

DESERT TORTOISE COUNCIL

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Via email only

29 August 2022

Attn: Jeremy Vargas, Jeffery Childers, Amy Schow, Michael Marks

Bureau of Land Management

Barstow Field Office

2601 Barstow Rd

Barstow, CA 92311

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RE: Round Mountain Allotment Pasture Fencing & Rotational Grazing Strategy (DOI-BLM-CA-D080-2022-0012-EA)

Dear Bureau of Land Management,

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.

As of June 2022, our mailing address has changed to:

Desert Tortoise Council

3807 Sierra Highway #6-4514

Acton, CA 93510

Our email address has not changed. Both addresses are provided above in our letterhead for your use when providing future correspondence to us. Despite dozens of requests that the Barstow Office of the Bureau Land Management (BLM) identify the Council as an Affected Interest on projects affecting tortoises, including a specific letter to your District Manager in 2019¹, it was a third party, not the BLM, that alerted us to this project.

¹ <https://www.dropbox.com/s/mlwe60a9lcxhy56/BLM%20CDCA%20District%20Manager%20DTC%20as%20an%20Affected%20Interest.11-7-2019.pdf?dl=0>

We appreciate this opportunity to provide comments on the above-referenced project. Given the location of the proposed project in habitats occupied by Mojave desert tortoise (*Gopherus agassizii*) (synonymous with Agassiz's desert tortoise), our comments pertain to enhancing protection of this species during activities funded, authorized, or carried out by the BLM, which we assume will be added to the Decision Record for this project as needed. 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), as it is a "species that possess an extremely high risk of extinction as a result of rapid population declines of 80 to more than 90 percent over the previous 10 years (or three generations), population size fewer than 50 individuals, other factors." It is one of three turtle and tortoise species in the United States to be critically endangered. This status, in part, prompted the Council to join Defenders of Wildlife and Desert Tortoise Preserve Committee (Desert Tortoise Council 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, page numbers referenced herein are taken from the July 2022 draft Environmental Assessment (EA) that was posted on the BLM's eplanning website (<https://eplanning.blm.gov/eplanning-ui/project/2020607/510>).

The project is summarized on page 1 as follows: "The Barstow Field Office (BAFO) of the Bureau of Land Management (BLM) proposes new pasture fencing and rotational grazing system on the current Round Mountain Allotment. The building of fencing allows a reinstatement of a rest-rotation system in the allotment. This practice was abandoned when the SBNF [San Bernardino National Forest] cancelled grazing within national forest, and fencing was not present to prevent cattle from drifting onto the SBNF from the allotment. A rotational grazing system would help reduce pressure on natural springs, manage invasive species, lead to fire fuel reduction, and improve overall range health. These improvements would encourage healthy rangeland practices that are an integral part of BLM's grazing program under the Federal Land Policy and Management Act (FLPMA) and the Taylor Grazing Act (TGA). BLM will consider approval of the Proposed Action in a manner that avoids or reduces impact on rangeland condition, threatened, endangered and sensitive species, other environmental resources and prevent unnecessary and undue degradation of public lands."

We request that BLM provide information in the final EA as to why SBNF cancelled grazing in the forest, yet BLM seeks to expand its area of use.

We question BLM's determination on page 8, which is a statement that is not supported by any scientific studies or results of focused tortoise protocol surveys (USFWS 2019) in the EA: "With implementation of Stipulations (Appendix G), the BLM has made a 'no effect' determination on desert tortoise, and therefore, additional ESA [Endangered Species Act] consultation is not required."

It is our understanding that it is because there is a “may effect” determination that the Stipulations identified in Appendix G of the EA are provided to reduce those effects, perhaps to the level of a Finding of No Significant Impacts (FONSI); otherwise, why would the Stipulations as they relate to tortoises be necessary? Simply put, where tortoises and cattle coexist there will be adverse impacts to tortoises (although some of the studies cited in Appendix A to this letter are relative to Sonoran desert tortoise, they apply equally to Mojave desert tortoise).

