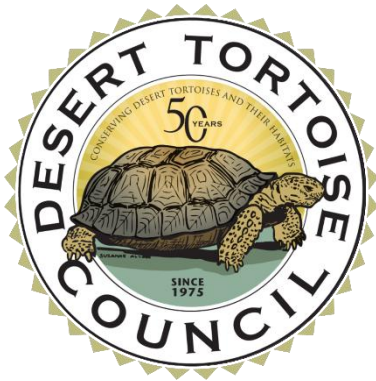




DESERT TORTOISE COUNCIL

3807 Sierra Highway #6-4514

Acton, CA 93510

www.deserttortoise.org

eac@deserttortoise.org



**DESERT TORTOISE PRESERVE
COMMITTEE, INC.**

P.O. Box 940

Ridgecrest, CA 93556

www.Tortoise-Tracks.org

Tom.Astle@tortoise-tracks.org

Via email only

September 23, 2026

Michael Vermeyes
Assistant Field Manager – Resources
Bureau of Land Management
Palm Springs-South Coast FO
1201 Bird Center Drive
Palm Springs, Ca. 92262
mvermeys@blm.gov

Cara Wiedeman
Environmental Scientist
California Department of Fish and Wildlife
Inland Deserts Region (6)
P.O. Box 2160
Blythe, CA 92226
caralyn.wiedeman@wildlife.ca.gov

RE: Installation of eight big game guzzlers in Riverside County, CA

Dear Mr. Vermeys, Ms. Wiedeman,

The Desert Tortoise Council (DTC) is a non-profit organization comprising 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 DTC routinely provides information and other forms of assistance to individuals, organizations, and regulatory agencies on matters potentially affecting desert tortoises within their geographic ranges.

The Desert Tortoise Preserve Committee (DTPC) is a non-profit organization formed in 1974 to promote the welfare of the desert tortoise in its native wild state. DTPC members share a deep concern for the continued preservation of the tortoise and its habitat in the southwestern deserts and are dedicated to the recovery and conservation of the desert tortoise and other rare and endangered species inhabiting the Mojave and western Sonoran deserts. The DTPC has a long track record of protecting desert tortoises and their habitat through land acquisition, preserve management, mitigation land banking, and educational outreach.

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.”

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 DTC and DTPC to join Defenders of Wildlife to petition the California Fish and Game Commission (Commission) in March 2020 to elevate the listing of the Mojave desert tortoise from Threatened to Endangered under the California Endangered Species Act (CESA) (Defenders of Wildlife et al. 2020). Importantly, following California Department of Fish and Wildlife’s (CDFW) (2024a) status review, in their April 2024 meeting the Commission voted unanimously to accept the CDFW’s petition evaluation and recommendation to uplist the tortoise from threatened to endangered under the CESA based on the scientific data provided on the species’ status, declining trend, numerous threats, and lack of effective recovery implementation and land management (CDFW 2024b). On July 15, 2025, the tortoise was officially uplisted to endangered status under the CESA (Commission 2025).

Background

In mid-August 2026, a concerned party contacted the DTC informing us that the BLM and CDFW intended to install eight big game guzzlers in eastern Riverside County, CA in tortoise habitat. One anonymous source indicated that BLM has produced a draft environmental assessment (EA) for the construction of these new guzzlers while another source indicated that BLM is pursuing the project under a categorical exclusion (Cat-X). The DTC responded by sending emails to BLM,

CDFW, and U.S. Fish and Wildlife Service (USFWS) biologists inquiring about the project. On August 31, 2024, Ms. Weideman of CDFW responded, “I am reaching out to reply to your inquiry about guzzlers in the Chuckwalla Bench. I am not at liberty to discuss the NEPA [National Environmental Policy Act] side of this project, as the lead project manager is BLM. You may reach me at (909) 354-0939 for an unofficial overview discussed with our BLM and USFWS partners. The project is piggy-backing off of a similar EA back in 2020 (DOI-BLM-CA-D060-2020-0036-EA). The CEQA side has been largely postponed, due to uncertainty of obtaining federal permits. Your interest has been noted, and I will be sure to forward you information as it is posted.”

Ed LaRue spoke with Ms. Wiedeman later that day getting additional insights into the project. My recall is that Ms. Wiedeman shared that:

- Money from the Wildlife Conservation Board (WCB) (maybe left over from the 2020 funds when an unknown number of quail guzzlers were constructed in the same region) would be used to construct eight new guzzlers in the region, including five in the Chuckwalla Bench Critical Habitat Unit and three elsewhere in Riverside County, north of Interstate 10.

Although the email inquiries of August 31, 2026 were addressed to Mr. Brandon Anderson of the BLM, it was Mr. Michael Vermeys who called LaRue on September 1, 2026. Both the DTC’s questions of August 31 (shown below in bold font) and Mr. Vermeys’s responses on September 1 are included in the following quotes:

“Good morning Mr. LaRue, It was a pleasure speaking with you this morning about your below email related to a CDFW proposal to remove/replace/maintain eight wildlife guzzlers on BLM administered public lands throughout the Chuckwalla bench.

“In about 2020, an unknown number of upland quail guzzlers were either constructed or modified in tortoise critical habitat on the Chuckwalla Bench as addressed in our attached comment letter of 9/8/2020 to the BLM. Although it was a CDFW proposal using Wildlife Conservation Board (WCB) funds, BLM served as the NEPA lead on the project. I have read through the Decision Record for DOI-BLM-CA-D060-2020-0036-EA.

“There is a renewed CDFW proposal, apparently drawing from the same WCB grant funds, to construct eight new guzzlers in southeastern California, including five that would be on the Chuckwalla Bench in tortoise critical habitat and three more north of I-10. Yes, as discussed earlier this morning, please see above the ePlanning weblink with the Project Description posted. I was unaware of any funding aspect of the project until reading your statement.

“One anonymous source indicated that BLM has produced a draft environmental assessment (EA) for the construction of these new guzzlers while another source indicated that BLM is pursuing the project under a categorical exclusion (Cat-X). Either way, we have not seen anything on BLM's e-planning NEPA website about this project. We have definitely commented on numerous BLM Cat-X proposals, so we understand that even Cat-X projects (in addition to draft EAs) are regularly distributed to the interested public for review and

comment. The guzzler project submitted by Cara Wiedeman of CDFW was specific to the removal/replacement/maintenance of eight guzzlers, a Categorical Exclusion with newly adopted citation was utilized: 516 DM 11.11 (K)(7). Maintenance, rehabilitation, and replacement of existing facilities which may involve a minor change in size, location, and/or operation (2/2026).

“Questions (from LaRue on August 31, 2026):

“1. What is the status of this proposed project? As mentioned earlier on the phone call, the status of the proposed project is as follows: a BLM's NEPA CE [Cat-X] project description and extraordinary circumstances is in Final Draft stage of review by assigned resource staff, a letter notifying Tribes of the proposed project was mailed last week for 30-day response period, a [US]FWS Activity Form was submitted last week for [US]FWS concurrence, the CE was provided to our office Planning and Environmental Coordinator for initial review.

