



**DESERT TORTOISE COUNCIL**

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**Via email and BLM NEPA ePlanning Portal**

Date: December 28, 2023

Attn: Dawna Ferris-Rowley, Project Manager  
Bureau of Land Management  
Attn: Northern Corridor SEIS  
345 East Riverside Drive  
St. George, UT 84790  
[BLM\\_UT\\_NorthernCorridor@blm.gov](mailto:BLM_UT_NorthernCorridor@blm.gov)

RE: Scoping Comments on the Supplemental Environmental Impact Statement to Reconsider a Highway Right-of-Way Application and Associated Amendment of an Incidental Take Permit, Washington County, Utah (DOI-BLM-UT-C030-2023-0038-EIS)

Dear Ms. Ferris-Rowley,

The Desert Tortoise Council (Council) is a non-profit organization comprised of hundreds of professionals and laypersons who share a common concern for wild desert tortoises and a commitment to advancing the public's understanding of desert tortoise species. Established in 1975 to promote conservation of tortoises in the deserts of the southwestern United States and Mexico, the Council routinely provides information and other forms of assistance to individuals, organizations, and regulatory agencies on matters potentially affecting desert tortoises within their geographic ranges.

Both our physical and email addresses are provided above in our letterhead for your use when providing future correspondence to us. When given a choice, we prefer to receive emails for future correspondence, as mail delivered via the U.S. Postal Service may take several days to be delivered. Email is an "environmentally friendlier way" of receiving correspondence and documents rather than "snail mail."

We appreciate this opportunity to provide comments on the above-referenced project. Given the location of the proposed project in habitats known to be occupied by Mojave desert tortoise (*Gopherus agassizii*) (synonymous with Agassiz's desert tortoise), our comments include recommendations intended to enhance protection of this species and its habitat during activities authorized by the Bureau of Land Management (BLM), which we recommend be added to project terms and conditions in the authorizing document (e.g., right of way grant, etc.) as appropriate. Please accept, carefully review, and include in the relevant project file the Council's following comments and attachments for the proposed project.

The Mojave desert tortoise is among the top 50 species on the list of the world’s most endangered tortoises and freshwater turtles. The International Union for Conservation of Nature’s (IUCN) Species Survival Commission, Tortoise and Freshwater Turtle Specialist Group, now considers the Mojave desert tortoise to be Critically Endangered (Berry et al. 2021), “... based on population reduction (decreasing density), habitat loss of over 80% over three generations (90 years), including past reductions and predicted future declines, as well as the effects of disease (upper respiratory tract disease/mycoplasmosis). *Gopherus agassizii* (sensu stricto) comprises tortoises in the most well-studied 30% of the larger range; this portion of the original range has seen the most human impacts and is where the largest past population losses have been documented. A recent rigorous rangewide population reassessment of *G. agassizii* (sensu stricto) has demonstrated continued adult population and density declines of about 90% over three generations (two in the past and one ongoing) in four of the five *G. agassizii* recovery units and inadequate recruitment with decreasing percentages of juveniles in all five recovery units.”

This status, in part, prompted the Council to join Defenders of Wildlife and Desert Tortoise Preserve Committee (Defenders of Wildlife et al. 2020) to petition the California Fish and Game Commission in March 2020 to elevate the listing of the Mojave desert tortoise from threatened to endangered in California. The decision is still pending at the time of this writing.

It is apparent from our reading of the final environmental impact statement (FEIS) that neither the BLM nor USFWS have responded in a substantive way to many of our scoping comments from January 6, 2020<sup>1</sup> (Desert Tortoise Council 2020a) or our formal comments from September 28, 2020<sup>2</sup> (Desert Tortoise Council 2020b), which are provided as links and incorporated by reference in these new scoping comments.

Importantly, we asked then, and continue to ask now, how the BLM and U.S. Fish and Wildlife Service (USFWS), in conjunction with Washington County Planning Department, endeavor to undermine the implementation and steady function of the 1995 Habitat Conservation Plan (HCP) where protection of the Red Cliffs Desert Reserve (Reserve) within the Red Cliffs National Conservation Area (NCA) was the primary offsetting conservation benefit of the plan by an after-the-fact decision to allow construction of a freeway through the Reserve and NCA? We believe that the recent wildfires and continuing declines in tortoise abundance are sufficiently changed and persisting circumstances that our previous questions and concerns should be reconsidered and addressed in the SEIS.

There is no way to reverse the development that has been authorized throughout Washington County since 1996, so conservation of the Reserve cannot now be compromised by allowing development of the Northern Corridor. The 22,822 acres of tortoise habitats developed since 1996 have been offset by the conservation of the Reserve, and more than 500 tortoises [excluding those that tested positive for Upper Respiratory Tract Disease (URTD), which were not translocated] have been displaced in exchange for protecting tortoises within the Reserve. To now undermine that protection by running a freeway through the densest tortoise concentrations in the Reserve is a violation of the 1996 permit’s function, which was to provide for conservation and recovery *in perpetuity*.

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<sup>1</sup> <https://www.dropbox.com/s/hjoudfpr7qvb787/Northern%20Corridor%20Scoping%20Comments.1-6-2020.Final.pdf?dl=0>

<sup>2</sup> <https://www.dropbox.com/scl/fi/rq7ul8d8q84jkapuoqymj/Northern-Corridor-EIS-HCP.9-8-2020.pdf?rlkey=w66q5y22q2bfb2xbfrg9rlty7&dl=0>

The structure of this comment letter is to address our persisting concerns with (1) the deficiencies of the FEIS that need to be addressed in the SEIS, and (2) the inconsistencies of the remanded 10(a)(1)(B) incidental take permit that must be addressed in the SEIS.

## **Final Environmental Impact Statement**

Unless otherwise noted, the page numbers referenced below pertain to the FEIS, prepared by the BLM and USFWS, dated November 2020.

On page 1-1, we read the following statements (bold emphasis added): “The Red Cliffs NCA was designated by Congress through the Omnibus Public Land Management Act of 2009 (OPLMA) (16 U.S.C. 460www; Public Law 111-11, Title 1, Subtitle O, Section 1974). The Congressionally defined **purpose** of the 45,000-acre NCA is **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 Red Cliffs NCA and **to protect each species** that is located in the NCA and **listed as a threatened or endangered species** under the Endangered Species Act (ESA). Section 1974 states that the NCA shall be managed by the Secretary of the Interior through the BLM and that the Secretary **shall only allow uses of the NCA that the Secretary determines would further a purpose for which the NCA** was designated.” We note that there is no provision for facilitating enhanced vehicular transportation within an NCA. Nor do we see how constructing a new freeway through the NCA that has functioned to allow extensive, albeit regulated human development throughout Washington County in exchange for protection of the NCA, “furthers the purpose” of the NCA designation.

Our concern, then as it is now, is that the Northern Corridor proponents, which seem to include the BLM and USFWS, which should be neutral parties, and Washington County, which is a beneficiary party, claim that enhanced protection of the Zone 6 area will somehow offset development of the freeway through the NCA, which would not happen *but for* the Utah Department of Transportation’s (UDOT) proposed development of the freeway through the conservation area. Please be sure that the SEIS explains the apparent discrepancies between the Congressionally intended function of NCAs and how development of a freeway through the NCA would further the purpose of that designation.

Since the 46,098 acres of critical habitat within the boundaries of the Red Cliffs NCA are deemed to be too small to promote population viability (page 3-48 of the DEIS), we assert that the addition of 6,760 acres of tortoise habitat within Zone 6, which is neither critical habitat nor contiguous to the Reserve or NCA, cannot be considered a realistic mitigation to offset the avoidable impact of bisecting the existing Reserve with the Northern Corridor. Since the BLM, USFWS, and HCP Partners are obligated to perform analyses and base prudent management decisions on the results, only increased conservation management within the Reserve without the new freeway is warranted.

