HCP

The resolution of these issues is out of scope for the FEIS Protest.

1. The Draft HCP Violates the ESA Best Available Science Requirement and NEPA's Requirement to Address Significant New Information
 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.
 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.
 3. The county cannot carry forward any so-called "unused authorized incidental take" from the original HCP.
 4. Washington County Cannot Rely on a 25-year-old EIS and BO to support its new incidental take limit.
 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.
 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.
 7. The draft HCP cannot rely on voluntary conservation measures to mitigate and minimize the impacts of its proposed incidental take of MDT.
 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.

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.
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.
11. 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.
12. Existing conservation efforts have failed to arrest the decline in MDT populations and habitat.
13. Construction of the NCH would violate previous conservation measures, designed to minimize and mitigate impacts on MDT.
14. Uncompleted Reserve Acquisition Strategy leave the MDT and critical habitat at significant risk.
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.
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.
17. The Service Cannot Grant Washington County’s ITP Application because it does not meet OMB requirements.
18. The Northern Corridor Highway and Associated Mitigation is not a “Changed Circumstance.”
19. The Draft HCP Failed to Examine a Reasonable Range of Alternatives
20. The draft HCP improperly carries forward the original HCP’s No Surprises clause despite the foreseeable Northern Corridor Highway.
21. been successful despite a 41 percent decline of tortoises in the RCDR and a 24 percent decline of tortoises in the UVRRU.
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.
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.

3.2.5 Accountability of Comments on the Draft HCP Implementation Agreement *The resolution of these issues is out of scope for the FEIS Protest.*

1. The Draft Implementation Agreement is Inadequate
 The draft implementation agreement (IA) is inadequate because it either omits or provides insufficient information under the six required elements of an IA.

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 UVRRU 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.
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.
4. 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 UVRRU tortoise populations. This draft IA 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.
5. 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.
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.
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 IA should supersede a previous one.
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.
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.
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, ITP, 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.

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, OPLMA, FLPMA, or APA.
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.
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.
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.
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.

3.2.6 Accountability of DEIS Comments on the UDOT Plan of Development

The resolution of these issues is out of scope for the FEIS Protest.

1. Overview

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.

1.1.1 Preliminary Plan of Development

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.

2. Applicant's Objectives

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.
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.

4. Project Description

4.2 Roadway Design

4.2.1 Engineering Standards

4.2.1.1 Design Speed

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.

4.2.1.6 Intersection Location and Design

6. This seems to be an inadequate plan, as projected future traffic volumes would make it untenable.
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.

4.3 Permitting Requirements and Pre-Construction Surveys

4.3.1 Permits and Approvals

8. Conserve Southwest Utah is making a statement for the record that they are an interested party mentioned in Table 2.
9. Table 2 should define who grants which permissions using what criteria.
10. There should be an independent oversight of the approval process.

4.4 Project Construction

4.4.1 Construction Phasing

11. Currently anticipated timing of the phases should be defined. It is our understanding that phase 1 would begin construction in 2040 and phase 2 in 2050.

6 Mitigation of Environmental Concerns

Table 3. Design Features of the Project for Environmental Protection

12. The table indicates plans are to be submitted and to whom, but it should also address the approval and issue resolution processes.
13. There should be sections on Fire Prevention and Suppression, Invasive Species Invasion Prevention, Garbage/Litter Prevention and Collection, Predator Invasion Prevention.
14. Fires should not be allowed under any condition.
15. Wildlife pathways over/under the highway should be defined.

3.3. EIS Review/Response Process Issues

1. Non-response to requests

These issues were raised during the EIS review processes and were either ignored or given inadequate responses:

- Supplemental DEIS requested to address the 2020 wildfires in the Red Cliffs NCA.
- US House of Representatives Natural Resources Committee letter to the Secretary of the Interior to halt the NEPA process to address the wildfires and LWCF purchases.
- Supplemental DEIS requested to address cost estimate issues: reason for inclusion, impact on outcome, underlying design issues.

2. While updates made in FEIS reflect acknowledgment of several issues and makes improvements, actually making a stronger case against the “preferred alternative” and for the alternatives outside the NCA, there is still no rationale offered for the preference.

3. We appreciate the concept and the effort to respond to our Scoping and DEIS Comments in Appendix O of the FEIS. We had expected such an accounting of our Scoping Comments to have been included in the DEIS, and it’s too late to include them in the Final. Overall, the responses were very difficult to process for these reasons:

- The relationship between the identification code assigned for each commentor and the commentor’s name was not disclosed in the Appendix, and the commentor’s identification code varied depending topic in the DEIS, making it very difficult to locate comments of interest within a topic area.
- There was no relationship between the comment ID in submitted comments to the comment ID Appendix O, making it extremely difficult to find the original submitted comment and its corresponding response in the Appendix.
- The cross-referencing of responses made it very difficult to find and understand the response. It was very labor-intensive.
- Appendix O is 757 pages of very tightly packed text. Processing that volume, with the handicaps mentioned in the first 3 points of this issue, is extremely difficult, making one wonder if that was the intent.
- Many of the responses seemed circular, non-responsive, “canned” or illogical. Many of them may have well said that the DEIS said what it did because the Northern Corridor was requested by the county and the Department of Interior directed that it must be approved, not matter what the pertinent federal laws required.
- A response of “outside the scope of the EIS” was commonly used. It seems to be an arbitrary response since there are many elements in the FEIS that could have similarly been declared as outside of the agencies’ scope, such as considering alternatives outside of federally-managed lands. In some cases, such alternatives were dismissed as outside of the agencies’ control, and yet others of the same nature were considered valid for analysis.
- In many cases a response cited that the issue was speculative. This seems one-sided since the whole purpose and need statement is speculative, assuming that traffic congestion will require relief due to population growth.