Our understanding of section 7 regulations is that for there to be no effect to the tortoise, there would be no direct or indirect impact to the tortoise or its habitat from implementation of the proposed action – the construction and maintenance of the fencing and the operation of a rotational grazing system and “additional waters” (page 11 of EA). Please explain in the EA how the BLM’s evaluation of the impacts to the tortoise/tortoise habitat resulted in a “no effect” determination for the action alternatives.

On page 15 of the EA, BLM says, The 14,000-acre Round Mountain allotment ranges in elevation from 4,000 to 6,000 feet. Tortoises have been documented as occurring at elevations up to 5,150 feet in southern Nevada (Rautenstrauch and O’Farrell 1998) and the Revised Recovery Plan for the Mojave desert tortoise (USFWS 2011) states tortoises occur at “an elevation of 2,225 meters (7,300 feet)” with “[t]ypical habitat for the desert tortoise in the Mojave Desert has been characterized as creosote bush scrub below 1,677 meters (5,500 feet).” Thus, it appear that much of the proposed project occurs within elevations that could be used by tortoises. Because of the effects of climate change on temperature, soil moisture, and forage availability, tortoises may be using areas at higher elevations than previously documented. Consequently, a larger area of the allotment may be used by tortoises than previously thought, and tortoises would be subject to impacts from the action alternatives in these additional areas.

The bottom of page 12 and top of 13 read: “The Proposed Actions would consist of up to five vehicles driving on nearby designated routes along the proposed fence line, auguring and cementing holes for end panels, installing t-posts approximately 15 feet apart from each other, and stringing wire between the t-posts.” The use of heavy equipment, even if only pickup trucks, has the potential to crush tortoises, burrows, and nests. Unless the “nearby designated routes” are alongside the fence lines, there is likely to be some cross-country travel. As such, we recommend that all fence line repairs and work involving trucks and driving off-road be monitored by Authorized Biologists or Biological Monitors who have been approved by both the U.S. Fish and Wildlife Service (USFWS) *and* California Department of Fish and Wildlife (CDFW).

The following statement appears on page 13: “Construction will only take place during the late fall, winter, and early spring months, from October 15 to March 15, when desert tortoises will be hibernating.” We note that tortoises do not truly hibernate; rather, they “brumate,” which is a state or condition of sluggishness, inactivity, or torpor exhibited by reptiles during winter or extended periods of low temperature. This means that throughout the year tortoises may be found aboveground especially during wet, warmer days (e.g., I saw a dozen tortoises out at California City one day, the third week of November under these conditions). Tortoises are most active from about March 1 to November 7, but may also emerge in early February in the project area. Although we do not disagree with the timing of these activities, we do not want workers to get the idea that tortoises will not be active and will therefore not be adversely affected just because it is between November and February. Vigilance to avoid tortoises should be practiced throughout the year.

Please note that the following statement, as written, is not true unless take authorization has been granted by both State *and* federal agencies: “Only an authorized biologist is permitted to handle desert tortoises.” Note, too, that Stipulation 4 on page 55 prohibits the handling of tortoises, which is appropriate. As mentioned above on page 8, with your “no effect” determination there is absolutely no legal way to handle tortoises, which clearly represents a “take” activity that would require authorization from the U.S. Fish and Wildlife Service through issuance of a biological opinion. Too often, we read EAs written by the BLM and/or consultants that do not acknowledge that any take of tortoises, including handling, requires permitting under Section 2081 of the California Endangered Species Act (CESA). May we assume that the proposed action is authorized by an allotment-specific or programmatic biological opinion for grazing? Even if such federal authorization exists and the BLM biologist is experienced, unless that person is authorized by a project-specific CDFW 2081 incidental take permit for this activity, even the BLM biologist is not authorized to handle tortoises.

