DESERT TORTOISE COUNCIL
3807 Sierra Highway #6-4514
Acton, CA 93510
www.deserttortoise.org
eac@deserttortoise.org

Via email only

October 28, 2025

Aaron Jacobsen
Bureau of Land Management, Needles Field Office
1303 S. Highway 95
Needles, CA 92363
ajacobsen@blm.gov, BLM_CA_Web_EC@blm.gov

RE: Desert Star Critical Minerals Drill Project – Categorical Exclusion (DOI-BLM-CA-D090-2025-0029-CX)

Dear Mr. Jacobsen,

The Desert Tortoise Council (Council) 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 northern Mexico, the Council routinely provides information and other forms of assistance to individuals, organizations, and regulatory agencies on matters potentially affecting desert tortoises within their geographic ranges.

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

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

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

This status, in part, prompted the Council to join Defenders of Wildlife and the Desert Tortoise Preserve Committee (DTPC) 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 California Fish and Game 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).

Project Information

Unless otherwise noted, project information given in the section numbers referenced below are from BLM's Plan of Operations Desert Star Critical Minerals Drill Project (herein, "PoO")[1]. As given in Section 4, the project is located in San Bernardino County, California, north of Interstate 15 (I-15), approximately 40 miles southwest of Las Vegas, NV, and 100 miles northeast of Barstow, CA. Access is via exit 291 on I-15, then right onto Yates Well Road, then left onto Silverton Road, then onto Densmore Drive to Colosseum Road, then proceed along Colosseum Road for 3.4 miles, then turn left (SW) on a dirt road and proceed 0.2 miles to the project site (claim DS-52). The project area is located on the Clark Mountain and Ivanpah Lake 7.5-minute United States Geological Survey (USGS) topographic quadrangle maps (see Figures 1 and 2 on the next page).

According to Section 6.1, "BMM [Bayan Mining and Minerals Nevada LLC] plans to drill eight (8) holes from eight (8) drill pads utilizing reverse circulation (RC) drilling. The RC drilling compressed air carries the rock cuttings from the bit to the surface through the drill pipe. At the surface, the cuttings are discharged into a cyclone, where they are separated from the air and collected in sample bags at 1m intervals."