We appreciate that OPLMA Subtitle O, Section 1977 directs the Secretary to develop a transportation plan, but we also believe that proponents have interpreted that directive to allow consideration of alternatives that would undermine and counteract the conservation purposes of the NCA establishment. We believe that there are valid alternatives outside the NCA – not

including the BLM/UDOT preferred alternative – that would satisfy the intended function of the NCA (and HCP, discussed in the next main section below) and accomplish the intent of Subtitle O. In order to be consistent with all intents, we ask that the BLM use the SEIS to deny UDOT’s application, which the BLM adopted as its preferred alternative in the FEIS, and select an alternative that accomplishes ALL aspects of the 2009 OLPMA without undermining its intended conservation function.

Further on page 1-1, we read: “Fully evaluating UDOT’s ROW application and potential amendments to the Red Cliffs NCA RMP [Resource Management Plan] will also further the Department of the Interior’s policy goals, as stated in the Strategic Plan for Fiscal Years 2018-2022, to ‘enhance conservation stewardship whereby all levels of government and private landowners work cooperatively together in an atmosphere of mutual respect to achieve shared natural resource management goals across landscapes’ and to ‘[develop] and [maintain] strong partnerships with State, local, and private stakeholders in shared conservation stewardship.’ Clearly these policy goals have not been met, otherwise the collective environmental community would not have filed a lawsuit in response to the Secretary’s January 15, 2021 approval of the issuance of the right-of-way (ROW) through the NCA.

We read the following statements in the fifth bullet on page 1-8: “After reviewing the scope, nature, and intensity of the impacts of the fires and the relevance of these changes to the BLM and USFWS’s decisions to be made using the EIS, it was determined that the 2020 wildfires do not represent a significant new circumstance or information for the consideration of the ROW, ITP [incidental take permit] applications, Red Cliffs NCA RMP Amendments, or SGFO RMP Amendments, and a supplemental Draft EIS is not necessary.” We contended in our comments (pages 13-14 and elsewhere, Desert Tortoise Council 2020a) that fires are often associated with well-traveled roads, such as the freeway envisioned by the BLM’s preferred alternative.

The 2020 fires demonstrate that the NCA is vulnerable to wildfires, which deserves more consideration in the SEIS than was given in the FEIS, as stated above. We ask that the SEIS document tortoise density information before and after the 2020 wildfires so that we can determine independently if the 2020 fires represented a significant new circumstance. Given the extent of these wildfires, we ask that the SEIS document include if the Zone 6 management area may not be similarly vulnerable to wildfires and how the BLM plans to avoid similar impacts to that management area in addition to those listed under Fire Management in Table 2.5-1 on page 2-27.

The Council does not believe that establishing reserve-level management in Zone 6 adequately offsets the impacts of the new freeway. Rather, we believe that the area should be established as a reserve to counteract the loss and degradation of habitats resulting from the 2020 wildfires and to provide for conservation in light of the declines throughout much of the listed range. The BLM, even without the freeway, is obligated to protect desert tortoises on our public lands, particularly those lands occurring within the Red Bluff Area of Critical Environmental Concern (ACEC) that lies within the proposed Zone 6 satellite reserve. Although we support the retention of federal lands, minimizing threats of mineral extraction, developing target-specific predator controls, enhancing wildfire management, removing recreational target shooting, and removing grazing threats, as tabulated in Table 2.5-1, we do not support these new protections at the expense and loss of tortoises and tortoise habitats from the NCA, which is THE essential part of the functioning conservation strategy of the 1995 HCP.

In Desert Tortoise Council (2020a), with regards to the following statement in the Federal Register Notice (dated 12/5/2019), “Specifically, the County has proposed creating a new habitat Zone 6 in the Reserve to **provide additional desert tortoise habitat** and to offset habitat loss potentially occurring from a ROW, [bold emphasis added]” we took exception to the phrase “...to provide additional desert tortoise habitat...” These cannot be construed as “additional habitats” because they are “existing habitats,” and most importantly, portions of them are already supposed to be managed by the BLM in the Red Bluffs ACEC. Given this assumption, we ask that the SEIS provide tangible evidence missing from the FEIS that BLM has been managing the Red Bluffs ACEC for tortoise conservation and recovery in a mandated manner by addressing these questions: How many citations for noncompliance issues like cross-country vehicle travel and illegal target practice have been issued in the ACEC by BLM rangers? How many monitoring studies, including focal tortoise surveys, have been implemented by the BLM or other entities? Has there been any vertical mulching or other methods employed to close redundant routes within the Red Bluffs ACEC?

We note in the 10<sup>th</sup> bullet on page 2-3 that, “A connection to the Washington Parkway at Green Spring Drive” would be facilitated. It was our contention in 2020 (Desert Tortoise Council 2020a) and remains our current concern that the decision to develop the Washington Parkway to its current dead end configuration that happens to coincide with the continuation of the Northern Corridor freeway is an indication that UDOT and Washington County have always planned for and assumed that the Northern Corridor would be developed, and BLM/USFWS’s concurrence in all of its action alternatives through the NCA connecting to the Washington Parkway in the FEIS has not alleviated our concerns. Rather than implement their mandated responsibility to protect natural habitats and recover tortoises, BLM and USFWS have chosen to support development in a conservation area that is obligated by the 1995 HCP to protect those habitats.

At the top of page 2-31, we read the following: “Under Alternative 1, the BLM would deny UDOT’s application for a ROW grant across the Red Cliffs NCA for the Northern Corridor, and the USFWS **would deny Washington County’s application for an ITP** [bold emphasis added].” We made this point in our comments on the DEIS (Desert Tortoise Council 2020b), which was not addressed in the FEIS, that BLM and USFWS have failed to explain why the ITP must be denied if the freeway is denied. These are only connected actions because of the BLM’s planning process has contrived to link the two together. In our previous comments and again in these scoping comments, we contend that Washington County may pursue Section 10 take authorization in the absence of the Northern Corridor freeway. Somewhere in the planning process, the consortium of proponents, now including the BLM and USFWS, have chosen to link these entirely separate actions together. The SEIS needs to clarify what the FEIS did not: Why can’t Washington County apply for 10a permit renewal AND the BLM deny UDOT’s ROW application? Why are BLM and USFWS obligated to approve both actions and not only 10 permit renewal minus freeway construction?

This concern was expressed as follows in Desert Tortoise Council (2020b): “The DEIS (see Attachment A for a list of acronyms used in our letter) [and now the FEIS] has failed to substantiate or demonstrate a clear nexus between Washington County pursuing the HCP/ITP and UDOT’s proposal for the Northern Corridor. The ITP has functioned for 24 years, between 1996 and 2020, and only provisionally since 2016. Since the USFWS would issue the 10a permit, not the BLM, the documents have failed to convince us that the BLM’s No Action Alternative (a NEPA requirement) necessarily precludes USFWS from issuing the ITP (a FESA requirement).”

“The trigger to revise the HCP and reissue the ITP is the 2016 expiration date, not UDOT’s desire to develop the Northern Corridor. In the absence of UDOT’s proposal, the HCP could have been revised and the ITP reissued in response to the expiration date, and 66,301 acres of occupied and potential tortoise habitats could have been identified as available for development. Linking the reissuance of the ITP to the Northern Corridor is contrived to create a fatally flawed relationship between two unrelated actions, where ostensibly one action cannot occur but for the other, which is neither explained nor clearly supported in the DEIS’ [nor the FEIS’] analyses (Desert Tortoise Council 2020b).”

