Date: 21 October 2023

Attn: Laine McCall
Bureau of Land Management, St. George Field Office
345 East Riverside Drive
St. George, Utah 84790
lmccall@blm.gov

RE: West Mountain Trail Alignment & Construction (DOI-BLM-UT-C030-2023-0017-EA)

Dear Ms. McCall,

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 that the Bureau of Land Management (BLM) contacted us via email on 9/21/2023 to provide this opportunity to comment on the above-referenced project. Given the location of the proposed project in habitats potentially 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 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), habit 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.

Unless otherwise noted, the following page numbers refer to the draft environmental assessment (DEA), prepared by the BLM, and dated September 2023 (29 pp). Section 1.1, page 4 indicates the BLM has prepared the DEA “…to disclose and analyze the environmental effects of a BLM proposal to align and construct up to 13.3 miles of new singletrack mountain bike downhill trail and three trailheads on West Mountain in Washington County, Utah. The proposed trail and trailhead construction would occur during the spring of 2024 and cause 6.58 acres of permanent disturbance on BLM-managed land.”

Also on page 4, “West Mountain Trail is located on a peak at an elevation of 7,680 ft., in the Beaver Dam Mountains, East of Tule Springs Hills, South of Bull Valley Mountains, and west of the town of St. George, UT. West Mountain currently provides opportunities for primitive and unconfined recreational activities; including hiking, camping, hunting, equestrian riding, site seeing and photography. Motorized access to the peak is via one primitive route that turns north off the West Old Highway 91.”

Upon reading the DEA, we note that desert tortoise is not mentioned anywhere in the document. In the Revised Recovery Plan for the Mojave Population of the Desert Tortoise (USFWS 2011), the U.S. Fish and Wildlife Service (USFWS) reports that “[d]esert tortoises occur from below sea level to an elevation of 2,225 meters (7,300 feet) although typical tortoise habitat occurs below 1,677 meters (5,500 feet). We were unable to find a definitive description of the elevational ranges where the West Mountain Trail would occur. We did find information that suggests that some of the proposed project may occur at elevations below 7,300 feet and 5,500 feet, as BLM reports on the fire history of the project site. “Several small to large-scale wildfires occurred primarily between 2004 and 2006…” with the fires “…primarily concentrated in the southern portion of the proposed project site (elevations ranging from 4800 – 5600 feet), while the higher elevations (5600 – 7500 feet) have not burned.” On page 16, BLM reports, “Habitat at the lower trailhead is classified as Mojave Mid-Elevation Mixed Desert Scrub.” This information suggests that part of the project site occurs within the known elevational range of the tortoise. The FEA should reference data on the upper elevational limits for tortoises in southwestern Utah.
If BLM develops this trail, recreational users on foot or on bikes will necessarily pass through lower elevations that are very likely to be occupied by desert tortoises. Although the second paragraph on page 8 indicates, “The trail would begin on the east side of Hell Hole Pass and would weave along the southern cliff edge heading west. The trail then turns south and traverses rolling terrain. The trail ends just north of Welcome Springs,” the DEA fails to indicate how the trailhead would be accessed. Please provide this information in the FEA for the three trailheads.

We do see the following information on unnumbered page 8 of 10 in the Interdisciplinary Team Checklist in the appendix provided by the BLM: “Desert tortoise: The proposed project would take place just north of the Beaver Dam Wash National Conservation Area, which encompasses designated critical habitat for the desert tortoise. However, the 2009 Nussear et al. model shows very low suitability in and around the project area. The Beaver Dam Mountains, where the proposed project is located, is higher elevation than where tortoises are typically found, and acts as a barrier between two tortoise recovery units: the Upper Virgin River Recovery unit, and the Beaver Dam Slope Recover Unit. Therefore, the proposed project would have no effect on the desert tortoise.”

We do not believe that relying on a model that determines “low suitability” for the project area is an adequate replacement for performing desert tortoise protocol surveys. Again, although the upper elevation of 7,690 feet is documented, the lower elevations for the project are not documented. However, Figure 4 on page 12 and shown on page 4 in this letter, clearly shows the presence of desert scrub habitats, which implies lower elevations that may be suitable for desert tortoise occupation.