[1] https://www.dropbox.com/t/2UhBZuBmbgfgRfeG

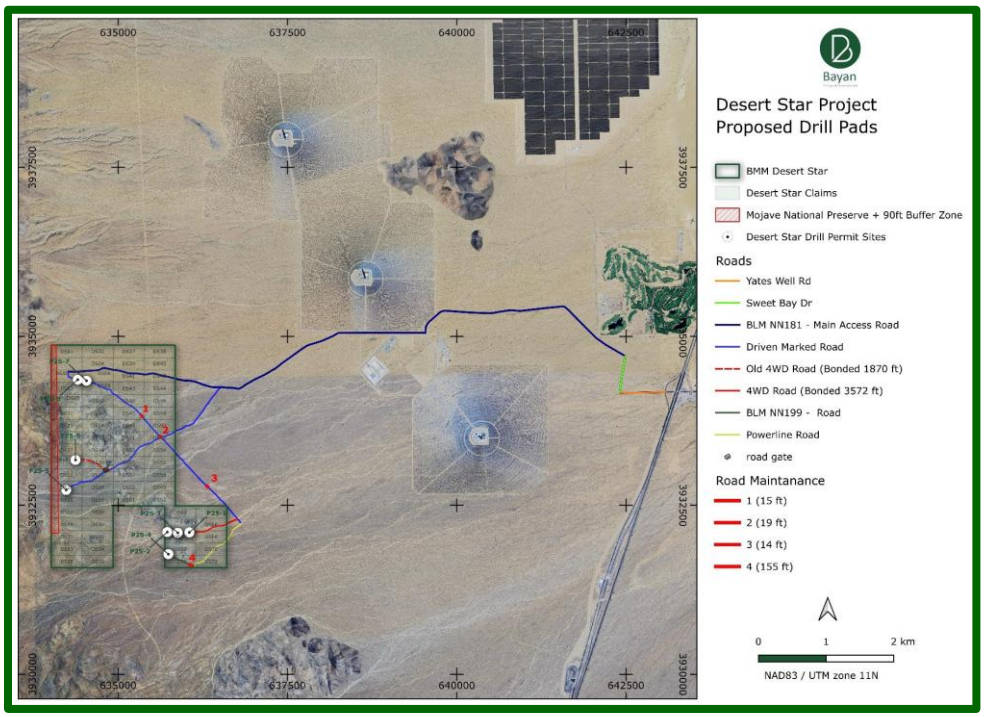


Figure 1 - Project Access Map (Source, BLM PoO)

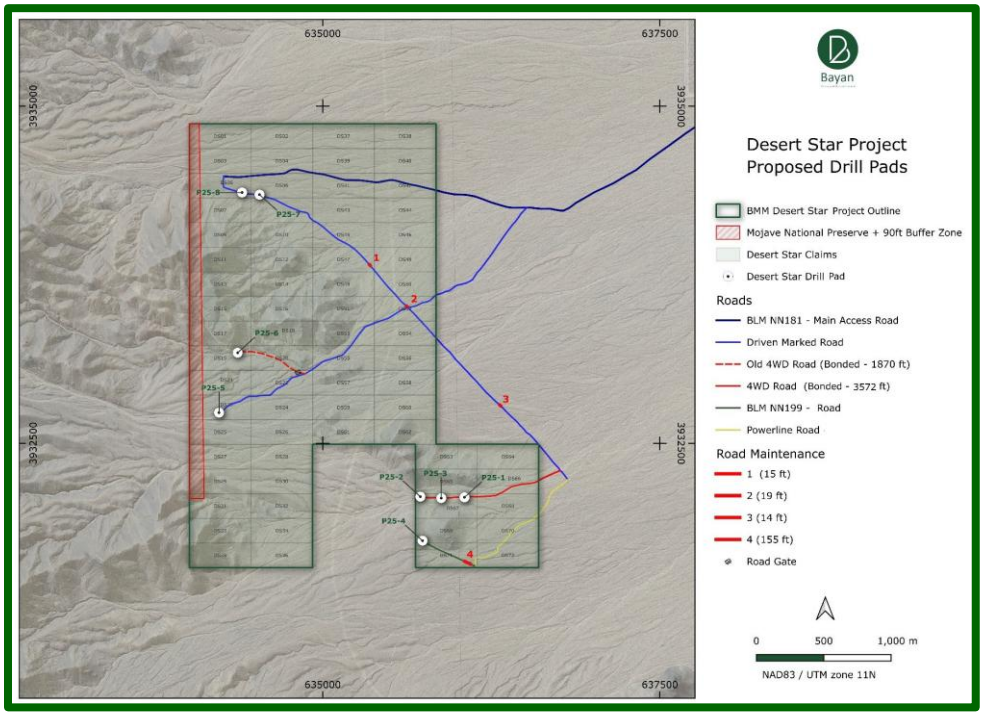


Figure 2 - Project Map (BLM PoO)

“Drill pads will be located on previously disturbed ground with access from existing roads. Routine road maintenance may be required and will be consist of smoothing ruts, filling holes with filling materials, grading and re-establishing water bars when necessary. Drilling will be conducted with one drill rig. Drill hole[s] will not be more than 656 feet (200m) in depth. Drilling will commence following BLM approval of this PoO. Public access will not be inhibited during operations. Active drill sites and access routes will be posted with signage for safety.”

As per Section 6.2, “Drill pad dimensions listed in the Bond calculator are 12 feet x 25 feet with a cut of 1.5 foot. The pads are all on disturbed ground and existing roads. Existing roads will be improved prior to commencing drilling (Figure 1 and 2). The drill pad will require minimal site preparation for access. Care will be taken not to exceed the pad dimensions and critical plants will be flagged for protection that are near the road and pad. The estimated total disturbance in the spreadsheet is 0.8 acres, including maintenance to existing roads. Eight holes (8) are planned, each with a maximum proposed depth of 656 feet (200m). After completing each hole, the drill hole will be plugged pursuant to state regulations.”