“2. Is there either a draft EA or a Cat-X document available for public review and comment? If so, can you provide the document(s) and let us know how we can comment? If not now, when will BLM solicit public input? Per recent changes to the current Administration's NEPA policy and regulations, BLM is required [to] develop an ePlanning web page, populate the required information and post the 508 compliant CE/Decision following Authorized Officer approval. Please see Document pg. 29, PDF pg. 33/133

[“DOI Handbook of NEPA Procedures](#)

“Again, Thank you for taking the time to speak with me this morning and better understand your position as it related to Desert Tortoise and the Desert Tortoise Council. Please feel free to contact me directly anytime eliminating anonymous sources and speak directly.”

Comments and Concerns

The DOI Handbook link and referenced page documents the current Administration's decision to limit public input on many Cat-Xs and EAs by not inviting public participation to provide comments, including this project. However, the projects are still published on BLM's ePlanning website, and it is our understanding, as a long-established Affected Interest for projects that may affect the desert tortoise, that we may still express our concerns in writing, which may or may not be taken into consideration by the federal and State lead agencies.

Comment 1. Previous concerns expressed in formal comment letters. Since the public is effectively excluded from the planning process, we note that the Cat-X document has not been posted on the BLM's ePlanning website, so we do not have the benefit of reviewing the methods and protective measures to be implemented during activities associated with the proposed project. In the following summaries of two previous letters, we reiterate our concerns and potential solutions here for the eight new guzzlers to be repaired, replaced, or maintained, and ask that these or similar protective measures identified in the two letters be implemented, as applicable, for the new project.

In our letter dated September 8, 2020 to the BLM (Attachment 1, CDFW Small Game Guzzler Enhancement Environmental Assessment DOI-BLM-CA-D060-2020-0036-EA), the DTC expressed its concerns with:

- The entrapment of tortoises in quail guzzlers that had slick, fiberglass bottoms, which should be retrofitted to prevent tortoise and other animal drownings;
- that five big game guzzlers were being improved without expenditures to prevent tortoise drowning mortalities in numerous upland quail guzzlers on the Chuckwalla Bench;
- using existing routes but then driving cross country to access the guzzlers should be limited to as few vehicles as possible;
- monitoring cross country access routes approximately one month after installation to ensure that vehicles are not using them as new routes and implementing vertical mulching or other camouflaging technique if there has been subsequent use;
- ensuring that CDFW personnel do not use these temporary access routes for construction or retrofitting for future monitoring activities that would result in new access routes to the guzzlers;
- implementing protective measures to avoid drowning of CDFW-designated rare species, American badgers and desert kit foxes, in the new guzzlers;
- ensuring that biological monitors have necessary prior tortoise experience;
- that if tortoises are to be handled, the BLM ensures that the take is authorized under a State Section 2081 incidental take permit (ITP) and a federal Section 7 biological opinion; and,
- that a scientifically based monitoring program be developed to ascertain if tortoises are drowning in these repaired, replaced, or maintained guzzlers.

In our letter dated November 5, 2022 to the BLM (Attachment 2, Chuckwalla R-5 Ship Creek Guzzler Repair Chuckwalla Mountains Wilderness Environmental Assessment), the DTC expressed its concerns with:

- The timing of repair, replacement, and maintenance activities, which are best in the winter (November to January) or summer (July and August) to avoid heightened activities of tortoises in the region;
- actions that would be implemented after the construction phase of the project is completed and whether additional mitigation would be implemented following maintenance activities;
- the creation of a new vehicle route in critical habitat with resulting long-term impacts to soils, vegetation, tortoises, and human access;
- the attraction of predators to the area because of a newly-created reliable source of water;
- the likelihood of tortoises and other small animals becoming entrapped or drowning in the guzzler;
- the impacts to surface flow downstream/downslope from the guzzler;
- completeness of the analysis of the major indirect impacts to surface hydrology, soil moisture, vegetation, and the tortoise from implementation of the proposed action alternative;
- ensuring that algae build-up does not undermine the roughened surfaces designed to allow tortoises to escape from guzzlers they have entered to drink.

Comment 2. Evidence of tortoise mortalities in guzzlers. To our knowledge, one of the most comprehensive studies of vertebrate mortality in upland guzzlers was prepared by Hoover (1995). LaRue visited 45 guzzlers as part of this study where the remains of seven drowned tortoises were found. Given the elevated edges of the guzzler aprons, there was no likelihood that tortoises were washed into the guzzlers, and every indication that they drowned. In all cases, it was guzzlers with fiberglass surface bottoms – not roughened concrete bottoms – where the drowned tortoise remains were found. Therefore, if any of the eight guzzlers are to be newly constructed (e.g., replaced), please be sure that the surfaces of the aprons and water tanks are roughened concrete (or similar surface) and not fiberglass. If CDFW or BLM are repairing any guzzlers with fiberglass bottoms, we recommend that this roughened surface be used.

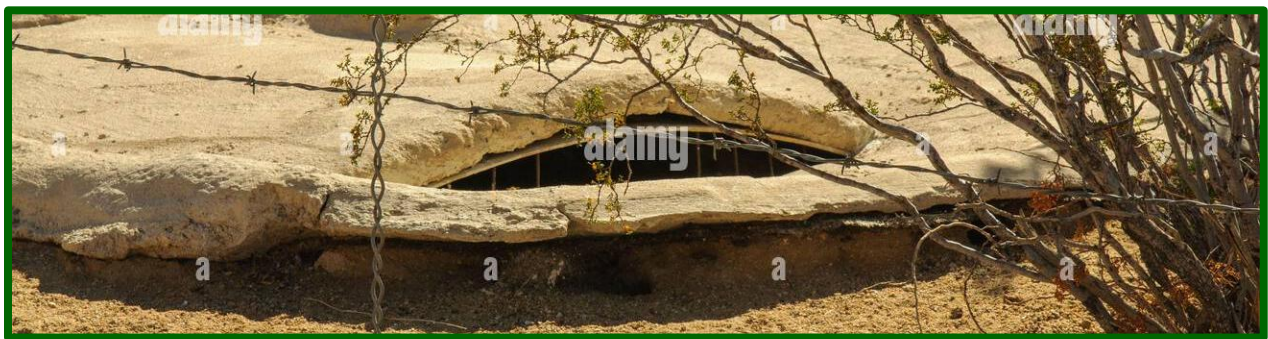
Comment 3. Upland *quail* guzzlers versus upland *big game* guzzlers. We appreciate that Mr. Vermeys provided the following two images of upland big game guzzlers in his email of September 1, 2026:



Since these images were taken before the guzzler was installed, it is not clear if the tank would sit on top of the ground, as pictured in the right photograph, or if it would be partially buried. If it is to be set on top of the ground as pictured, we suspect that tortoises would not likely be able to scale the steep walls of the water tank. But if they are partially or fully buried, there is the potential for tortoises to be attracted to the water and crawl inside the tank via the ramp. We recommend that the tanks not be buried and that they be periodically monitored following a science-based monitoring study to see if tortoises are drowning in them. And if they are, to be retrofitted to avoid future mortalities.