The following map is provided on page 9:
Given the topographic relief shown on the above map, we suspect there may be trail users who opt to drive along one of the unpaved primary and secondary roads (shown in green) or the two-track route (shown in red) and then bike downhill along the proposed alignment (shown in blue) rather than bike uphill the entire way from the paved road to Hell Hole Pass. Whereas we do not expect that foot traffic or mountain bikes will directly affect tortoises, vehicles accessing the upper reaches of the trail as they are traveling through lower elevations could impact desert tortoises.

Given these concerns, we ask that the final environmental assessment (FEA) be amended to consider if these access roads pass through occupied desert tortoise habitats. If they do, we believe that the project “may affect” desert tortoises that would not be impacted “but for” this project. In other words, in the absence of this project, tortoises along the primary access road(s) would not be adversely affected as they may be if the project is developed. Given these concerns, we ask that the FEA be amended to document the presence or absence of tortoises and suitable or occupied habitats along the primary access road(s) to the trailhead, and analyze the direct, indirect, cumulative, and synergistic impacts that may result from implementing the Proposed Action as described in Section 2.2 on page 8.

In addition, we request that BLM add information in the FEA about its consultation history with the USFWS regarding this project. We note that on page 27 of the DEA, List of Persons, Agencies and Organizations Consulted, the USFWS is not listed.

The third paragraph on page 8 states, “Trail construction would consist of removing brush and vegetation down to bare earth in a 3-foot-wide corridor. The total amount of disturbed surface area would be approximately 210,672 square feet (5.59 acres).” Although we see an elevation of 5,960 feet midway between Summit Spring and Middle Spring, the map is at sufficiently low resolution that we cannot determine the elevation of Summit Spring, which may be sufficiently low (i.e., at or below 5,500 feet) that tortoises may occur to the southeast. If Summit Spring is at or less than 5,500-foot elevation, we request that desert tortoise surveys (USFWS 2019) be performed along the proposed alignment and the two-track road between Summit Spring and the primary paved road. The results of these surveys, or other information provided by the BLM that confirms tortoises are absent from the area, should be published in the FEA.

If a tortoise or tortoise sign is found in the action area for this proposed project, with “action area” defined in 50 Code of Federal Regulations 402.02 as “all areas to be affected directly or indirectly by proposed development and not merely the immediate area involved in the action,” we request that BLM reschedule the construction of the West Mountain Trail so it does not occur during the active season for the tortoise, which is typically the spring and fall. Compliance with the Migratory Bird Treaty Act could also be accomplished by not constructing the trail during the breeding season for birds, typically spring into early summer.

In fact, BLM says on age 13 of the DEA, “[a]voiding construction activities during breeding season for migratory birds (February 1 through August 15) would alleviate most of the impacts to migratory birds.” However, earlier in the DEA, BLM says construction would occur in spring 2024. And for bighorn sheep mitigation, BLM comments that “[c]onstruction of the trail and subsequent trail use will be avoided during critical lambing season, which runs from February 15th-April 15th.” If tortoises are found to use the project area, would BLM limit the use of the trail during the tortoise breeding season or active season?
Figure 4 is shown on page 12, where the yellow area represents 24 parking spaces:

Page 8 indicates, “The Lower Parking area [pictured above in yellow] measures 140’ X 200’, 0.70 acres. Twenty-four parking spaces and a bathroom are planned.” It is not clear from the DEA if this area is to be paved or not (which should be clarified in the FEA), but it is clear that the structure and southern portions of the trail would be developed in desert scrub, which appears to be suitable if not occupied desert tortoise habitat. This observation underscores the importance of performing surveys in the action area for the southern portions of the proposed alignment and for the lower parking area.

If these surveys reveal that tortoises are in the area, or the BLM reconsiders that there is a potential for tortoises to occur, we ask that the following bullet in Section 2.5 on page 13 be amended to include desert tortoises, as shown in bold font: “Educational information will be included in the new interpretive display kiosk at the trailheads/staging areas. Topics regarding desert tortoise, mule deer and bighorn sheep conservation, habitat, and ecology will be presented to the public.”