On page 3-5, we read: “The best available data were used in the preparation of the analysis contained in the [F]EIS. The data have been gathered from a variety of sources, including the BLM and the USFWS staff, other agencies, field investigations completed to support the analysis, published and unpublished reports, databases, and websites.” Please be sure that the SEIS provides all additional data collected since publication of the FEIS, including new surveys in areas affected by wildfires. We would like the SEIS to confirm or refute the following statement on page 3-80 of the FEIS based on any, particularly post-2020-fire, new data: “This [kernel density data] reveals there is an important desert tortoise population cluster located within the path of the T-Bone Mesa Alignment, UDOT Application Alignment, and Southern Alignment Alternatives within the Reserve. Map 3.5-1 shows this clustering within Zone 3. **This may be the most important high-density cluster of desert tortoises in the recovery unit** (USFWS 2020a) [bold emphasis added].”

We note on page 3-51, the following statements: “Surveys have identified raven predation on hatchling and juvenile Mojave desert tortoises, including two individuals in 2015 (Washington County 2015), eight in 2017 (Washington County 2017a), four in 2018 (Washington County 2018b), and fourteen in 2019 (Washington County 2019c) [all cited references are given in the FEIS].” Please be sure that the SEIS publishes the available raven predation data observed since 2019.

The following statements are taken from page 5-53: “Mojave desert tortoise within the Reserve have both URTD and shell disease (UDWR 2018). Shell disease was observed in relatively high-density Mojave desert tortoise areas. In addition, URTD has been observed throughout the Reserve, and the presence of desert tortoise with URTD clinical signs has increased since 2013 (UDWR 2018).” By “Reserve,” we assume BLM is referring to Zone 3 areas within the NCA. There is no discussion in this section about the prevalence of URTD in Zone 6 areas. We ask that the SEIS amend this section to divulge what is or is not known about the incidence of URTD in the proposed Zone 6 satellite reserve. We are concerned about the stated intent to release translocated tortoises into the Zone 6 area and the potential to introduce URTD-positive individuals that are not detected in mandatory disease screening procedures.

As with earlier comments, we feel that the decision to translocate tortoises to Zone 6, which has yet to be codified as a satellite reserve to Red Cliffs Reserve, rather than Zone 4, which has been the acceptable method under the existing HCP/ITP for decades, is pre-decisional and demonstrates that, regardless of public input, the regulatory agencies and other local planning entities have already decided to construct the Northern Corridor despite any new evidence the public can provide. For example, it is our understanding that results of recent surveys, which we assume will be included in the SEIS, have revealed even more tortoises in Zone 6 than previously estimated. If this is true, does BLM still plan to translocate tortoises into Zone 6 rather than Zone 4, which is already functioning to accommodate the importation of tortoises into that area?

We read the following statement on page 3-54: “Surveys have not been completed for the Turkey Farm Road fire or the Lava Ridge fire as of the publication of this document.” Have these or any other areas been surveyed since publication of the FEIS? Please address this question in the SEIS. If, “Future surveys may be done to refine the abundance estimate for proposed Zone 6,” cited at the top of page 3-63 have occurred, please include those results as well.

Throughout the FEIS, we read that the BLM has opted to consider indirect impacts out to a 508-meter buffer, as follows on page 3-71: “The 508-meter buffer is based on the annual home range size of an adult male Mojave desert tortoise of 200 acres (Franks et al. 2011, USFWS 2011a). The annual home range was applied because of the short-term indirect effects of noise, vibration, and other construction-related disturbances, as well as the continued noise and vibrations from traffic and maintenance of the road.” We noted in our comment letter (Desert Tortoise Council 2020a, page 10) that von Seckendorff Hoff and Marlow (2002) documented indirect impacts that degrade habitats out to 4,000 meters from the roadside. In the SEIS, please provide the scientific rationale for restricting indirect impacts to the home range of a male tortoise, which we judge to be arbitrary, when there is documented evidence of a much wider indirect impact area associated with roads, alone.

At the top of page 13 (Desert Tortoise Council 2020a), we specifically asked that, given our understanding that both BLM and USFWS have in previous planning efforts denied ROW authorization for the Northern Corridor, that the FEIS fully disclose all previous decisions denying development of the Northern Corridor and the reasons for those decisions. We reiterate this request, and ask that it be addressed in the SEIS.

### **Habitat Conservation Plan – 10(a)(1)(b) Considerations**

Compliance Issues for the Development of a Habitat Conservation Plan (HCP) and Issuance of an ITP under the Federal Endangered Species Act.

Clarification of terms - In the comments below, we have used the following terms to distinguish among the three HCPs:

- 1995 HCP refers to the multi-species HCP prepared for Washington County;
- 2020 HCP refers to the HCP for Washington County, Utah Restated and Amended, October 2020; and,
- draft amended HCP refers to the HCP to be developed as a result of the current public scoping period.

#### **1. Explain changes in HCP/ITP policies since issuance of the ITP to Washington County in**

**1996**: The USFWS issued a multi-species Incidental Take Permit (ITP) to Washington County, Utah in 1996. This ITP was issued before the USFWS and National Marine Fisheries Service (NMFS) issued the first Habitat Conservation Planning and Incidental Take Permit Processing Handbook (HCP Handbook) dated November 4, 1996 and issued in final form on December 2, 1996 (61 *Federal Register* 63854). The 1996 ITP was issued before the USFWS and NMFS codified the “No Surprises” assurances as a final rule, 50 CFR 17.22(b)(5), 17.32(b)(5) and 222.307(g), on February 23, 1998 (63 *FR* 8859). It was issued before the USFWS and NMFS issued the Five-Point Policy (65 *FR* 35242) as a final addendum to the 1996 HCP Handbook, and the Habitat Conservation Planning and Incidental Take Permit Processing Handbook. December 21, 2016 by the USFWS and NMFS.

The draft amended HCP should explain these changes to requirements of an HCP since the 1995 HCP and 1996 ITP were implemented. The draft amended HCP should also explain that “once the amendments associated with a permit renewal are finalized, No Surprises assurances would then apply to the amended HCP and permit for the duration of the renewal period” (USFWS and NMFS 2016) and not beyond that permit duration.

On page 14 of our scoping comment letter (Desert Tortoise Council 2020a), we asked that the FEIS answer the following questions, which remain unanswered: “How many tortoises have been displaced and how many acres of tortoise-occupied and unoccupied habitats have been developed under the existing HCP/ITP? What are the take limits of tortoises and the number of acres that were authorized to be lost under the HCP/ITP? After revealing these statistics, please show a frequency distribution of the numbers of tortoises taken and the numbers of acres developed on a yearly basis, beginning in 1996 and extending to 2023. Are there certain years in which development has proceeded at elevated rates compared to years with relatively little development? Is there a documented elevated rate in the past 10 years, for example, that would justify the need to increase either the tortoise take limit or level of habitat loss? Were relatively more tortoises displaced in any given year or periods thereof? For example, has development in the past 10 years displaced as many tortoises as were displaced in the first 10 years of take authorization?”

For the tortoise, in the draft amended HCP please provide data on the number of tortoises and acres where covered activities occurred under the 1996 HCP (both were named in the ITP), locations of the covered activities, the number of acres acquired and managed for the conservation of the tortoise at a reserve level using HCP funds and their locations, the monitoring required, the monitoring implemented and its results, and the changes in management/adaptive management implemented in response to the monitoring results. Thus, the draft amended HCP should provide a clear connection between the information in the 1995 HCP, 1996 ITP, and the draft amended HCP.