We note that these big game guzzlers are very different from quail guzzlers, which were the type studied by Hoover (1995). Quail guzzlers have wide aprons, typically with a concave opening that may have bars in the opening, like the one shown below. Although intended to preclude animals from entering the guzzler tank, it has been our experience that animals, including tortoises, are able to enter in between the bars where they drown.

Because the design of guzzlers is known to trap tortoises and trapping is included in the definition of take under the Federal Endangered Species Act (FESA) and CESA, the guzzlers should be designed, frequently maintained, and monitored to ensure that entrapment or any size tortoise does not occur. CDFW and BLM should ensure that formal Section 7 consultation under FESA and issuance of a Section 2081 permit under CESA is completed before the proposed action is initiated. To fully mitigate for the proposed action, a requirement for issuance of a Section 2081 permit, CDFW should ensure that guzzlers are designed to avoid take of tortoises. This would include designed and maintaining the guzzlers so that they are not accessible to any size tortoise that would result in entrapment or drowning, and not accessible to any tortoise predator – specifically common raven (*Corvus corax*), coyote (*Canis latrans*), bobcat (*Lynx rufus*), kit fox (*Vulpes macrotis*), or badger (*Taxidea taxus*). Studies on human-provided subsidies of food and water for tortoise predators have shown that they increase the number of predators and predation pressure on the federally threatened and state endangered Mojave desert tortoise (Kristan 2001, Kristan and Boarman 2007, Holcomb et al. 2021, Richter et al. 2024, Berry et al. 2026 *in review*). Thus establishing new guzzlers or maintaining existing guzzlers is likely to increase tortoise mortality.



Our main purpose for showing this guzzler and reiterating our concerns expressed in previous letters for tortoises drowning in quail guzzlers is that we strongly recommend that CDFW and BLM use available funds to retrofit these guzzlers to avoid fiberglass floors, where the majority of drowned tortoises have been found, and modify the design such that access by tortoise predators to water in these guzzlers is prevented or impeded.

Comment 4. New information to be considered. Board member, Dr. Kristin Berry recently submitted a journal article for publication on the impacts of guzzlers on tortoises and other desert wildlife. Although specific findings cannot be divulged until the paper is published, Dr. Berry wanted to inform CDFW and BLM that there have been nonrandom tortoise declines near guzzlers that are attributed to both mammalian and avian predators that are attracted to the guzzlers and subsequently depredating tortoises. She indicated that there is photographic evidence that coyotes, bobcats, kit fox, and American badgers (in that order), most of which are known tortoise predators, have been photographed at the guzzlers. That is all we can share at this time; we will provide the published paper to both the BLM and CDFW when available.

Comment 5. Categorical exclusion versus environmental assessment. It is our assumption that BLM's (2020) EA, dated July 30, 2020, may serve as the baseline analysis on which the current

Cat-X is being tiered. Given continuing declines of tortoises (USFWS 2022, 2025) and new information that will soon be available (Berry, et al., *in review*), it may be necessary for BLM to draft an EA for this project rather than a Cat-X. Given the expressed interest of the DTC, DTPC, and others (Center for Biological Diversity, Defenders of Wildlife), we recommend that the BLM exercise its discretion to circulate either this Cat-X or the revised Draft EA so that the Interested Public/Affected Interests can review the baseline documents and data.

Comment 6. Compliance with the California Desert Conservation Area (CDCA) Plan, as amended. BLM should include information in the Final CE that the proposed action fully complies with the CDCA Plan, especially with respect to managing for the recovery of the tortoise. “The primary biological resources goals of the DRECP LUPA [Desert Renewable Energy Conservation Plan Land Use Plan Amendment] are landscape and habitat connectivity, ecosystem and ecological function, and species conservation. The BLM believes these three primary goals are essential for management of biological resources consistent with FLPMA [Federal Land Policy and Management Act] and the Endangered Species Act” (BLM 2016).

Unfortunately, the most recent data from the USFWS on the demographic status of the tortoise in the Chuckwalla Tortoise Conservation Area (TCA) is that from 2004 to 2014 the density of adult tortoises declined by 37.4 percent to 3.3 adult tortoises per km². The USFWS considers the population viability threshold for the tortoise to be 3.9 adult tortoises per km², provided the sex ratio is 1:1 (USFWS 1994a). A skewed sex ratio toward males would require a higher density. The most recent rangewide survey results showed a further decline in tortoise density to 2.6 adult tortoises per km² (USFWS 2022). Thus in 2014 and 2021 the density of adult tortoises in the Chuckwalla TCA was below population viability. Adding new sources or enhancing current sources of water that increase predation on the tortoise from the construction and use of poorly designed guzzlers does not comply with the CDCA Plan, as amended. It would not comply with FLPMA’s mandate “to take any action necessary to prevent unnecessary or undue degradation of the lands.”

Comment 7. Compliance with the Federal Endangered Species Act. BLM should demonstrate that the proposed action complies with Section 7(a)(1) of FESA. In this section of the law, Congress stated that all federal agencies “...shall... utilize their authorities in furtherance of the purposes of this Act by carrying out programs for the conservation of endangered species and threatened species listed pursuant to Section 4 of this Act.” Congress defined “conserve,” “conserving,” and “conservation” as “to use and the use of all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition...” “[A]t which the measures provided pursuant to this Act are no longer necessary” means recovery of the species. BLM should demonstrate that the proposed action would comply with this section of FESA.

BLM should demonstrate compliance with Section 7(a)(2) of FESA, that formal consultation with the USFWS has been completed for the proposed action, and that the reasonable and prudent measure and terms and conditions in the biological opinion will be implemented including monitoring requirements.

BLM should demonstrate that the proposed action would not result in adverse modification to the Chuckwalla Critical Habitat Unit (CHU). BLM and CDFW should analyze the effects of the proposed action with all other past, present, and foreseeable actions to determine whether the proposed action would likely cause this CHU to no longer be able to provide the physical and biological features needed by the tortoise to survive and recover. These features include habitat protected from disturbance and human-caused mortality (USFWS 1994b).

BLM should demonstrate that the proposed action would not result in adverse modification to the Chuckwalla Critical Habitat Unit (CHU). BLM and USFWS should analyze the effects of the proposed action with all other past, present, and foreseeable actions to determine whether the proposed action would likely cause this CHU to no longer be able to provide the physical and biological features needed by the tortoise to survive and recover. These features include habitat protected from disturbance and human-caused mortality (USFWS 1994b).