The Council does not find the single paragraph in Section 3.1.5 on pages 17 and 18, including its repetitive use with a few word changes in subsequent sections, to constitute a valid cumulative effects analysis. Please see *Grand Canyon Trust v. F.A.A.*, 290 F.3d 339, 345-46 (D.C. Cir. 2002) in which the court decided that agencies must analyze the cumulative impacts of actions in environmental assessments. In the cumulative effects analysis of the EA, please ensure that Section 6.8.3 on Cumulative Effects in BLM’s NEPA Handbook (2008) and the 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 to the tortoise and its habitats. 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, ecosystems, and human communities.”

CEQs guidance on how to analyze cumulative environmental consequences, which 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 need 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.

The impacts from the implementation of the proposed action alternative that would allow for increased and sustained numbers of grazing animals and periods of use greater than recent uses, especially during drought conditions, should not be allowed. The impacts to the tortoise and

habitats of the tortoise, including soils, soil crusts, and vegetation, from livestock are summarized from the scientific literature in The Nature Conservancy (2005) and in Appendix A. There are a myriad of adverse impacts. Consequently, the Council does not support implementation of the proposed action alternative. Rather, we support a substantial reduction or curtailment of grazing in tortoise habitat used for feeding, breeding, sheltering, and dispersal during drought conditions, especially during megadroughts. We request that BLM use this and other scientific data to describe and analyze the direct, indirect, and cumulative impacts of the proposed action alternative to these resources, which we assume will be published in a final EA.

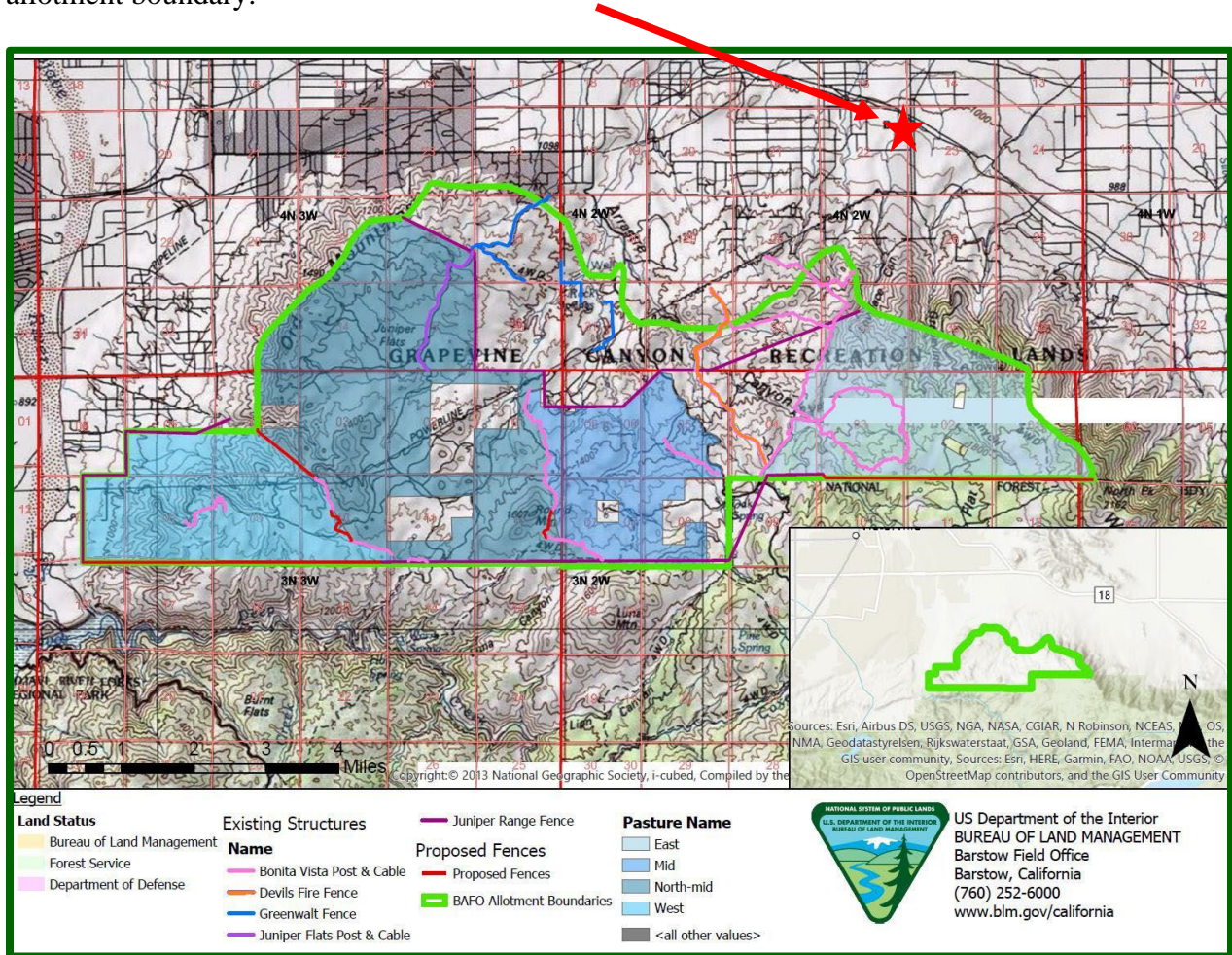
Cattle production is a major producer of greenhouse gas emissions and a significant contributor to climate change (IPCC 1990, Dijkstra et al. 2011, McGregor et al. 2021). It appears the purpose of the proposed action is to sustain if not enhance livestock production that would add to greenhouse gas emissions. The livestock sector is responsible for 18% of global anthropogenic greenhouse gas emissions, with enteric CH₄ of livestock being 25% of the livestock related greenhouse gases (Dijkstra et al. 2011). Please explain in the final EA how the proposed action alternative, which would be approved by the federal government, complies with the President's Executive Order 14008 on "Tackling the Climate Crisis at Home and Abroad" (e.g., section 204, etc.).