**2. Determine the success of implementation of the 1995 HCP with respect to conserving the tortoise to determine what is needed for success for the draft amended HCP:** According to the Washington County HCP (2020), “Washington County, Utah, (the County) prepared a Habitat Conservation Plan (HCP) in 1995 that provided for the conservation of the Upper Virgin River population of the Mojave desert tortoise (*Gopherus agassizii*).”

Between 1998 and 2003 there was a 41% reduction in tortoise numbers within the Reserve (McLuckie et al. 2012) largely due to fire; depredation by common ravens is increasing within the Reserve; there are problem areas associated with infestations of non-native plants; there continue to be documented cases of poaching within the Reserve; and there continue to be mortalities along roads within the Reserve despite fencing and other protective measures. And, importantly, these impacts have occurred despite reserve-level management by the BLM and Washington County. We know that 14,624 acres of habitats have recently burned on the Reserve, including 25 percent of the tortoise critical habitat therein (McLuckie et al. 2012). Raven depredation, introducing weed species, poaching, and wildfire are indirect impacts that are likely to increase in response to Northern Corridor construction, and must be analyzed and mitigations identified in NEPA documents.



The 1995 HCP relied on the government agencies providing reserve level management for the tortoise in the Reserve. The draft amended HCP should provide information on the activities since 1996 that BLM and the State of Utah implemented to manage for the tortoise in the Reserve, management actions that BLM and the State of Utah have approved or allowed that adversely affect the tortoise/tortoise habitat, monitoring and enforcement conducted, changes in the types, frequency and locations of threats to tortoises in the Reserve since the 1996 ITP was issued, and changes in the tortoise population and habitat quantity and quality in the Reserve and Zone 6 since the 1996 ITP was issued. Those management actions that were paid for by HCP funding should be identified as well as any changes to their funding in the draft amended HCP.

The draft amended HCP should provide data on the success in providing for the conservation of the Upper Virgin River population of the tortoise from implementation of the 1995 HCP. Results that would demonstrate success in providing for the conservation of the tortoise would include (1) increases in tortoise numbers and densities from natural recruitment; (2) increased diversity of population age structure; (3) increases in acres protected and managed at a reserve level for the tortoise (excluding lands set aside by Congressional action and purchased with Land and Water Conservation Funds); (4) arrangement of protected habitats such that they are connected/do not impede tortoise movement, minimize edge effects; and (5) increases in habitat quality especially in providing native nutritious forage plants required by tortoises for survival, growth/recruitment, and reproduction. If these data indicate that past management actions of the conservation lands have not been successful, then other conservation measures should be added to/required in the HCP to provide for the conservation of the tortoise. Conservation measures should be science-based and have a demonstrated record of successful results for the tortoise.

**3. Comply with Requirements for Issuance of Incidental Take Permits listed in the ESA and Explained in the 2016 HCP Handbook:** Section 10 (a)(2) of the Federal Endangered Species Act (FESA) requires that the applicant will submit a conservation plan with certain requirements (3.a. through 3.f below). The USFWS should ensure that the draft amended HCP complies with the Habitat Conservation Planning and Incidental Take Permit Processing Handbook (HCP Handbook) (USFWS and NMFS 2016). The HCP Handbook includes information on how to comply with regulations and policies on implementation of Section 10(a)(2) of the FESA, implementing agreements, findings and recommendations, Section 7 consultation, and other relevant environmental legislation.

*3.a. “the impact which will likely result from such taking”* – Impacts of the taking is defined as an analysis of the impact that will likely result from the taking of the covered species. The impact of the taking may have population or species-level effects are substantially greater than just the number of individuals or acres of species habitat (USFWS and NMFS 2016). For the tortoise, the impact of the taking will have population and species level effects much greater than just the acres of the species’ habitat lost to covered activities.

In the draft amended HCP, please explain how the USFWS calculated the impacts of the taking of the tortoise. This would include direct, indirect, and cumulative impacts to the tortoise that likely resulted in take in the Reserve, Upper Virgin River Recovery Unit (UVRRU), and rangewide for the tortoise.

To begin this process, the HCP needs to clearly describe the covered activities that would constitute take (e.g., grading; mowing; blading; fire; herbicide use; activities that result in establishment or increases of invasive plant species abundance, subsidized predation, loss of forage needed to meet nutritional requirements, etc.). It should also include mortality, injury, capture, etc. What would be the extent of that “take,” that is, the impacts of the taking with respect to location where the covered activity is to occur? Is it larger than the project footprint and if so, by how much? What is it for a linear project (e.g., road, pipeline, etc.) that has a larger edge effect (and greater area of adverse impacts) than a project such as a house, or strip mall.

One example of indirect impacts of the taking with respect to development projects is it would provide a subsidized food source for common ravens. Construction projects, including road construction, in/near the Reserve would kill or injure fossorial animals that would become a human subsidized food source for common ravens. This would increase their numbers in the area of the Reserve and predation pressure on the tortoise. The operation of the new roads through/near undeveloped lands would result in ongoing road kill. Although the tortoise mitigation for construction projects including roads may be fenced to exclude tortoises, it would not exclude other wildlife species, and we note in the FEIS that tortoises continue to be killed inside the Reserve despite tortoise fences. The roads would act as a sink for the various wildlife species in the nearby undeveloped land and become a subsidized food source of roadkill and road injury for common ravens. This ongoing food subsidy would result in two forms of increased predation by common ravens to tortoises (Holcomb et al.2021), including “hyper-predation” from breeding ravens and “spillover-predation” from non-breeding ravens (Kristan and Boarman 2003).

Please analyze this and the many other indirect impacts of the taking of the tortoise from the construction, use, and operations and maintenance of all covered activities in the draft amended HCP.

Tortoises are not distributed uniformly within their habitat; they do not always breed, lay eggs, forage, or shelter in the same area; their needs for connectivity have recently been described (Averill-Murray et al. 2021). Please explain in the draft amended HCP how the location of areas authorized for covered activities were considered to determine their function(s) in the impacts of the taking of the tortoise. When conducting this complex analysis, please use current information on tortoise numbers and densities in the Reserve and UVRRU; relevant scientific information on population ecology, conservation biology, climate change, and spatial analysis; and incorporate the expertise of university researchers on the Mojave desert tortoise, tortoise habitat, conservation biology, population ecology, and the Desert Tortoise Recovery Office.

As part of this analysis, the 2020 HCP applied to use unrealized take from the 1995 HCP. In the 1995 HCP, the number of tortoises taken was counting but the counting was incomplete. In addition, the 2020 HCP stated “the takings did not outpace the conservation actions.” We remind the County that the number of tortoises that were directly taken (e.g., killed, translocated), which is what the County provided in the 2020 HCP, are not the same as the impacts of the taking; this number would be higher. The draft amended HCP should revise its calculations of the impacts of the taking from implementation of the 1995 HCP, and describe this revised methodology used to comply with the statute. We suggest using the method described in the 2016 HCP Handbook (USFWS and NMFS 2016). For another example of how the impacts of the taking differ from the taking, please see the scenario under #5 below.

3.b. *“the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking” –*

To meet this issuance criterion, the applicant must:

1. Estimate the type and amount of take expected from covered activities, and the impacts of such taking on the species and/or its habitat;
2. determine from a biological perspective how conservation measures in the HCP will minimize the impacts of the taking on the species’ status and/or its habitat; and
3. determine from a biological perspective how conservation measures in the HCP will mitigate the remaining impact of the taking on the species’ status and/or its habitat.

Using the analyses in steps 1-3 above, the applicant must show that their HCP will minimize and mitigate the impacts of the taking to the maximum extent practicable because either:

- The combination of minimization and mitigation in the HCP leaves no remaining impacts of the taking on the species that could be further mitigated or minimized, that is all impacts will be fully offset.