Recall that in 2026 court declared that “use of the modifier ‘as a whole’ contradicts the [FESA] statute because it allows ‘adverse modification’ to critical habitat as long as the modification does not ‘appreciably diminish the overall value’ of the habitat.” The court also declared that “‘Destruction or adverse modification’ means a direct or indirect alteration that appreciably diminishes the value of critical habitat for both the survival *and recovery* [*emphasis added*] 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” (*Center for Biological Diversity et al. v. Department of the Interior Case No. 24-cv-04651-JST*). Thus, BLM and USFWS are obligated to conduct a revised analysis of effects to the Chuckwalla CHU if previous biological assessments and biological opinions for guzzler maintenance or installation relied on this now invalidated rangewide analysis of critical habitat.

In the Chuckwalla TCA, the density of the adult tortoise population has been and continues to be below the population viability threshold and the most recent data include a continuing decline in tortoise density (see Comment 6 above), we conclude that any additional action that would increase tortoise mortality either through trapping, drowning, or predation would result in adverse modification to the Chuckwalla CHU.

Comment 8. Compliance with BLM’s policy on Special Status Species Management – 6840. This updated policy (BLM 2024) establishes an agency-wide emphasis on proactive, landscape- and ecosystem-level, scientifically informed conservation and recovery of special status species and their habitats. It directs BLM to:

- Comply with FESA Section 7(a)(2) consultation regulations and incorporate proactive recovery efforts into proposed actions;
- promote healthy species populations and biodiversity through landscape- and ecosystem-level management; and
- use science and adaptive management to advance conservation and recovery.

BLM should demonstrate compliance with this policy when implementing the proposed action with respect to the tortoise.

Comment 9. Development and implementation of a science-based monitoring plan with respect to impacts on the tortoise. BLM should require the development and implementation of an ongoing, science-based monitoring plan that measures the effects of the proposed action on the survival and recovery of the tortoise in the Chuckwalla TCA and CHU.

Comment 10. Compliance with the Presidential Proclamation establishing the Chuckwalla National Monument. Although we did not have the benefit reviewing the Cat-X, given the size and location of the Chuckwalla National Monument, we suspect that the five guzzlers located south of Interstate are likely to be in the national monument. The Presidential Proclamation (White House 2025) on January 17, 2025, page 6724, states, “Nothing in this proclamation shall be deemed to enlarge or diminish the jurisdiction or authority of the State of California with respect to fish and wildlife management, including hunting and fishing, on the lands reserved by this proclamation. The Secretary shall seek to develop and implement science-based habitat and ecological restoration projects within the monument and shall seek to collaborate with the State of California on wildlife management within the monument, including through the development of new, or the continuation of existing, agreements with the California Department of Fish and Wildlife.”

The desert tortoise and its habitat are identified several times as objects in this Presidential Proclamation (White House 2025). In the Proclamation, the President states that he is making a national monument designation “to protect the objects of historic and scientific interest identified above for current and future generations.” This directive includes protecting the tortoise and tortoise habitat. Consequently, BLM should not allow activities that would contribute to the mortality or injury of tortoises especially when their populations are below the density threshold for population viability (USFWS 2015, Allison and McLuckie 2018) and available data indicate no increase in tortoise densities (USFWS 2022). Thus, BLM should not approve the replacement or repair of existing guzzlers or the establishment of new guzzlers that would provide water for tortoise predators in the Chuckwalla National Monument.

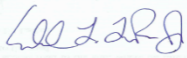
Further, page 6718 states, “The [Chuckwalla National Monument] region’s expanse of gently sloping shrubby terrain is also vital to the survival of the threatened Agassiz’s desert tortoise, encompassing key components of an essential corridor connecting the tortoise’s Chuckwalla and Chemehuevi populations. Much of the region is critical habitat for this charismatic desert dweller.” These and many other parts of the Presidential Proclamation emphasize the importance of the area for tortoise conservation and recovery, which BLM and CDFW must consider in implementing this project.

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 DTC 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 notify the DTC at eac@deserttortoise.org of any proposed projects that BLM may authorize, fund, or carry out in the range of any species of desert tortoise in the southwestern United States (i.e., *Gopherus agassizii*, *G. morafkai*, *G. berlandieri*, *G. flavomarginatus*) so we may comment

on them to ensure BLM fully considers and implements actions to conserve these tortoises as part of its directive to conserve biodiversity on lands managed by BLM.

Please 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



Tom Astle
Desert Tortoise Preserve Committee, Board President

Cc: Brian Croft, Field Supervisor, Palm Springs Fish and Wildlife Office, U.S. Fish and Wildlife Office, brian_croft@fws.gov
Kerry Holcomb, Desert Tortoise Recovery Office, U.S. Fish and Wildlife Service, kerry_holcomb@fws.gov
Mark Massar, Wildlife Biologist, California Desert District, Bureau of Land Management, mmassar@blm.gov
Laura Patterson, Wildlife Biologist, California Department of Fish and Wildlife, Laura.Patterson@wildlife.ca.gov
Mary Beth Woulfe, Carlsbad Acting Assistant Field Supervisor, Colorado Desert Division, U.S. Fish and Wildlife Service, marybeth_woulfe@fws.gov
Cara Wiedeman, Environmental Scientist, Inland Deserts Region 6, California Department of Fish and Wildlife, Caralyn.Wiedeman@Wildlife.ca.gov

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Attachment 1. CDFW 2020 Small Game Guzzler Enhancement Environmental Assessment



DESERT TORTOISE COUNCIL

4654 East Avenue S #257B

Palmdale, California 93552

www.deserttortoise.org

eac@deserttortoise.org

Via email only

8 September 2020

Attn: Kayla Brown
Bureau of Land Management
22835 Calle San de Los Lagos
Moreno Valley, CA 92553
kbrown@blm.gov

RE: California Department of Fish and Wildlife Small Game Guzzler Enhancement Environmental Assessment DOI-BLM-CA-D060-2020-0036-EA

Dear Ms. Brown,

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.

We appreciate this opportunity to provide comments on the above-referenced project. Given the location of the proposed project in habitats likely occupied by Mojave desert tortoise (*Gopherus agassizii*) (synonymous with "Agassiz's desert tortoise"), our comments pertain to enhancing protection of this species during activities authorized by the Bureau of Land Management (BLM). Please accept, carefully review, and include in the relevant project file the Council's following comments on the Project. 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.

Unless otherwise noted, all page numbers pertain to the draft Environmental Assessment (EA) referenced above and dated 30 July 2020. Page 6 of the EA describes the project as follows: “The California Department of Fish and Wildlife (CDFW) was granted the sum of \$190,000.00 by the Wildlife Conservation Board to repair and increase the storage capacity of small game guzzlers on Bureau of Land Management land (BLM) among the various mountain ranges and washes within an approximate 75-mile radius of the city of Blythe, California in Riverside County. CDFW is proposing to repair and increase the storage capacity of five small game guzzlers which would make them available for large game species. This involves replacing the existing small game guzzler with a slightly larger guzzler that is accessible to large game and repairing the existing concrete apron to ensure that water can be collected and funneled into the guzzler during rain events.”