Another bullet near the bottom of page 13 states, “All food-related trash items such as food wrappers, cans, bottles, and food scraps would be disposed of in closed containers and removed daily from the construction site.” Whereas this provision is applied to the construction phase of the project, we ask that the BLM also commit to removing garbage from the established bathrooms and parking areas on a regular basis, depending on the levels of human use. The trash containers should be predator-proof so that common ravens, coyotes (known tortoise predators), and bears cannot access their contents, with bears frequently spreading the trash that tortoise predators may then easily access.
The third bullet from the bottom of page 14 states, “All areas subject to temporary ground disturbance, including storage and staging areas, would be restored to the original contours, and revegetated following construction.” To facilitate the success of revegetation in desert scrub habitats, we offer links to the following two resources (see Literature Cited section below): Abella and Berry (2016), Abella et al. (2023). We request that BLM commits (1) to ensuring the revegetation efforts using native plant species are successful, and (2) to routinely removing invasive non-native plant species, especially at lower elevations of the project area. This action is necessary as all vehicles including mountain bikes, cars, and trucks disperse and help reestablish and proliferate invasive non-native plant species that adversely affect numerous native plant and animal species and fuel wildfires.

We request that BLM provide information in the FEA on the possibility of route proliferation in the project area and if it occurs, the actions BLM will implement to halt this unauthorized activity and re-establish soils and vegetation damaged/lost by this activity.

**Impacts Reported for Issues 1 and 2**

BLM describes the impacts to bighorn sheep, deer, and migratory birds in these two issues. The Council requests that in the FEA the BLM analyze the impacts to these wildlife resources using science to support their conclusions. There are numerous research papers in scientific journals on the impacts of mountain bikes on wildlife resources. For example, Kuwaczka et al. (2023) reported impacts to the following resources: new and ongoing soil compaction and erosion; damage to plants that result in loss of vegetation cover, density, species richness, and altered species composition; spread/recurring spread of plant pathogens to new areas; spread/respread of invasive, non-native plant species; avoidance by wildlife of areas used by mountain bikes; and lower food abundance resulting in need for larger territories. While BLM has described some of these impacts in the DEA, we request BLM analyze in the FEA their effects on wildlife including the tortoise if it occurs in the action area.

Resource Issue 1 is “Fish and Wildlife Excluding USFW Designated Species” (page 7 and Appendix A). The FEA should explain what this phrase means. We presume it means U.S. Fish and Wildlife Service designated species, which would imply species designated or listed under the Federal Endangered Species Act (FESA). We request that BLM explain what this phrase means in the FEA and if our presumption is correct, why species listed/proposed for listing under the FESA were not included in the DEA.

**Cumulative Impacts**

Although BLM provided sections in the DEA where they discuss cumulative impacts, please ensure that the Council on Environmental Quality’s (CEQs) “Considering Cumulative Effects under the National Environmental Policy Act” (1997) is followed, including the eight principles, when analyzing cumulative effects of the proposed action. If the tortoise would be affected by the proposed project, then the cumulative impacts section of the FEA should include the tortoise in this analysis.
CEQ states, “Determining the cumulative environmental consequences of an action requires delineating the cause-and-effect relationships between the multiple actions and the resources, ecosystems, and human communities of concern. The range of actions that must be considered includes not only the project proposal but all connected and similar actions that could contribute to cumulative effects.” The analysis “must describe the response of the resource to this environmental change.” Cumulative impact analysis should “address the sustainability of resources (emphasis added), ecosystems, and human communities.” CEQ’s guidance on how to analyze cumulative environmental effects contains eight principles listed below:

1. **Cumulative effects are caused by the aggregate of past, present, and reasonable future actions.**
The effects of a proposed action on a given resource, ecosystem, and human community, include the present and future effects added to the effects that have taken place in the past. Such cumulative effects must also be added to the effects (past, present, and future) caused by all other actions that affect the same resource.