As per Section 6.4, “Drilling should require twenty (20) 2 x 12-hour shifts. The drill program will be 30 days total with required time for mobilisation [sic] and demobilisation [sic] and moving between the drill holes. Each shift will consist of a Supervisor, Driller, Helper and Sampler (4-person Crew), the water truck will be driven by the supervisor as needed. There will be two geologists managing the drill program. A company representative will be onsite. Drilling is planned when the PoO is authorized. Drill sites will be accessed from approved roads with no cross-country travel. The sumps will be dug with a backhoe and the material removed will be stored for later reclamation.”

As per Section 6.5, “BMM anticipates that the Project activities will commence as soon as the bond calculation is approved and a letter acknowledging the bond placement is sent to Bayan Mining and Minerals from the BLM California State Office. Activities are expected to last approximately 30 days. Reclamation activities will likely be completed in the year that operations are permitted; however, revegetation activities, if required, are limited by the time of year during which they can be effectively implemented. Site conditions or yearly climatic variations may require that this schedule be modified to achieve revegetation success.”

As per Section 6.7, “Two sensitive species identified - San Bernardino Milk Vetch and Desert Mallow. Mature vegetation, such as Joshua Trees, Mojave Yuccas, and California Juniper should be avoided.”

As per Section 7, “An Environmental Assessment (EA) may be required in accordance with the National Environmental Policy Act (NEPA) and the Bureau of Land Management’s regulations for the proposed drilling operations. The purpose of the EA is to evaluate the potential environmental impacts of the project and ensure mitigation measures are sufficient to prevent unnecessary or undue degradation [as required under the Federal Land Policy and Management Act (FLPMA)].

(Section 7 continued) Key Components of the Environmental Assessment:
1. Biological Resources Survey:

o A comprehensive flora and fauna survey will be conducted prior to the start of any surface-disturbing activities. This survey will focus on identifying the presence of sensitive species, such as the Agassiz's Desert Tortoise, Desert Burros, and rare or endemic plants (e.g., San Bernardino Milk Vetch, Desert Mallow).

o Habitat Assessment: The survey will evaluate the project area for critical habitat features, such as burrows, nesting sites, or other essential resources that could be affected by drilling.

o Mitigation Plans: Any identified sensitive species or habitats will be flagged and avoided to the maximum extent possible. Species relocation (where permitted) and habitat restoration post-project will be implemented."

Council's Comments

Despite our persistent requests for California offices of the BLM to identify the Council as an affected interest, including a certified letter dated November 7, 2019 and delivered to the District Manager, California Desert District[2], it was a third party, not the BLM, that contacted the Council about this project on October 7, 2025. Since the notice was released to the public and published on the BLM's website on September 29, 2025, its delivery to the Council would not have been directly impacted by the current government shutdown, which began two days later, on October 1, 2025. In any case, we fully expect that a draft EA will be developed to analyze the direct, indirect, and cumulative impacts to the tortoise/tortoise habitat, including habitat needed for connectivity of populations and to adapt to climate change, before BLM issues a decision on whether to approved the proposed project. This means no ground disturbance prior to draft EA distribution. Herein we request that the Council be contacted directly when any subsequent environmental documents are released to the public.

A Department of Interior (DoI) website (https://www.doi.gov/oepc/nepa/categorical-exclusions) indicates, "The National Environmental Policy Act (NEPA) defines categorical exclusions (CEs) as a category of actions that a Federal agency has determined normally does not significantly affect the quality of the human environment [42 USC 4336e (1)]. In cases where a CE applies, neither an environmental assessment (EA) nor an environmental impact statement (EIS) is required unless there are extraordinary circumstances."

Based on the limited information given in the PoO, including the location of the proposed site and access routes located in and adjacent to known tortoise habitats, the Council contends that the BLM's CE is likely to adversely affect desert tortoises. In 43 CFR 46.215 Categorical exclusions: Extraordinary circumstances, the Department of the Interior lists the criteria for extraordinary circumstances. These include:

"(f) Have a direct relationship to other actions with individually insignificant but cumulatively significant environmental effects."