Although we will specifically address our concerns with this EA below, we first want to express our disappointment that this money has been ear-marked to improve *five* guzzlers for use by bighorn sheep and mule deer. We have known since 1995 that desert tortoises are dying in guzzlers (Hoover 1995), and that this death can likely be avoided by retrofitting those guzzlers. Given the affected area within 75 miles of Blythe, we can conclude that all of these guzzlers are within tortoise habitats, as confirmed on pages 26 and 27, including three in critical habitat. Hoover (1995) found the remains of 26 dead tortoises in 18 guzzlers. I happen to have helped Frank Hoover with this study in the early 1990s, when I visited 45 of the 89 guzzlers in his study and found the remains of seven tortoises in them. He reports that dead tortoises were found in 20% of the guzzlers we checked, and since 89 guzzlers is a fraction of those constructed in tortoise habitats, the total, unknown loss of tortoises could be significant.

Importantly, all guzzlers I checked were intended for birds, and all those with drowned tortoises were comprised of slick, fiberglass bottoms; no tortoise remains were found in those guzzlers I checked with coarse, concrete bottoms. Hoover (1995) reports that of the 18 dead tortoises, 15 (83%) were found in fiberglass guzzlers and 3 (17%) were found in guzzlers with concrete bottoms. We recommended to CDFW at the time that the spaces between the rebar at the opening of the guzzlers be diminished and that the bottoms of fiberglass guzzlers be retrofitted with mesh materials or otherwise treated to provide rough surfaces. Although the cost to perform these improvements is unknown, we believe that substantially more than five upland quail guzzlers could have been treated to avoid tortoise mortality with the \$190,000 grant to CDFW.

We note in this rather simple EA that there are only two alternatives, including the No Action Alternative and the Proposed Action Alternative; so, in effect, there are no other action alternatives to be considered. We cannot tell from the information presented in the EA if it is a stipulation of the Wildlife Conservation Board (WCB) that the CDFW is obligated to spend the \$190,000 grant on five big game guzzlers, or if there is the latitude to spend it in other ways on guzzler rehabilitation, or if this is a one-time grant. Although it may now be too late to reconsider how these funds are spent, we strongly recommend that additional funds be solicited from the WCB and that those funds be spent to retrofit as many upland game guzzlers as possible to avoid tortoise mortalities.

Given the ongoing declining status of the tortoise, and that most populations in California are below the density needed for population viability, the tortoise cannot afford mortality, especially if it can be avoided by designing and monitoring guzzlers to prevent entrapment/drownings. In addition, the increased storage capacity would likely make water available for longer periods or perhaps year-round.

More pertinent to the proposed project description given on page 10, particularly in light of Hoover's findings described above, we read "A new *fiberglass* large game guzzler, which are [sic] 17' long x 9' wide x 3' deep in size, would be placed in the existing hole [*emphasis added*]. Nor is there any description on page 10 or elsewhere that these guzzlers will be fashioned to avoid entrapping tortoises and other animals. Hoover (1995) reports that "...the remains of 173 other vertebrate animal species were collected from other guzzler tanks." And, I know from my experience that two of these animals included CDFW sensitive species, American badger (*Taxidea taxus*) and kit fox (*Vulpes macrotis*). We strongly suggest that either (1) fiberglass surfaces not be used in the installation of these five tanks or (2) that the fiberglass bottoms be painted or otherwise treated with a roughened surface material like concrete to allow entrapped animals to escape.

We note the following information on page 10 relative to accessing the sites: "CDFW has proposed to access the five existing guzzlers using BLM designated OHV routes to get as close to each guzzler as possible, *they will then drive the remaining distance to the guzzlers using open washes* [*emphasis added*] ... A qualified biologist will clear the off-route tracks for desert tortoise, nesting birds, and active mammal dens before driving. Upon departure, CDFW will completely cover their off-route tracks."

We appreciate that CDFW is implementing measures to avoid impacts at the time of installation and will cover the tracks to avoid future use of the washes, as our experience is that once tracks occur in washes, more are likely to occur. Before leaving the areas, we recommend that symbolic row(s) of rocks be placed at the interfaces between the roads and washes, and/or vertical or horizontal mulching using dead and down materials be used to help conceal the entry points into the washes. In addition, we recommend that the CDFW or BLM revisit the entry points from the open routes into the washes approximately a month after installation, look for any additional use, and if there is any, eliminate the tracks again. For the record, it would be good to have before and after photographs to see if these approaches worked and, if so, encourage their implementation for other similar projects.

With regards to equipment listed on page 10, we note that a backhoe and four, four-wheel drive trucks will be used, but it is not revealed to what extent. We certainly hope that not all four trucks will follow the backhoe into each site, particularly in the washes. In any case, we recommend that as few vehicles as possible access each site, and that the backhoe not make multiple trips into and away from the sites. It is highly advisable that there be one trip in and one trip out, with as few vehicles as possible, and without multiple visits per vehicle.

With regards to monitoring on page 11, we read, "CDFW and/or its agents would drive to the sites to monitor the enhanced guzzlers as needed for water level and quality inspection." Please specify that CDFW personnel will not drive in any washes to inspect or monitor the sites. Certainly, we understand that constructing the guzzlers will require one-time access by heavy equipment and

personal vehicles using washes while implementing the mitigating measures, but it should be clear that these washes will not become permanent access roads for monitoring, which we firmly believe can be accomplished on foot within washes. It is not clear how the acreages were calculated in Table 3 on page 17, but given the relatively small acreages of temporary impacts, we judge this to mean that the access areas along washes are relatively short.

We note in Table 2 on pages 15 and 16, that American badger and desert kit fox, which are known to drown in guzzlers (LaRue, personal observation) definitely occur in the area but are missing from the table. As per the CDFW's Special Animals list of July 2020, American badger is listed as a California Species of Special Concern and as a fur-bearing mammal, desert kit fox is Fully Protected by CDFW. Adding these two species [and perhaps others, like loggerhead shrike (*Lanius ludovicianus*)] to the draft EA has limited value; what is more important is how can the guzzlers be designed to avoid mortality of these sensitive animals? We do not have the answer(s), but encourage the BLM and CDFW to discuss potential protective measures (e.g., avoiding fiberglass floors, treating the floor surfaces, installing rebar at shortened widths to preclude entry by larger animals, like badgers).

Although the following speculative statement is given on page 17, "It is impossible to determine whether the remains were washed in the guzzlers from routine filling or if the tortoises fell in and became trapped," having provided half of the data in Hoover's study, I'm convinced that *all* of the dead tortoises I found had drowned in the guzzlers. The aprons are constructed with raised edges around the peripheries, which effectively preclude a dead tortoise from being washed into the guzzler, as implied.

With regards to the following statement on page 17, "...the proposed guzzlers would be equipped with a roughened ramp or steps to allow tortoises to climb out," it is important that the roughened ramp extends as far back as possible into the reservoir. Ideally, fiberglass would not be used. But, if it is the only guzzler type available, the best scenario may be to paint the roughened surface across the entire bottom of the tank, or scarify it in some manner, so the slickened fiberglass surface is roughened to allow tortoises and other animals to find purchase, enabling them to leave the tanks. If *any* tortoises are found dead in any of the tanks, CDFW's commitment to remedying the situation, as given on page 11, must be implemented immediately. Even if this means emptying the tank until which time the cause of death can be eliminated. This is necessary if impacts are to be avoided, minimized, or mitigated, as given on page 22; and to ensure that there are no adverse effects to tortoises, as stated at the top of page 18.