OR

- If the applicant cannot fully offset the impacts of the taking, they must demonstrate that it is not practicable to carry out any additional minimization or mitigation (USFWS and NMFS 2016).

The 2020 HCP contained the following mitigation information – To mitigate the loss of these 66,301 acres, the HCP would **seek** (bold emphasis added) to acquire “665 acres of private land and 6,426 acres of SITLA-owned land (7,091 acres total)” that remain within the Reserve boundary from willing sellers.

What other mitigation would be required if this seeking did not result in the successful acquisition?

The HCP should provide documentation on how this mitigation fully offsets the impacts of the taking from the development of 66,000+ acres of tortoise habitat, that is, all tortoise habitat in Washington County that is not on federal or tribal lands that would be permanently developed.

The conservation program for the 1996 and 2020 HCPs relied on the management of lands inside the Reserve boundary to mitigate the impacts of the taking, and assumed this mitigation to be in perpetuity with no legal assurances. Most of these lands are under BLM and State of Utah management. Consequently, the applicant has no control over how these lands are managed or their funding. The three proposed Northern Corridor action alternatives through the Reserve being noteworthy examples.

The courts have found that the conservation program including the mitigation lands must be under the control of the applicant. For example, in one court case, Klamath-Siskiyou Wildlands Center et al. v. NOAA et al., Case No. 13-cv-03717 (2015 U.S. Dist. LEXIS 44872 & 2015 U.S. Dist. LEXIS 70622) (N.D. Cal. 2015) (Challenge to Fruit Growers Supply Co. Habitat Conservation Plan and Incidental Take Permits), the court held that the USFWS improperly relied on mitigation provided by the U.S. Forest Service in making its “maximum extent practicable” (MEP) finding

under FESA Section 10(a)(2)(B)(ii) in violation of the requirement that only mitigation and other conservation measures provided by the applicant may be considered in making the finding. The court held that USFWS violated that section by “crediting” Fruit Growers Supply with mitigation provided by the Forest Service for the Northern spotted owl. Because USFWS took into account the conservation value provided by intermingled Forest Service lands in its MEP analysis, the court faulted the USFWS for relying on Forest Service lands as mitigation under the HCP. Please ensure that the conservation program for the HCP occurs on land that the applicant has management authority over.

Because the loss of tortoise habitat would be permanent from the covered activities, any lands considered as mitigation for the impacts of the taking from covered activities including translocation lands should be managed for the tortoise in perpetuity. This designation should be assured by a legal instrument such as a permanent conservation easement. Special management designation of federal lands such as Zone 6 proposed in the 2020 HCP are not permanent designations, as they can be changed with the next Resources Management Plan amendment. In addition, as demonstrated by BLM’s approval of the development of lands acquired using Land and Water Conservation Funds, these lands are not protected from future development even though they were acquired to help conserve the tortoise. Until BLM and other land management agencies have the ability to place permanent conservation easements or similar protections on lands they manage, mitigation lands managed by these agencies should not be considered as offsetting the impacts of taking because the mitigation may be temporary and subject to multiple uses.

The HCP should provide documentation on why additional minimization and mitigation cannot be implemented. The courts have noted that USFWS should not rely on the applicant’s word that additional minimization and mitigation is not practicable.

### **HCP Conservation Program**

Biological goals, objectives, and conservation measures – These identify and carry out the minimization and mitigation that the applicant will implement.

The biological objectives in the draft amended HCP should be specific, measurable, achievable (not experimental but proven to be effective/successful), result-oriented, and time-fixed. The effects of climate change now and likely effects in the future should be added when developing biological goals, objectives, and conservation measures.

The HCP should provide specific requirements or protocols on how the 200 acres will be used within the Reserve (e.g., rights-of-ways, etc.) including access; timing; methods; measures to avoid, minimize, and mitigate impacts; effectiveness and compliance monitoring conducted by a third party not affiliated with the entities responsible for the development/use/maintenance of this acreage; and adaptive management. In addition, these entities should provide the funding for these activities and meet the funding requirements imposed on the applicant. Funded activities would include but are not limited to effectively preventing public access to access roads and ROW acreage; promptly removing invasive nonnative plants; constructing, regularly monitoring, and promptly maintaining tortoise exclusion fencing around utility facilities; and restoring tortoise habitat in areas that will receive temporary disturbance.

Habitat connectivity should be a focus of the biological goals, objectives, and conservation measures. This focus is because the Red Cliffs Reserve is the smallest of the Tortoise Conservation Areas (TCAs). To provide for the effective long-term conservation of the tortoise, this small TCA must be intensively managed for the tortoise to ensure genetic diversity and sufficient population size to minimize extirpation from genetic, demographic, and environmental stochastic events (USFWS 1994a). Currently, the various zones in the Reserve are not well connected, nor is there any assurance in the 2020 HCP of implementation of future conservation measures to provide for effective connectivity among Zones 1 through 5 in the Reserve and between the Reserve and Zone 6. Please provide information in the draft amended HCP on the actions that were implemented under the 1995 HCP that provide for increased connectivity among the tortoise habitats in the Reserve, and the additional connectivity conservation measures that the draft amended HCP would implement to provide this connectivity among all lands that are managed for the tortoise in the UVRU.

In addition, please explain in the draft amended HCP the analysis conducted to ensure that implementation of the HCP would not impede the connectivity among the remaining Mojave desert tortoises and tortoise habitat in Washington County, and linkage habitats needed to move in response to climate change (i.e., to the west to the Beaver Dam Slope TCA in the Northeastern Mojave Recovery Unit, to the east to tortoises near Zion National Park, and to the north). Linkage habitats should be analyzed considering the following – “managing the entire remaining matrix of desert tortoise habitat for permeability may be better than delineating fixed corridors. These concepts apply, especially given uncertainty about long-term condition of habitat, within and outside of TCAs under a changing climate” (Averill-Murray et al. 2021).

Sources of direct and indirect mortality should be a focus of the biological goals, objectives, and conservation measures in the draft amended HCP. For example, tortoise habitat in the Reserve has been severely degraded or destroyed and tortoises have been killed because of human-caused activities (e.g., proliferation of invasive plant species; increase in size, intensity, and frequency of fires; vehicular traffic). Increased predation by common ravens has been identified as a growing source of mortality. Tortoise mortality on roads in the Reserve not only continues to occur but recently has increased.

The draft amended HCP should include a timetable for completing Reserve acquisitions (Washington County Commission 2020) and other avoidance, mitigation, and mitigation measures so they are commensurate with impacts of the taking of the tortoise.

HCPs with long permit durations “require robust and scientifically sound monitoring and adaptive management provisions to address uncertainties that increase with the duration” (USFWS and NMFS 2016). Please include monitoring and adaptive management plans in the draft amended HCP so it complies with this requirement.

To manage and monitor the lands being conserved for the tortoise, funds are needed to ensure they maintain their biological value. Conserved lands should either have their own management plans or follow the HCP if it is specific enough. We remind USFWS that permit applicants must ensure sufficient control of the land considered as mitigation to achieve mitigation objectives. Please demonstrate how Washington County has sufficient control over the mitigation lands (managed by BLM and Utah State Parks) to implement and achieve the biological goals, objectives, and implement the conservation measures in the draft amended HCP.