- We had requested a version of the FEIS with “revision marks” turned on, expecting to be able to see the actual changed text from the DEIS baseline. While having a version of the FEIS that identifies lines that were updated from the DEIS baseline, not having the actual revisions noted made the review and analysis VERY difficult. We don’t understand why a fully revision-marked version was not made available. This seems to be a completely arbitrary decision that was very impactful on the public.

It appeared that nothing of major significance was improved in the FEIS as a result of the many, many hours of effort by our team and our members put into writing substantive DEIS comments. It demonstrates a very poor relationship between the federal agencies and the public, and certainly further erodes the trust and faith in an honest and unbiased analysis.

4. This process, from the definition of the purpose and need through the public review of the Final EIS, and most assuredly through the processing of protests and the issuance of the Record of Decision, is an example of how not to engage a community in the definition of a problem space and the identification and analysis of alternative solutions. Our local governments, that is, Washington County and its municipal governments, have failed to adequately engage their constituents in discussions which should have properly preceded any NEPA process. Without this prior engagement, the NEPA process enables only a very ineffective communication mechanism. In this case, the implementation of that mechanism by the federal agencies in cooperation with our government entities only demonstrated how a very poor pre-determined conclusion can be realized despite significant and substantial public input. It is an example of government doing what it is in its power to do rather than doing what is in the interests of its constituency.

Exhibits

Attachment to Conserve Southwest Utah's Comments on the Long Valley Road Extension Right-of-Way Environmental Assessment. DOI-BLM-UT-C030-2020-0004-EA

Conserve Southwest Utah Comments on DOI-BLM-UT-W010-2019-0008-EA (Public Law 114-328 Utah Test and Training Range (UTTR) Land Exchange). September 6, 2019.

Conserve Southwest Utah's Comment on the Long Valley Road Extension Right-of-Way Environmental Assessment DOI-BLM-UT-C030-2020-0004-EA. December 4, 2020.

Esque et. all. 2003. Effects of Desert Wildfires on Desert Tortoise (*Gopherus agassizii*) and Other Small Vertebrates. *The Southwestern Naturalist*, Mar., 2003, Vol. 48, No. 1 (Mar., 2003), pp. 103-111 Published by: Southwestern Association of Naturalists. Stable URL: <http://www.jstor.com/stable/3672747>

Habitat Conservation Advisory Committee for the Washington County Habitat Conservation Plan (HCP). Meeting Minutes from October 27, 2020.

J. Mark Peaden, Tracey D. Tuberville, Kurt A. Buhlmann, Melia G. Nafus, Brian D. Todd "Delimiting road-effect zones for threatened species: implications for mitigation fencing," *Wildlife Research*, 42(8), 650-659, (18 December 2015)

Kellam, J. 2020. Red Cliffs National Conservation Area Cottonwood Trail Fire Tortoise Mortality Survey Report. Bureau of Land Management, St. George Field Office, 345 East Riverside Drive, St. George, Utah.

McLuckie et. all. 2019. Regional Desert Tortoise Monitoring in the Red Cliffs Desert Reserve, 2019. Publication Number 20-06. Utah Division of Wildlife Resources. 1594 W. North Temple, Salt Lake City, Utah. Michal D. Fowlks, Director.

Red Cliffs Conservation Coalition Comments on the Northern Corridor Draft Environmental Impact Statement and Related Management Plans. September 10, 2020.

Red Cliffs Coalition Issues with the Inclusion and Consideration of Cost Estimates in the Northern Corridor Final Environmental Impact Statement, 2800 (UTC0300), UTU-93620. October 26, 2020.

Red Cliffs Conservation Coalition Request for Supplemental DEIS in Response to Wildfires in the Red Cliffs NCA. July 21, 2020.

Red Hills Parkway State Route 18 (Bluff Street) to Industrial Road Washington County, Utah Environmental Assessment and Draft Section 4(f) Evaluation. November 2007. U.S. Department of Transportation Federal Highway Administration and Utah Department of Transportation.

Scoping Comments on the Proposed Environmental Impact Statement for the Northern Corridor Highway in Washington County (UT) Submitted by the Red Cliffs Conservation Coalition. January 6, 2020.

U.S. Fish and Wildlife Service (USFWS). 2020. Draft Biological Report: Biological Report for the Upper Virgin River Recovery Unit Population of Mojave Desert Tortoise (*Gopherus agassizi*). Prepared by the Utah Ecological Services Field Office, U.S. Fish and Wildlife Service. Salt Lake City, Utah. Version 1, Draft Report, April 2020.

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.

von Seckendorff Hoff, K. and R.W. Marlow. 2002. Impacts of Vehicle Road Traffic on Desert Tortoise Populations with Consideration of Conservation of Tortoise Habitat in Southern Nevada. *Chelonian Conservation and Biology* 4(2):449-456.