"(h) Have significant impacts on species listed, or proposed to be listed, on the List of Endangered or Threatened Species or have significant impacts on designated Critical Habitat for these species."

[2] https://www.dropbox.com/scl/fi/jmsj2ex2qd3ck6qfxg9wm/BLM-CDCA-District-Manager-DTC-as-an-Affected-Interest.11-7-2019.pdf?rlkey=jm6hvrkysm36lnirxjoh9vrdg&dl=0

> "(l) Contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act and EO 13112)."

Because of the location of the proposed project in areas with a high probability of tortoise habitat in the Ivanpah Valley (Nussear et al. 2009, Gray et al. 2019, Parandhaman 2023, and others), and the documented importance of the Ivanpah Valley for habitat connectivity for the tortoise (Gray et al. 2019, Hromada 2022) and as a hotspot of sequence divergence, sequence diversity and gene diversity (Vandergast et al. 2013), any additional anthropogenic disturbance or use such as the proposed project would likely adversely impact this rare, dwindling, and important habitat for the tortoise. Gray et al. (2019) stated that "within and proximate to the Ivanpah Valley . . . this region represents some of the highest predicted habitat potential for the Mojave desert tortoise." Further, Hromada (2022) stated that "the Ivanpah Valley . . . is an important area for range-wide connectivity of the species (Hagerty and Tracy 2010; Averill-Murray et al. 2013)." This connectivity is needed for the survival and recovery of the tortoise (Averill-Murray et al. 2021).

Invasive plants can exploit areas of surface disturbance because they often enter an ecosystem and/or spread following disturbances that create available niche space. Practices that disturb soil and remove vegetation, such as blading and bull dozing, open up space and resources for invasive species to colonize and spread (Karban et al. 2024).

Given this information and that the proposed project is likely an initial action that would result in future actions that would occur in additional areas of important tortoise habitat in the Ivanpah Valley thus having a direct relationship to other actions with "cumulatively significant environmental effects" [i.e., extraordinary circumstance (f); these significant impacts would be to a threatened species = extraordinary circumstance (g); and the additional ongoing surface disturbance and transport of vehicles and equipment from outside the area would transport invasive plant species to the project area = extraordinary circumstance (l)], these three extraordinary circumstances would render the CE as an inappropriate NEPA document to analyze the impacts to the human environment from the proposed project.

It is our understanding that a CE under NEPA should not be issued for a project that may affect a federally listed Threatened or Endangered species. The Endangered Species Act (FESA) imposes an additional layer of review, requiring that when a proposed action may affect a listed species or its critical habitat, the lead agency must initiate Section 7 consultation with the U.S. Fish and Wildlife Service (USFWS).

If such consultation is required, the presence of a Threatened or Endangered species typically precludes the use of a CE, unless the consultation results in a "no effect" or "not likely to adversely affect" determination that is formally documented.

Accordingly, we request that the agency provide documentation of the Section 7 consultation results or biological survey reports that unequivocally determine the project area does not represent desert tortoise habitat. Without such documentation, a CE would be inappropriate, and the project should proceed under a formal EA or EIS, as required by NEPA and the ESA.

Since the PoO does not provide a copy of any biological surveys that were performed, the Council cannot determine whether appropriate survey methodologies were implemented for the tortoise (USFWS 2019) or if the conclusions given in the PoO are accurate. Therefore, we cannot independently ascertain if tortoises may be affected directly by exploratory drilling with the limited information provided.

Although Section 6.7 of the PoO indicates that only "Two sensitive species [were] identified - San Bernardino Milk Vetch and Desert Mallow," the 22 photographs given in Figures 3 through 10 in the PoO depict ideal, likely occupied habitats of the desert tortoise. Given the proximity of the sites to the Ivanpah Solar Electric Generating System (ISEGs) sites depicted in Figure 1 above, where hundreds of tortoises were displaced during site development, and the identification of high potential tortoise habitat by Nussear et al. (2009), Gray et al. (2019), and Hromada (2022), the Council presumes that tortoises occur/use the project area, yet they are not listed among the sensitive species identified for the project. Existing and future requisite biological survey reports should be included in the draft EA.