2. **Cumulative effects are the total effect, including both direct and indirect effects, on a given resource, ecosystem, and human community of all actions taken, no matter who (federal, non-federal, or private) has taken the actions.**
Individual effects from disparate activities may add up or interact to cause additional effects not apparent when looking at the individual effect at one time. The additional effects contributed by actions unrelated to the proposed action must be included in the analysis of cumulative effects.

3. **Cumulative effects need to be analyzed in terms of the specific resource, ecosystem, and human community being affected.**
Environmental effects are often evaluated from the perspective of the proposed action. Analyzing cumulative effects requires focusing on the resources, ecosystem, and human community that may be affected and developing an adequate understanding of how the resources are susceptible to effects.

4. **It is not practical to analyze the cumulative effects of an action on the universe; the list of environmental effects must focus on those that are truly meaningful.**
For cumulative effects analysis to help the decision maker and inform interested parties, it must be limited through scoping to effects that can be evaluated meaningfully. The boundaries for evaluating cumulative effects should be expanded to the point at which the resource is no longer affected significantly or the effects are no longer of interest to the affected parties.

5. **Cumulative effects on a given resource, ecosystem, and human community are rarely aligned with political or administrative boundaries.**
Resources are typically demarcated according to agency responsibilities, county lines, grazing allotments, or other administrative boundaries. Because natural and sociocultural resources are not usually so aligned, each political entity actually manages only a piece of the affected resource or ecosystem. Cumulative effects analysis on natural systems must use natural ecological boundaries and analysis of human communities must use actual sociocultural boundaries to ensure including all effects.
6. Cumulative effects may result from the accumulation of similar effects or the synergistic interaction of different effects.
Repeated actions may cause effects to build up through simple addition (more and more of the same type of effect), and the same or different actions may produce effects that interact to produce cumulative effects greater than the sum of the effects.

7. Cumulative effects may last for many years beyond the life of the action that caused the effects.
Some actions cause damage lasting far longer than the life of the action itself (e.g., acid mine damage, radioactive waste contamination, species extinctions). Cumulative effects analysis needs to apply the best science and forecasting techniques to assess potential catastrophic consequences in the future.

8. Each affected resource, ecosystem, and human community must be analyzed in terms of its capacity to accommodate additional effects, based on its own time and space parameters. Analysts tend to think in terms of how the resource, ecosystem, and human community will be modified given the action’s development needs. The most effective cumulative effects analysis focuses on what is needed to ensure long-term productivity or sustainability of the resource.

In the Final FEA, please revise the analysis of cumulative impacts of each alternative for the resource issues identified by applying these eight principles.

Note that CEQ recognizes that synergistic and interactive impacts as well as cumulative impacts should be analyzed in the NEPA document for the resource issues analyzed.

In addition, we request that BLM create/add to a database and geospatial system on a regional or national scale that tracks the decisions of individual BLM offices on the locations and use, both authorized and unauthorized, of mountain bikes. The database and geospatial tracking system should also track the resulting impacts (e.g., change in surface disturbance, loss/degradation of native plants, unpaved routes, invasive species occurrence, wildfires, litter, etc.), management decisions, and effectiveness of mitigation for each BLM office’s area of jurisdiction. Without such a tracking system, BLM is unable to analyze cumulative impacts to many resource issues including wildlife (e.g., tortoises/tortoise habitat) with any degree of confidence.

**Mitigation**

We request that BLM demonstrate how its proposed mitigation measures in the FEA comply with the following directives and policies:
- BLM Mitigation Handbook (H-1794-1)
- BLM Mitigation Manual (MS-1794)
- BLM Instruction Memorandum IM 2021-046 on Mitigation
- BLM Habitat Connectivity on Public Lands Instruction Memorandum 2023-005
BLM references this CEQ policy in its National Environmental Policy Act Handbook (BLM 2008).

**Finding of No Significant Impact**

When the FEA is revised to incorporate these comments, the Finding of No Significant Impact should also be revised to reflect these changes.

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

Cc: Josh Rasmussen, Fish and Wildlife Supervisor, Washington County, Utah Ecological Services Field Office, U.S. Fish and Wildlife Service, West Valley Circle, UT; josh_rasmussen@fws.gov

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**Literature Cited**