On page 21, BLM states "[g]razing is a proven and identified management strategy to reduce fire risk." However, we found no citations that support this statement for Mojave Desert vegetation associations. Rather the citations we found were for sagebrush communities. We request that if BLM approves an action alternative, it should be designed and implemented as a scientific experiment with clearly stated hypotheses to determine the effects of rotational grazing on native vegetation diversity, cover, and density; on fuels (non-native plants) for wildfires; and on seedbanks for native and non-native species.

On pages 28-29 and Table 3, BLM lists the relocations of at least one water trough and 11 recently approved locations for temporary haul waters. "Temporary water hauls sites were only recently authorized for the 2020-2021 grazing season under DOI-BLM-CA-D080-2021-0003-CX." We found no analysis of the direct and indirect impacts of these waters on tortoise/tortoise habitat. Because these waters appear to be connected to the Proposed Project, they should be analyzed in the final EA as connected actions. In addition, waters should be constructed and maintained so they do not trap or drown tortoises or contribute to an increase in tortoise predators. The indirect impacts of livestock watering sites to soils and vegetation when located in the Mojave Desert are quantified by Brooks et al. (2006) and include absolute and proportional cover of alien on-native annual plants increased with proximity to watering sites, whereas cover and species richness of native annual plants decreased. Perennial plant cover and species richness also declined with proximity to watering sites, as did the structural diversity of perennial plant cover classes. Significant effects were focused within 200 meters (656 feet) radius of the watering sites.