Appendix I, Conservation and Management Actions and Additional BLM & [US]FWS Proposed Conservation Actions of the PoO (which also lacks page numbers) lists "Conservation and Management Actions for the Protection of desert tortoise and other wildlife species," although the PoO does not identify desert tortoise as a sensitive species that may be affected. There are then 15 protective measures, presumably identified by the proponent, none of which mentions desert tortoises.

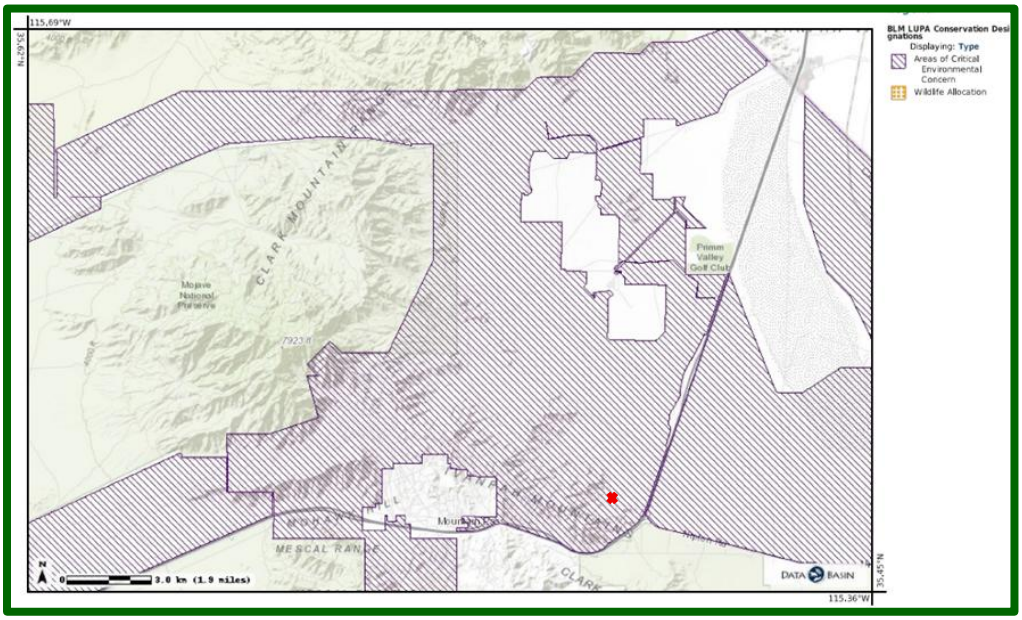
Eight protective measures are then identified in the section entitled, "Additional BLM & [US]FWS Proposed Conservation Actions," which implies that desert tortoises may be encountered during exploratory activities. These eight measures are a truncated list of typical protective measures required by the BLM and/or USFWS. For example, the measures do not include typical protective measures such as delineating impact areas and restricting impacts to those areas; prohibiting firearms onsite; preconstruction surveys of the drill sites to ensure no tortoise burrows are within the 12 x 25-foot impact area; requiring clean work sites with prompt removal of refuse; etc. These measures address actions to minimize direct impacts. They do not address indirect or cumulative impacts to the tortoise/tortoise habitat including connectivity areas needed to provide tortoise-occupied linkage habitats.

We also note that the following statement, "4. Personnel shall look under vehicles and equipment before moving them," fails to indicate that personnel are looking for desert tortoises that may have crawled beneath the vehicles or what to do if a tortoise is encountered.