The draft amended HCP should document and analyze how past translocation of tortoises removed from lands with covered activities is affecting the population density, numbers, and reproduction for the recipient population of tortoises. Translocation is a form of mitigation. We presume that monitoring of the recipient populations has continuously occurred to determine changes in these population parameters including genetics (please see Mulder et al. 2017). If past translocation efforts are not resulting in a benefit to the recipient population, translocation plans should be modified and implemented. We suggest consulting with university researchers with expertise on tortoise genetics and translocation and the Desert Tortoise Recovery Office in conducting this analysis of effectiveness.

What is BLM's record for managing for the tortoise/tortoise habitat in the Red Cliffs NCA? What is the Utah State Parks record for managing the tortoise/tortoise habitat in the Red Cliffs NCA? Have they managed effectively for native vegetation including annual forbs and perennial grasses, removed invasives and prohibited activities that introduce and spread nonnative species? Have they fenced roads and conducted timely maintenance of the fences to exclude tortoises? Have they effectively closed unnecessary roads, effectively enforced off-highway vehicle restrictions, etc.? This information should be provided in the draft amended HCP along with the biological goals, objectives, and conservation measures that would be implemented on BLM and State Parks lands.

Effectiveness Monitoring and Compliance Monitoring – “Monitoring is a mandatory element of all HCPs (See 50 CFR 17.22, 17.32, and 222.307). When properly designed and implemented, monitoring programs for HCPs should provide the information necessary to assess compliance and project impacts, and verify progress toward the biological goals and objectives. Monitoring also provides the scientific data necessary to evaluate the success of the HCP's operating conservation programs with respect to the possible use of those strategies in future HCPs or other programs that contribute to the conservation of species and their habitat.” (USFWS and NMFS 2016).

What are the monitoring requirements under the draft amended HCP? For example, we understand that Utah Division of Wildlife Resources (UDWR) is no longer receiving funds to monitor the tortoise population in some of the zones in the Reserve. If this effectiveness monitoring is not occurring regularly under the draft amended HCP, how does the absence of this part of effectiveness monitoring meet ITP issuance criteria? The draft amended HCP should provide a table that itemizes the impacts of the taking, the conservation measures that would fully offset the impacts of the taking, and the effectiveness and compliance monitoring actions that would be implemented for all conservation measures.

Changed Circumstances – If the draft amended HCP relies heavily on improvements to the tortoise population and habitats in the Reserve [we assume this because the 2020 HCP identified development of the remaining tortoise habitat in Washington County (i.e., more than 60,000 acres of tortoise habitat on non-federal lands with acquisition of about 10 percent of this area for conservation)], the changed circumstances section of the HCP needs to include any changes that adversely affect the tortoise population and/or tortoise habitat in this conservation area. This means that any habitat degradation (e.g., invasive plants, etc.), habitat loss (e.g., fire, surface disturbance, etc.), increases in mortality (e.g., predation by wildlife or humans, pathogens, genetic inbreeding, etc.), impeding/disrupting connectivity, etc., that occur as a result of direct or indirect human actions, whether authorized or not, must be included in the changed circumstances section of the HCP. Absent this assurance, Washington County would be authorized to develop all remaining tortoise habitat on non-federal lands, and the tortoise is placed on a trajectory of certain extirpation in the Reserve. A draft amended HCP with these covered activities and this limited conservation program would not be an adequate conservation plan for the tortoise.

Although the 2020 HCP proposed to add Zone 6 as part of the conservation program, it does not have the same assurances of management for the conservation of the tortoise/tortoise habitat as the Reserve, which itself, is threatened by the agency-endorsed Northern Corridor. For example, its size, location, unknown information on tortoise population demographics, and allowance for an increase of certain human activities (particularly organized recreational vehicle activities) that adversely affect the quantity and quality of tortoise habitat would provide little to no long-term assurance for the survival and recovery of the tortoise in the UVRRU.

Please ensure the Changed Circumstance section on the HCP includes an explanation of this heavy reliance on improvements to the tortoise population and tortoise habitat in the Reserve, and identifies that any authorized or unauthorized actions that result in a decline in the quantity, quality, connectivity of tortoises and configuration of tortoise habitat would be considered a changed circumstance.

Exclusion of conservation measures funded by federal, State and local agencies – The Anti-deficiency Act prohibits federal agencies from incurring obligations or making expenditures (outlays) in excess of amounts available in appropriations or funds (31 U.S.C. § 1341 (a)(1)). Agencies of the State of Utah are likewise enjoined in Utah Code § 63G-6a-1204 from entering into contracts or incurring obligations that commit funding beyond that appropriated. Therefore, federal and State agency support of the conservation measures in the HCP is contingent on having sufficient funding over the term of the HCP. Because this funding is not assured, the HCP should not include the conservation measures these agencies *may* implement as part of the conservation program of the HCP.

All plans (public education, enforcement, habitat restoration, recreation, etc.) that may be part of the HCP to avoid, minimize, and mitigate the impacts of the taking should be included in the HCP, not merely referred to in the HCP.

*3.c. “the applicant will ensure that adequate funding for the plan will be provided”* – This has been the area that the USFWS has the least experience in ensuring as it not a biological requirement. Frequently, the funding for implementation of the HCP’s conservation program is underestimated by the applicant especially when there is a set fee for implementing covered activities.

The USFWS usually relies on the applicant to calculate costs of the conservation program and provide the sources of funding to cover those costs. For the 1996 HCP, the per acre fee is based on the estimated costs submitted by the applicant. The HCP handbook direct the USFWS to “conduct an independent review” of the funding assurances. Because the USFWS lacks the expertise to conduct such a review (i.e., no long-term financial planners, or long-term project planners with financial expertise on staff), the USFWS should use a neutral third party with expertise in financial planning of long-term projects to determine whether the funding will be adequate to successfully implement the biological goals and objectives, conservation measures, effectiveness and compliance monitoring, adaptive management, and changed circumstances of the finalized Red Cliffs HCP and ITP. This information should be added to the table mentioned above that tracks the impacts of the taking, all conservation measures to be implemented to fully offset the impacts of the taking, the effectiveness and compliance monitoring actions, etc. Please include this table in the draft amended HCP so the public may review this information to determine whether the funding amount proposed is adequate for the 25+ year permit term.

For example, for dealing with changed circumstances, the HCP should discuss specific financial remedies by including a reasonable estimate with a buffer of their cost and a description of how they will be funded. Applicants must build funding strategies with the long term in mind to ensure sufficient resources are available to respond to changing climates, economic changes, and **uncertainty in management effectiveness** (bold emphasis added), among other things. Long-term HCPs should build rising costs into their estimates. For plans that collect fees, one approach would be to establish a process in the HCP with regular adjustments so the fees keep pace with costs of the conservation program (USFWS and NMFS 2016).

Because of the 2020 HCP's requested 25-year permit term and the economic history of substantial inflation occurring at least every 20 years, the funding (e.g., development fee, annual tax, etc.) should not be a fixed amount. It should be adjusted annually using an appropriate economic index for the goods and services identified as the conservation measures and monitoring to be implemented (e.g., construction materials, construction equipment, construction labor, labor for scientific monitoring, equipment for scientific monitoring, etc.).

Additional assurances of funding are needed when there is a risk the applicant will complete their development project without completing their functional mitigation requirements. The 2020 HCP was for a 25-year permit term. If the conservation program includes restoration of habitat degraded/destroyed by human activities so it provides the functions and values needed by tortoises for feeding, breeding, and shelter, this restoration period can take several decades or longer (Abella 2010) – much longer than the requested permit term. Funding of the HCP should include this and similar discrepancies in the timelines between the permit term and the completion of effective conservation measures. Stay-ahead provisions, where conservation occurs or where fees are collected before impacts, should be implemented to ensure minimization and mitigation measures occur as planned. This method should be described and included in the HCP.