With regards to CMA 1 on page 18, "The QB [qualified biologist] may be a BLM Wildlife Biologist or BLM Biological Science Technician," it is important that the biological qualifications not be limited to these assigned titles; the biologist(s) must have prior tortoise experience, not just an assigned title.

With regards to CMA 4 on page 19, please add that all flagging along wash-portions of the access routes will be removed, which is likely understood but not stated.

With regards to CMA 5 on page 19, "If the qualified biologist is available, the qualified biologist may move the desert tortoise from harm's way," we cannot envision a scenario where a tortoise would need to be handled. However, BLM should be aware and enforce the stipulation that in the

absence of a CDFW 2081 Incidental Take Permit for this project, which we understand is NOT being solicited, it is illegal for anyone to handle desert tortoise until which time the state take permit is secured. This prohibition also applies to CMA 9 on page 19. This prohibition also applies to the Federal Endangered Species Act and the need for a biological opinion to incidentally take or handle a desert tortoise or implement an action that is likely to adversely affect the tortoise by CDFW or BLM for the proposed action.

Given the following statement on page 20, “Direct effect[s] to wildlife will be positive as this project will make the current small game guzzlers accessible for desert bighorn sheep, mule deer, and pronghorn if they are reintroduced into the area,” we again point out that guzzlers may also pose a significant mortality factor to animals (Hoover’s “...173 other vertebrate animal species” lost in guzzlers). Although there is limited usefulness to amending the draft EA to make this statement, we do suggest that in addition to CDFW’s routine monitoring of the tanks, CDFW should develop and implement a scientifically based monitoring study to determine whether the guzzlers are incidentally taking the Mojave desert tortoise or other wildlife species. This would include the use of aquatic dip nets or other means to inspect the guzzlers for drowned animals, and that CDFW implement adaptive management measures immediately, which could include disabling or emptying the guzzlers, until which time the cause of death is remedied.

We appreciate this opportunity to provide input and trust that our comments will help protect tortoises during any authorized project activities. Herein, we ask that the Desert Tortoise Council be identified as an Affected Interest for this and all other BLM projects that may affect species of desert tortoises, and that any subsequent environmental documentation for this particular project is provided to us at the contact information listed above. We also ask that you acknowledge receipt of this letter as soon as possible so we can be sure our concerns have been received by the appropriate parties.

Regards,



Edward L. LaRue, Jr., M.S.

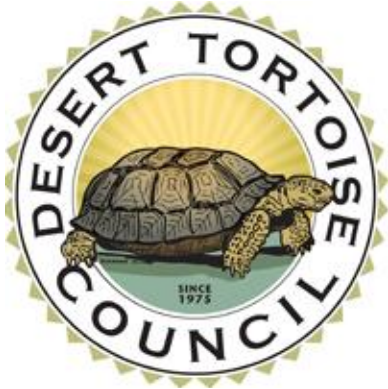
Desert Tortoise Council, Ecosystems Advisory Committee, Chairperson

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**Attachment 2. Chuckwalla R-5 Ship Creek Guzzler Repair Chuckwalla Mountains
Wilderness Environmental Assessment**



DESERT TORTOISE COUNCIL

3807 Sierra Highway #6-4514

Acton, CA 93510

www.deserttortoise.org

eac@deserttortoise.org

Via email and BLM NEPA ePlanning portal

November 5, 2022

Kristen Lalumiere
Bureau of Land Management
Palm Springs-South Coast Field Office
1201 Bird Center Drive
Palm Springs, CA 92262
KLalumiere@blm.gov

RE: Chuckwalla R-5 Ship Creek Guzzler Repair Chuckwalla Mountains Wilderness
Environmental Assessment (DOI-BLM-CA-D060-2021-0015-EA)

Dear Ms. Lalumiere,

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.

We appreciate this opportunity to provide comments on the above-referenced project. Given the location of the proposed project in habitats likely 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 Bureau of Land Management (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.

The Council reiterates it has continuously requested that the BLM contact us directly as an Affected Interest for all projects that may affect tortoises. This project was brought to our attention by one of our members, and not by the BLM. Our formal request of November 7, 2019 sent certified mail to Andrew Archuleta, District Manager of the BLM's California Desert District, and a copy sent certified mail to all field managers in the California Desert District is attached as a reminder. We are copying this comment letter to BLM California State Director, with the expectation that her office will be responsive to our persistent requests, and BLM will provide the Council with notification of proposed actions that may affect desert tortoises on lands managed by the BLM in California.

On the BLM National Environmental Policy Act (NEPA) ePlanning website, BLM posted an undated announcement that said, "the BLM will proceed through the NEPA process analyzing the proposed action, range of alternatives, and cumulative effects." In addition, BLM posted a copy of the subject environmental assessment (EA). However, we found no date for the initiation and closing of a public scoping period or comment period for the EA. Consequently, we are providing comments less than 15 days after the EA was posted with the hope that BLM will accept them, as the usual comment period for an EA by BLM is 15 to 30 days.

Description of Proposed Action and Alternatives

The proposed action is for the California Department of Fish and Wildlife (CDFW) and Society for the Conservation of Bighorn Sheep (SCBS) to replace a damaged, pre-existing water development or guzzler with a new, updated system. The purpose and need of the proposed action is to provide a reliable source of drinking water for desert bighorn sheep (*Ovis canadensis nelsoni*), a BLM sensitive species, because the current guzzler does not have sufficient capacity to capture and store water under current and future climate conditions. The replacement guzzler would be more resilient against predicted climate change variations including hotter, longer, drier seasons with more severe rain events.

Two alternatives are described and analyzed, the No Action Alternative and the Proposed Action Alternative.

No Action Alternative – BLM would not authorize work to replace the guzzler in the Chuckwalla Mountains Wilderness Area. No vehicle access or construction would occur.

Proposed Action Alternative – BLM would authorize the construction and maintenance of a 3-foot gabion basket base within a previously approved disturbance footprint to elevate water tanks out of the floodplain. The tanks would be covered with sand and sediment from the immediate wash area. A helicopter would be used to deliver three 2,300-gallon guzzlers via long-line, and deliver the first service of water to fill the tanks after installation. Trucks would transport equipment, staff, and volunteers to install the gabion, guzzlers, a wildlife accessible subterranean drinker, a remote monitoring system with satellite data to monitor water levels and function of the guzzler, and to conduct minor repairs to the existing pipeline from the dam.

The proposed work to replace the current guzzler is planned for three weekends in the fall of 2022 with 30 personnel at the site each day. Activities would not exceed this timeframe. The proposed action is located on BLM land in the Chuckwalla Mountains Wilderness Area in T.6 S., R. 16 E., Sec. 34, SE ¼ NW ¼. The elevation is 1,920 feet. The proposed project is located in designated critical habitat for the tortoise.