We also take exception to the following statement: "6. You [construction workers?] are not allowed to move a tortoise (*unless in immediate harm's way and how to do that*)" [*emphasis added*]. Since the tortoise was federally-listed in 1989 on an emergency basis, construction workers have been informed that only authorized biologists and biological monitors are to handle tortoises, and then only if they are permitted to do so in project-specific federal and pertinent state permits, such as biological opinions and incidental take permits (in California). The exception given in Measure 6 that would allow construction workers to move tortoises if "in immediate harm's way" does not reflect current management on active construction sites and would be in violation of the FESA unless a biological opinion is issued for this project. It is our understanding that a CE does not authorize tortoises to be handled.

As given above in Section 6.5, the proponent proposes to begin drilling activities as soon as the "bond calculation is approved," yet as given in Section 7, an EA "may be required" for drilling exploratory activities. Again, we contend that a draft EA must be prepared as required by NEPA. Since these dates may conflict with one another, the Council believes that it is prudent that there not be any ground disturbance until the draft EA is prepared, circulated to the public, and the BLM receives formal input from the public and other agencies [particularly the USFWS and CDFW] that will likely identify protective measures (beyond the eight measures listed in the PoO) that will govern exploratory activities. CDFW may require a section 2081 incidental take permit. Consequently, the project proponent should coordinate with CDFW to determine what their requirements are for compliance with CESA.

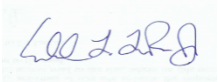
Our final comment pertains to the BLM's omission in the PoO that the proposed drilling activities are included within the Ivanpah Valley Area of Critical Environmental Concern (ACEC), as shown in the following BLM figure (approximate location at the ✖symbol). The draft EA should describe the ramifications of proposing drilling activities that may lead to mining within this ACEC, which we understand was established to protect tortoises.



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 Council wants to be identified as an Affected Interest for this and all other projects funded, authorized, or carried out by the BLM that may affect desert tortoises, and that any subsequent environmental documentation for this project (e.g., either the draft EA or CE) is provided to us at the contact information listed above. Additionally, we ask that you notify the Council at eac@deserttortoise.org of any proposed projects that the 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 the 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

Cc: Ron Nuckles, Field Manager, Needles Field Office, Bureau of Land Management, rnuckels@blm.gov
Brian Croft, Assistant Field Supervisor, Palm Springs Fish and Wildlife Office, U.S. Fish and Wildlife Office, brian_croft@fws.gov
Annelise Hill, Environmental Review, U.S. Environmental Protection Agency, hill.annelise@epa.gov
Peter Sanzenbacher, Mojave Desert Division Supervisor, peter_sanzenbacher@fws.gov
Heidi Calvert, Regional Manager, Region 6, Inland and Desert Region, California Department of Fish and Wildlife, Heidi.Calvert@wildlife.ca.gov
Steven Recinos, Environmental Scientist, Region 6, Inland Deserts Region, California Department of Fish and Wildlife, steven.recinos@wildlife.ca.gov

Literature Cited

Averill-Murray, R.C., C.R. Darst, N. Strout, and M. Wong. 2013. Conserving Population Linkages for the Mojave Desert Tortoise (*Gopherus agassizii*). Herpetological Conservation and Biology 8(1):1 – 15. https://www.dropbox.com/scl/fi/ibb6p4vynv0xtsxjgged3/Averill-Murray-et-al-2013-Conserving-population-linkages-for-the-Mojave-Desert-tortoise.pdf?rlkey=o8x8502ygdso2f4d3mp57bwwq&dl=0

Averill-Murray, R.C., T.C. Esque, L.J. Allison, S. Bassett, S.K. Carter, K.E. Dutcher, S.J. Hromada, K.E. Nussear, and K. Shoemaker. 2021. Connectivity of Mojave Desert tortoise populations—Management implications for maintaining a viable recovery network. U.S. Geological Survey Open-File Report 2021–1033, 23 p., https://doi.org/ 10.3133/ ofr20211033. https://pubs.usgs.gov/of/2021/1033/ofr20211033.pdf

Berry, K.H., L.J. Allison, A.M. McLuckie, M. Vaughn, and R.W. Murphy. 2021. *Gopherus agassizii*. The IUCN Red List of Threatened Species 2021: e.T97246272A3150871. https://dx.doi.org/10.2305/IUCN.UK.2021-2.RLTS.T97246272A3150871.en