The Washington County HCP is a development HCP. “The conservation land is assembled into a preserve with management requirements into perpetuity. Cost of management, both short and long-term, must be estimated in the plan. Applicants should identify costs born during development activities to minimize effects (e.g., exclusion fencing) separately from costs associated with those requiring additional funding, such as acquisition of mitigation land and associated restoration, management, and monitoring costs. The latter category requires additional assurances of funding” (USFWS and NMFS 2016). Please ensure that these requirements are included in the draft amended HCP.

There are likely to be indirect effects attributable to implementation of the proposed HCP covered activities. One example is fragmentation from development: development may take place later that could impact the connectivity of the tortoise population in the UVRRU in a substantial way because that effect is unknown at this time. The HCP should incorporate contingency measures that address how those impacts will be remediated and provide the funding assurances for such measures.

Ongoing management of the Reserve and Zone 6 will outlast the permit term. Consequently, long term management, including funding for it, must be described and in place when the permit is issued.



The USFWS should receive legally binding assurances from Washington County that annual appropriations to sufficiently fund the draft amended HCP will occur.

Funding for effectiveness monitoring – We understand that Utah Division of Wildlife Resources (UDWR) is no longer receiving funds to monitor the tortoise population in some of the zones in the Reserve under the 2020 amended HCP. If this effectiveness monitoring is not being funded by the applicant, how does the absence of funding this part of effectiveness monitoring meeting ITP issuance criteria? In addition, we understand that other sources of funding for conservation measures (e.g., construction/maintenance of tortoise exclusion fencing in the Reserve, etc.) has been removed from the 2020 HCP. Please include these funding assurances in the draft amended HCP.

*3.d. “what alternative actions to such taking the applicant considered and the reasons why such alternatives are not being utilized” –*

Because this is a draft amended HCP from Washington County, the County should consider setting aside more private lands for conservation of the tortoise and less land for development. These lands should connect with the Reserve. When designed properly, this alternative would result in less take. It would increase the likelihood of success of the conservation of the smallest population of tortoises and TCA in the range of the species. It would reduce the impacts of climate change and genetic, demographic, and environmental stochasticity. It would improve connectivity of populations within the UVRU and connectivity with the adjacent Northeastern Recovery Unit. The County should not rely on federal lands and tribal lands for the survival and recovery of the tortoise in the UVRU. One possibility would be to expand Zone 6 to encompass the entire Red Bluffs ACEC so it is of sufficient size to provide long-term conservation of the tortoise/tortoise habitat (please see conservation biology’s principles of reserve design in USFWS 1994a).

*3.e. “the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild” –*

Although the following factors are used to determine whether unforeseen circumstances would occur for the draft amended HCP, they should be used to assess whether the taking will appreciably reduce the likelihood of survival and recovery of the tortoise in the wild.

The USFWS “shall consider, but not be limited to, the following factors (50 CFR 17.22(b)(5)(iii)(C) and 17.32(b)(5)(iii)(C); 50 CFR 222.307(g)(3)(iii)):

1. The size of the current range of the affected species;
2. The percentage of the range adversely affected by the covered activities;
3. The percentage of the range that has been conserved by the HCP;
4. The ecological significance of that portion of the range affected by the HCP;
5. The level of knowledge about the affected species and the degree of specificity of the conservation program for that species under the HCP; and
6. Whether failure to adopt additional conservation measures would appreciably reduce the likelihood of survival and recovery of the species in the wild.”

For the tortoise, these six factors would be modified to address the tortoise in the UVRRU. This modification is because the recovery of the tortoise can only be achieved if it is recovered in all five recovery units (USFWS 2011). The USFWS should work with the applicant to ensure that these factors are considered when developing the draft amended HCP including using all relevant and current scientific information. The answers to these factors should be provided in the HCP to demonstrate compliance with Section 10(a)(2) of the FESA.

The USFWS should consult with experts in the fields of desert tortoise biology, ecology, population ecology, conservation biology etc. Their concerns and recommendations should be provided to the public and included in the USFWS's analysis. This approach would represent the best available biological information and provide an unbiased forum for making this determination. We recommend that most researchers should be university researchers that are not affiliated with federal, state, and local agencies that are involved with making this decision or would be affected by it. Employees/affiliates of these agencies directly involved with the decision-making process have a perceived or stronger obligation to not disagree with an agency's position. In the federal government, sister agencies do not contradict each other (e.g., USFWS does not contradict BLM).

*3.f. "such other measures that the Secretary may require as being necessary or appropriate for purposes of the plan" –*

"Other measures" include such things as ensuring the covered activities avoid jeopardy of listed plant species, destruction or adverse modification of designated critical habitat, jeopardy or take of listed wildlife species not covered by the HCP or incidental take permit, and avoid take of migratory birds or eagles. The USFWS should work closely with the applicant to design an HCP that includes these measures. In addition, we recommend coordinating with the Desert Tortoise Recovery Office to determine the measures they deem appropriate to include (e.g., specific research/studies to complement the HCP strategy or contributing funds beyond those needed for the HCP's adaptive management program).

In summary, the courts have said that the FESA requirement is that habitat conservation plans "conserve" listed species. The draft amended HCP should prove that it is doing this.

**4. Complying with Section 7 Consultation** –: "[F]ESA section 7 must consider the range-wide scale for the tortoise, because under section 7 the USFWS analyzes effects to the tortoise and designated critical habitat, to ensure that the action is not likely to jeopardize the species' continued existence or destroy or adversely modify critical habitat."

*4a. "Jeopardize the continued existence" of a species is defined as "to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild..." –*

For the tortoise to achieve recovery, it must be recovered in all five recovery units (USFWS 2011). Please demonstrate with supporting scientific data, how after consideration of full implementation of the covered activities as described in the HCP (including direct, indirect, and cumulative effects), and implementation of proposed conservation measures proven effective, the implementation of the HCP would not preclude the survival **and** recovery of the tortoise in the UVRRU. We strongly recommend coordinating with the Desert Tortoise Recovery Office and university researchers with current knowledge and expertise on the tortoise, population ecology and viability, and conservation biology in preparing the biological opinion for the HCP.

*4.b. Destruction or adverse modification of designated critical habitat is defined as “a direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival and recovery of a listed species. Such alterations include, but are not limited to, alterations adversely modifying any of those physical or biological features that were the basis for determining the habitat to be critical” –*

How have fires, human-caused fragmentation, and other human activities in and near the Reserve affected the ability of this critical habitat unit to function? Please refer to the final rule that designated critical habitat for the tortoise (USFWS 1994b) when assessing whether the draft amended HCP would result in destruction or adverse modification of critical habitat for the tortoise in the UVRRU. In addition, we strongly recommend coordinating with the Desert Tortoise Recovery Office.

**5. Using Habitat as a Surrogate for Incidental Take** – The 1995 HCP tracked incidental take by numbers of tortoises. The 2020 HCP changed this from a numerical limit of individual tortoises on specified lands to acres of potential tortoise habitat.

The draft amended HCP should describe the causal link between the surrogate and take of the tortoise. It heavily relied on tortoise habitat modelling Nussear et al. (2009). This modelling effort was remarkable at the time and noted several assumptions used in modeling tortoise habitat. These included limitations on the quality of the data used; the resulting model scores reflecting hypothesized habitat potential and therefore are not totally accurate; the map of desert tortoise potential habitat does not account for changes to habitat quality or loss of habitat from human activities including climate change and natural disturbance. In addition, it did not model habitat needed for connectivity among tortoise populations.