Access to the site to refill the tanks would occur when storm events do not provide enough water to the system. When the system is full, the water is expected to last for approximately two-and-a-half years.

In addition, four alternatives were considered but not analyzed in detail. These alternatives are:

- Alternative 1 – Using horses and mules;
- Alternative 2 – Hiking and carrying in all equipment and gear;
- Alternative 3 – Replacing drinker system with in-kind system from the 1970s; and,
- Alternative 4 – Driving and hiking in personnel, all equipment, tanks, and water.

These alternatives were dismissed because they would not be feasible without the use of a helicopter to transport and fill the tanks.

Comments

Proposed Action Alternative – In the EA, BLM says the construction phase of the Proposed Action Alternative would occur in the fall. Because tortoises are active in September and October and in the spring, we request that construction be implemented during the period from November to mid-February to avoid the “tortoise active season,” and not be implemented during forecasted rain events in the fall and winter. This schedule would reduce the likelihood of encountering a tortoise above ground or entering the project area during construction.

We are confused by BLM's different descriptions of where activities would be implemented to help mitigate the surface disturbance from the Proposed Action Alternative. On page 8 of the EA, BLM says, "upon departure CDFW will rake out, or equivalent/like action, all the off-route tracks near the intersection of Dupont Road, the designated OHV route." Farther down on the page, BLM says "Upon project completion, disturbed areas will be restored. It is not anticipated that any large plants will need to be removed during construction. All disturbed soil surfaces will be contoured and raked to match the surrounding terrain. Any rocks that are removed will be scattered back over the disturbed area. Upon project completion, vehicle and equipment tracks diverging from the identified access route leading into the washes will be raked over to discourage unauthorized OHV use." On page 18, BLM says, "After the project is completed, the temporary access route shall be rehabilitated using ripping, raking, and other accepted techniques." The EA is unclear whether the contouring/raking would occur on the vehicle route or include all areas that had surface disturbance (e.g., staging area and borrow area for tanks/gabions, etc.). Please clarify what actions would be implemented after the construction phase of the project is completed and whether additional mitigation would be implemented following maintenance activities.

Affected Environment

Page 12, Threatened or Endangered Species – In the EA, BLM says, "Based on USGS habitat this area is not considered prime tortoise habitat and densities are considered to be low." Please explain what USGS habitat is as no citation was provided. According to Berry (1977), concentrations of tortoises have been found in some of the major washes with microphyll woodlands, particularly in the region between the Chuckwalla and Chocolate mountains.

Environmental Effects

The Council has five concerns regarding the implementation of the Proposed Action Alternative – (1) the creation of a new vehicle route in critical habitat and a wilderness area with resulting long-term impacts to soils, vegetation, tortoises, and human access; (2) the attraction of predators to the area because of a newly-created reliable source of water; (3) the likelihood of tortoises and other small animals becoming entrapped or drowning in the guzzler; (4) the impacts to surface flow downstream/downslope from the guzzler; and (5) the incomplete analysis of the major indirect impacts to surface hydrology, soil moisture, vegetation, and the tortoise from implementation of the Proposed Action Alternative.

- (1) The creation of a new vehicle route in the Colorado Desert results in several direct and indirect impacts to the tortoise and tortoise habitat. During the three weeks of construction activities (120 vehicles trips – BLM 2022, page 17), subsequent maintenance activities (20 vehicle trips each – BLM 2022, page 17), and after construction and maintenance have occurred until the disturbed area has revegetated, which can potentially take several decades (Abella 2010), the public would see the new route created, likely consider it an open route, and use it.

BLM should ensure that the rehabilitation/restorations methods used for the vehicle route and other areas of temporary surface disturbance are effective. Abella and Berry (2016) reported that techniques such as recontouring to reestablish drainage patterns, can assist natural recovery of decommissioned routes. However, if BLM's intent is to successfully rehabilitate/restore the disturbed areas caused by implementation of the Proposed Action

Alternative (BLM 2022, page 8), BLM should include an *integrated set* of rehabilitation/restoration activities (e.g., reducing nonnative plants, augmenting native plants, etc.) and monitor the short- and long-term vegetation condition of the areas disturbed (Abella and Berry 2016). Most habitat restoration/rehabilitation efforts to date have focused on only one restoration activity (Abella and Berry 2016), which is what BLM is proposing in the EA. However, for successful restoration/rehabilitation, BLM should require implementation of (1) an integrated set of effective restoration activities; (2) construction of signs and barriers to prevent unauthorized OHV incursions; (3) monitoring the effectiveness of the restoration and the signs and barriers; and, (4) through monitoring, identify the need for additional restoration work and implement it (DeFalco and Scoles-Sciulla 2013).

As part of the Proposed Action Alternative, in the California Desert Conservation Area, BLM should require the project proponent to implement at the location of the surface disturbance a set of vegetation restoration activities that have been documented as effective to restore native vegetation. Because CDFW is a wildlife conservation agency and the tortoise is listed under the California Endangered Species Act (CESA), CDFW should readily cooperate with BLM in implementing an effective set of vegetation restoration activities at the temporary disturbance locations, as these activities will benefit both desert bighorn sheep and the tortoise.

The Proposed Action Alternative is located in the Chuckwalla Critical Habitat Unit for the tortoise under the Federal Endangered Species Act (FESA). Critical habitat is defined as specific areas within the geographic range occupied by the species on which are found those physical or biological features essential to the conservation of the species and which may require special management considerations or protection. For the Mojave desert tortoise, the physical and biological features essential for conservation of the species are (1) sufficient space to support viable populations within each of the recovery units and provide for movements, dispersal, and gene flow; (2) sufficient quantity and quality of forage species and the proper soil conditions to provide for the growth of such species; (3) suitable substrates for burrowing, nesting, and overwintering in burrows, caliche caves, and other shelter sites; (4) sufficient vegetation for shelter from temperature extremes and predators; and (5) habitat protected from disturbance and human-caused mortality (USFWS 1994).

The term “conservation,” as defined in Section 3(3) of the FESA, means “to use and the use of all methods and procedures which are necessary to bring an endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary,” i.e., the species is recovered and removed from the list of endangered and threatened species. Under the FESA and BLM’s Mitigation Policy and Handbook (BLM 2021a, 2021b), BLM should require the project proponent (i.e., CDFW) to fully compensate for the temporal loss of vegetation from project implementation in this critical habitat unit.

We request that BLM add additional Conservation Management Actions (CMAs) to the EA that would require CDFW to implement (1) an effective set of vegetation activities in the areas with temporary disturbance (e.g., routes used in the wilderness area and off of designated open OHV routes, staging areas, etc.); (2) construction of signs and barriers to prevent OHV incursions; (3) monitoring the effectiveness of the restoration and the signs and barriers; and, (4) through monitoring, identify the need for and additional restoration work and implement it.