We note on page 35 that protocol surveys had been completed for arroyo toad but none have been completed for desert tortoise. Further, BLM says "The desert tortoise (*Gopherus [sic] agazzizii*), a federally and state-listed reptile, is widely distributed across the Mojave desert. Modeled suitable habitat for this species exists on the allotment, but presence has not been confirmed for this species." Given known locations of tortoises in the immediate area, we recommend that biologists qualified to conduct USFWS (2019) protocol-level surveys for the tortoise conduct these surveys

along the fence lines and in all areas where vehicles and ground disturbing equipment, including augers, will be used as well as areas where waters are placed. Please note below on Figure 2 from the EA on page 50 the starred location of an adult tortoise found by Ed LaRue in 1992 (Tierra Madre Consultants, Inc. 1992), which is approximately 1.25 miles north of the northeastern allotment boundary.



We appreciate this opportunity to provide comments on this project 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 species of 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: BLM Director, Tracy Stone-Manning, tstonemanning@blm.gov
BLM Deputy Director of Policy, Nada L. Culver, nculver@blm.gov
BLM, Assistant Director, Resources & Planning, David Jenkins, djenkins@blm.gov
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Appendix A: Summary of Impacts from Livestock Grazing to the Sonoran Desert Tortoise and Its Habitat (from The Nature Conservancy. 2005. The impacts of livestock grazing in the Sonoran Desert: a Literature review and synthesis. February 2005.)

Where livestock and desert tortoise habitat overlap, livestock can cause direct impacts to juvenile and adult tortoises by trampling and crushing individuals (Grover and DeFalco 1995, Howland and Rorabaugh 2002). Indirect impacts of livestock grazing to desert tortoise are primarily due to potential competition for forage. The desert tortoise is a generalist feeder that has been documented to consume 199 species of plants associated with the Arizona Upland Subdivision of the Sonoran Desert (Van Devender and others 2002). The desert tortoise, however, is on the physiological edge of survival in the desert and must maintain optimal levels of blood hydration, salt, and mineral levels through its diet (Ofstedal 2002) or run the risk of dehydration, starvation, or liver and kidney disease (Dickinson and others 2002).

Where livestock and tortoise overlap in habitat, competition for nutritionally important forage species can be a threat, particularly in the spring after high winter rainfall years (Ofstedal 2002). Major forage species in the Sonoran Desert include native grasses, desert vine (*Janusia gracilis*), and mallows, including desert rose mallow (*Hibiscus coulteri*), globe mallow (*Sphaeralcea ambigua*), and Indian mallow (*Albutilon* sp.). Competition with livestock for forage has the potential to impact desert tortoise nutritional condition and water balance. Spring forage availability is associated with female reproduction and hatchling emergence. As a result, ephemeral grazing systems may be particularly detrimental to desert tortoise because their growth and reproduction depends on years of above average annual forage production (Grover and DeFalco 1995). In the eastern portions of the Sonoran Desert and especially within the Arizona Upland Subdivision, warm season plants, including C4 grasses, may usurp the dietary importance of winter annuals (Ofstedal 2002).

Non-native plants including filaree (*Erodium cicutarium*), Malta starthistle (*Centaruea melitensis*), Mediterranean grass (*Schismus barbatus*), red brome (*Bromus rubens*), Sahara mustard (*Brassica tournefortii*), and Russian thistle (*Salsola tragus*) have been documented as generally a minor part of the diet, with only red brome and filaree at times reported as a major component (Ofstedal 2002, Van Devender and others 2002). Although the nutrient value of some non-native plants that are used by desert tortoise are similar to native plants when compared within the same taxonomic groups and life forms, the presence of non-native plants that are invasive—and in particular alter fire regimes—may have an indirect effect on desert tortoise diet by causing a reduction in the abundance and richness of native forage plants (Van Devender and others 2002 and references therein). Therefore, a concern exists that desert tortoise nutrition and long-term condition may be compromised with shifts in plant communities from predominantly native species to increased abundance of invasive non-native species. For example, the replacement of C4 grasses by annual non-native C3 grasses may impact the nutritional status of tortoises given the lower protein and potassium excretion potential content of C3 desert grasses and the associated rapid decline in such content due to rapid phenological maturation (Ofstedal 2002). Livestock grazing has been implicated as a cause of the occurrence and spread of many invasive non-native species.

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