The HCP should use the best available information for determining the occurrence, location, and arrangement of tortoise habitat to identify/map it in Washington County. Since the Nussear (2009) publication, other researchers have published results on modeling tortoise habitat that update and refine the methods used by Nussear et al. (2009). For example, Feinberg et al. (2019) used methods with 30-meter resolution, in contrast to the 1-kilometer resolution of the U.S. Geological Survey model (Nussear et al. 2009) and did not include occurrence data for the Sonoran desert tortoise (*Gopherus morafkai*).

Absent from these models is the identification and inclusion of linkage habitats needed/used by the tortoise to provide connectivity among populations within the UVRRU and to the adjacent Northeastern Mojave Recovery Unit. We recommend that the draft amended HCP use the best available habitat model(s) for the Mojave desert tortoise and include linkage habitats in the analysis. This should be the starting point for the analysis. The analysis process should include several interacting ecological factors that affect the functions and values of habitats used/needed by tortoises and the existing and likely future threats that would occur to tortoises on the remaining tortoise habitat. For example, for some tortoises the habitat at one location may provide native forage but not cover, or cover but not nesting habitat. Proposed covered activities may impede or isolate tortoises and/or habitat needed (i.e., loss of connectivity), making the indirect impacts greater than the direct loss of habitat from covered activities. Thus, the functions, values, and configuration of areas needed by the tortoise population in the UVRRU were not fully considered, nor were the planned or likely future uses/changes of the remaining habitat for tortoises such as climate change, surface disturbance activities on BLM lands, etc.

We ask that the HCP describe what would happen if the following scenario occurred – At the end of the 25-year permit term, the tortoise habitat closer to existing development was noticeably degraded while tortoise habitat on the periphery was not. However, because of this spatial arrangement, the tortoise habitat/tortoises on the periphery became isolated, cut off from other tortoises. Their numbers are too small to persist because of this isolation and they will shortly be extirpated by genetic, demographic, and environmental stochastic events. Because these tortoises are impacted by the taking from development of other lands that resulted in their small population size and isolation, and no required implementation of management actions to protect them from threats such as human subsidized predation from the nearby permitted development, would the applicant be required to mitigate the taking of these tortoises?

**6. Requesting increase in tortoise habitat permanently lost to covered activities with no corresponding increase in minimization and mitigation with long-term effectiveness for the conservation of the tortoise** – The 1996 ITP set a numerical cap on tortoise numbers and identified acreage and areas of tortoise habitat (i.e., 12,264 acres of non-federal land with tortoises and 31,282 acres of geographically isolated non-federal lands with no documented tortoise sign but potential tortoise habitat). The 2020 amended HCP proposed a substantial increase in lands to be developed – 200 acres in the Red Cliffs NCA and all remaining non-federal lands outside the Reserve that are considered potential tortoise habitat (66,101 acres), but with no increase in lands to be managed at a reserve level. Zone 6 is not managed at a reserve level. This issue is part of # 3.b. above in which issuance of an ITP requires minimizing and mitigating the impacts of the taking to the maximum extent practicable.

The HCP should demonstrate why additional acres cannot be acquired and managed at a reserve level to conserve the tortoise as specified in the 1994 Recovery Plan (USFWS 1994a). For example, why isn't the entire Red Bluffs ACEC included in the proposed Zone 6 satellite reserve? Answer: Because the BLM presupposes the Western Corridor will be constructed. BLM should be responsible for recovering tortoises, not planning for and facilitating deleterious transportation projects on our public lands.

In the HCP, the USFWS stated that “enough habitat must be protected within a recovery unit, or the habitat and desert tortoise populations must be managed intensively enough to ensure long-term viability.” Recovery requires “implementation of reserve level protection” within each TCA. They recommended that reserves be “at least 1,000 square miles.” “The utility of large reserves in preventing extinction is one of the best established tenets of conservation biology.” Specifically, for the UVRU, the USFWS said, “genetic, demographic, and other considerations point to the inescapable conclusion that small reserves in a highly fragmented habitat are a recipe for extinction of the desert tortoise” (USFWS 1994a).

Please provide data and the scientific analysis to support that the past and proposed management of the Reserve will contribute to the recovery of the tortoise and will not contribute to its eventual extinction. These data and analysis should be conducted on invasive plant species, wildfires, climate change and population/habitat fragmentation. According to one court decision, the FESA requirement is that habitat conservation plans “conserve” listed species.

## **7. Complying with Other Federal Laws –**

*7.a. The Omnibus Public Land Management Act (OPLMA) was passed by Congress in 2009. –*

Section 1974 created the Red Cliffs NCA. The purposes of this NCA are (1) to conserve, protect, and enhance for the benefit and enjoyment of present and future generations the ecological, scenic, wildlife, recreational, cultural, historical, natural, educational, and scientific resources of the NCA; and (2) to protect each species that is located in the NCA, and species listed as a threatened or endangered under of the FESA. This NCA is to be managed in a manner that conserves, protects, and enhances the resources of the NCA. The only allowed uses in this NCA are those that would further those described under “Purposes.”

Please provide information and supporting documentation from the scientific literature on how issuance of an ITP that would accommodate the construction, use, operation, and maintenance of the Northern Corridor Highway in the Red Cliffs NCA would not violate the OPLMA. Please provide information and supporting documentation from the scientific literature on how permitting the development of 200 acres at unspecified locations, with unspecified mitigation, and no guarantee of its effectiveness within the Red Cliffs NCA would comply with the OPLMA.

*7.b. The National Historic Preservation Act, Section 106 (NHPA) requires federal agencies to take into account the effects of their “undertakings” on cultural resources that are, or may be, eligible for inclusion on the National Register of Historic Places –*

The USFWS’s issuance of an ITP is an undertaking. Therefore, the issuance of an ITP to develop large areas of land, other covered activities, and conservation measures stipulated as a condition of the permit and described in the HCP that have the potential to cause an adverse effect to historic properties are subject to further review under NHPA. The USFWS should demonstrate that it has complied fully with this statute and its implementing regulations (36 CFR 800). In the past, the USFWS has had limited experience and cultural resources staff to comply fully with this statute and its implementing regulations.

**8. Tracking Incidental Take** – The ITP issued in 2021 provided the following incidental take. Up to “62,960 acres of Mojave desert tortoise habitat associated with covered activities on specified non-Federal and non-tribal lands in the permit area and up to 200 acres of impacts to Mojave desert tortoise habitat may occur on the non-specified non-federal lands in the reserve (including Zone 6 under Northern Corridor circumstance).” Please explain why it was not included in the calculation of the surrogate of loss of tortoise habitat.

In conclusion, lost habitats and displaced tortoises from HCP-authorized development activities were considered allowable based on the understanding that protected and acquired habitats within the Reserve would be conserved. The Council finds that construction of a new highway through a conservation area whose function it is to offset tortoise losses attributed to authorized activities since 1995 is counterintuitive and counterproductive; it violates the intent of the federal take permit and undermines the efficacy of conservation within the Reserve. A new highway through the Reserve was not a foreseen event in the federal take permit, so it appears now the USFWS is willing to accommodate this unforeseen impact by amending the HCP and 10a permit at the expense of tortoise conservation within the Reserve.

We appreciate this opportunity to provide the above comments and trust they will help protect tortoises during any resulting authorized activities. Herein, we reiterate that the Desert Tortoise Council wants to be identified as an Affected Interest for this and all other projects funded, authorized, or carried out by the BLM that may affect desert tortoises, and that any subsequent environmental documentation for this project is provided to us at the contact information listed above. Additionally, we ask that you respond in an email that you have received this comment letter so we can be sure our concerns have been registered with the appropriate personnel and office for this project.

Respectfully,



Edward L. LaRue, Jr., M.S.  
Desert Tortoise Council, Ecosystems Advisory Committee, Chairperson

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