- (2) Creating a reliable source of water in the Colorado Desert may attract numerous wildlife species including predators of the tortoise and desert bighorn sheep. In the EA, BLM says the primary predator of bighorn sheep is the coyote (*Canis latrans*), with bobcat (*Lynx rufus*) and golden eagle (*Aquila chrysaetos*) as predators of lambs. We also note that Yuma puma (*Felis concolor browni*) is a likely predator of bighorn sheep that occurs in the region. Major predators of the tortoise include the coyote and common raven (*Corvus corax*).

To determine wildlife use at this guzzler, BLM should require monitoring, which can be implemented remotely. If the monitoring indicates use of the guzzler by tortoise predators, BLM should require the guzzler be modified to prevent or deter these predators from accessing water from the guzzler. If design modifications are necessary to accomplish this, we request that they are monitored for the first year to determine their effectiveness.

- (3) Tortoises and other small animals may become entrapped or drown in the guzzler. We did not find a description or drawing of the guzzler design in the EA. BLM provided a reference (Andrew et al. 2001) that reported the results of examining 13 guzzlers during two months in 1998 in the Colorado Desert of California for vertebrate remains. Seven guzzlers had vertebrate remains from at least 30 individual animals but none were tortoise remains. Tortoise deaths in upland game guzzlers for birds has been documented (Hoover 1995).

On page 15 of the EA, BLM says, “To mitigate the likelihood of a tortoise drowning in a drinker, the proposed drinkers would be equipped with a roughened ramp as well as steps to allow tortoises to climb out. Because of the escape ramp and mitigation measures used for construction and maintenance, this project is not likely to adversely affect desert tortoises or adversely modify critical habitat.” While the ramp and step design may seem effective, concrete drinkers promote algae buildup (Brigham and Stevenson 2003) making the rough surface slippery and impeding an animal’s ability to escape the drinkers. Consequently, we request that BLM investigate the escape ramp/step method further to determine whether other design modifications such as ridges may be more effective to eliminate algal growth or a slippery surface. When the final experimental design for the escape ramp is implemented, we request the drinkers be monitored remotely to determine its effectiveness, and if not effective, that measures be implemented to correct the deficiency.

- (4) We are concerned the placement of the guzzler would substantially alter the direction and volume of downstream surface flow. The capacity of the tanks would increase compared to the existing guzzler. From the description of the Proposed Action Alternative, the tanks would be located on a raised gabion platform in a wash. We conclude this design would substantially reduce surface flow downstream/downslope from the guzzler thereby adversely impacting existing soils, soil moisture, and vegetation. Reducing these flows would likely result in a reduction in survival and recruitment of vegetation needed by wildlife species including tortoises for cover that provides protection from predators and thermal extremes and food for tortoises, bighorn sheep, and other herbivores.

- (5) For the project footprint, BLM says, the Proposed Action Alternative would result in direct impacts to 8.4 acres of land – 6 acres from project access route (temporary), 0.11 acre from guzzler placement (permanent), 2 acres from camping/staging area (temporary – inside wilderness), and 0.3 acre from camping/staging area/landing zone (temporary – outside wilderness). We did not find any analyses of indirect impacts to soils, vegetation, or surface hydrology from implementation of the Proposed Action Alternative or indirect impacts to the tortoise. We request that BLM revise the Environmental Effects section of the EA to include these missing analyses of the indirect impacts to these resources.

In addition, because concentrations of tortoises have been found in some of the major washes with microphyll woodlands (Berry 1977), we suggest that BLM reassess the direct and indirect impacts to the tortoise as the Proposed Action Alternative is using a braided wash to access the project site for construction and maintenance. We found no analysis of impacts to the tortoise if maintenance occurs during the active season for the tortoise or during/following a rainfall event. Using a wash as a roadway that tortoises also use may result in injury or mortality from a vehicle crushing a tortoise. This impact should be included in the EA.

Specific Comments

Page 16, Threatened and Endangered Species, Desert tortoise (*Gopherus agassizii*) – In the EA, BLM says, “The habitat is not optimal for desert tortoises (Category 3) and their densities are low near the project site.” In looking at the map of modeled habitat for the Mojave desert tortoise (Nussear et al. 2009) part of the project area appears to be in tortoise habitat ranked as 0.7 or greater. The greater the number toward 1.0, the higher the value of the tortoise habitat. In addition, the USFWS (2011) says “[i]n the Colorado Desert Recovery Unit, desert tortoises are found in the valleys, on bajadas, desert pavements, rocky slopes, and in the broad, well-developed washes...” The Proposed Action Alternative includes using a broad wash to access the guzzler site. We remind BLM that habitat categories for the tortoise were developed in 1991, but in 1994, the USFWS designated critical habitat for the tortoise. The project area is in the Chuckwalla Critical Habitat Unit (USFWS 1994a), which supersedes the importance of these outdated categories.

Page 17, Threatened and Endangered Species, Tortoise Mitigation Measures – BLM says, “To the extent possible, previously disturbed areas within the project site shall be utilized for the stockpiling of excavated materials, storage of equipment, and the location of office trailers and parking of vehicles.” We request that “and the location of office trailers” be removed from the EA as office trailers would not be allowed at the project site or in the wilderness area.

Page 18, Invasive Plant Species – BLM says, “The Reduced Vehicle Alternative would have similar impacts as the Proposed Alternative.” Because the term “Reduced Vehicle” was not previously used in the EA to name/describe an alternative, we are unsure which alternative BLM is referring to. Of the four alternatives described but not analyzed in the EA, Alternatives 1, 2, and 4 could meet this definition of reduced vehicle use. Please clarify the use of this term in the EA.

Page 18, Conservation and Management Actions 5 and 9 – “If the qualified biologist is available, the qualified biologist may move the desert tortoise from harm's way.” Moving a tortoise is considered incidental take under CESA. BLM or CDFW would need to obtain a 2081 permit from CDFW for incidental take to be fully authorized.

BLM’s analyses in the NEPA document should implement the CEQ’s (1997) guidance on analysis of cumulative effects. “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.”

The CEQ provides eight principles of cumulative effects analysis (CEQ 1997, Table 1-2). These are:

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.

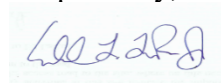
Analysts tend to think in terms of how the resource, ecosystem, and human community will be modified given the action's development needs. The most effective cumulative effects analysis focuses on what is needed to ensure long-term productivity or sustainability of the resource.

In BLM's NEPA Handbook (2008), BLM references this CEQ document as guidance to be used in analyzing cumulative effects. For the tortoise, numbers 5 through 8 are especially important and relevant given the tortoise's slow growth rates of 12 to 20 years to reach sexual maturity, and the slow growth of desert vegetation.

Please ensure these eight principles are analyzed in the EA for each alternative for the tortoise.

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 Mohave desert tortoise, 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
BLM California State Director, Karen Mouritsen, kmouritsen@blm.gov
Brandy Wood, Region 6 – Desert Inland Region, California Department of Fish and Wildlife
brandy.wood@wildlife.ca.gov

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