[CDFW] California Department of Fish and Wildlife. 2024a. Status Review for Mojave Desert Tortoise (*Gopherus agassizii*) Report to the Fish and Game Commission, February 2024. https://nrm.dfg.ca.gov/documents/ContextDocs.aspx?cat=CESA-Listing

[CDFW] California Department of Fish and Wildlife. 2024b. 2022-2024 News Releases. California Fish and Game Commission Holds Hybrid Meeting, April 23, 2024. https://wildlife.ca.gov/News/Archive/california-fish-and-game-commission-holds-hybrid-meeting11

[Commission] California Fish and Game Commission. 2025. CESA, Petitions to List Species Under the California Endangered Species Act, Finalized Petitions. https://fgc.ca.gov/CESA#1089124-mojave-aka-agassizs-desert-tortoise-2025 https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=232827&inline

Defenders of Wildlife, Desert Tortoise Preserve Committee, and Desert Tortoise Council. 2020. A Petition to the State of California Fish And Game Commission to move the Mojave desert tortoise from listed as threatened to endangered. https://defenders.org/sites/default/files/2020-03/Desert%20Tortoise%20Petition%203_20_2020%20Final_0.pdf

Gray, M.A., B.G Dickson, K.E. Nussear, T.C. Esque, and T. Chang. 2019. A range-wide model of contemporary, omni-directional connectivity for the threatened Mojave desert tortoise, Ecosphere 10(9)e02847. 10.1002/ecs2.2847. https://esajournals.onlinelibrary.wiley.com/doi/pdfdirect/10.1002/ecs2.2847

Hagerty, B.E. and C.R. Tracy. 2010. Defining population structure for the Mojave Desert Tortoise. Conservation Genetics 11:1795–1807.

Hromada, S.J. 2022. The genes must flow: using movement ecology to understand connectivity of Mojave desert tortoise (*Gopherus agassizii*) populations in altered landscapes. (Doctoral dissertation, University of Nevada, Reno).

Karban, C.C, J.E. Lovich, S.M. Grodsky, and S.M. Munson. 2024. Predicting the effects of solar energy development on plants and wildlife in the Desert Southwest, United States. Renewable and Sustainable Energy Reviews 205 (November 2024): 114823. https://www.sciencedirect.com/science/article/abs/pii/S1364032124005495?via%3Dihub

Nussear, K.E., T.C. Esque, R.D. Inman, L. Gass, K.A. Thomas, C.S.A. Wallace, J.B. Blainey, D.M. Miller, and R.H. Webb. 2009. Modeling habitat of the desert tortoise (*Gopherus agassizii*) in the Mojave and parts of the Sonoran Deserts of California, Nevada, Utah, and Arizona. U.S. Geological Survey Open-File Report 2009-1102, 18 p. https://pubs.usgs.gov/of/2009/1102/ofr20091102.pdf

Parandhaman, A. 2023. The impacts of climate and land use Change on Mojave desert tortoise (*Gopherus agassizii*) habitat suitability and landscape genetic connectivity. (Doctoral dissertation, University of Nevada, Reno).

[USFWS] U.S. Fish and Wildlife Service. 2019. Preparing for any action that may occur within the range of the Mojave desert tortoise (*Gopherus agassizii*). USFWS Desert Tortoise Recovery Office. Reno, NV. October 8, 2019. https://www.fws.gov/sites/default/files/documents/Mojave%20Desert%20Tortoise_Pre-project%20Survey%20Protocol_2019.pdf

Vandergast, A.G., R.D. Inman, K.R. Barr, K.E. Nussear, T.C. Esque, S.A. Hathaway, D.A. Wood, P.A. Medica, J.W. Breinholt, C.L. Stephen, A.D. Gottscho, S.B. Marks, W. B. Jennings, and R.N. Fisher. 2013. Evolutionary Hotspots in the Mojave Desert. Diversity 2013(5): 293-319; doi:10.3390/d5020293. https://www.mdpi.com/1424-2818/5/2/293