



DESERT TORTOISE COUNCIL

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Via BLM NEPA ePlanning Portal and email

October 5, 2026

Bureau of Land Management
ATTN: Michelle Campeau
176 East D.L. Sargent Drive
Cedar City, UT 84721
BLM_UT_SilverRock@blm.gov

RE: Silver Rock Transmission Line Project in Millard, Beaver, and Iron Counties, UT and Lincoln and Clark Counties, NV Scoping Comments (DOI-BLM-UT-0000-2026-0006-EIS)

Dear Ms. Campeau,

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).

Description of the Proposed Action

On September 3, 2026, the Bureau of Land Management (BLM) published a Notice of Intent (NOI) to prepare an environmental impacts statement for the Silver Rock Transmission Line Project (Project) in Utah and Nevada (BLM 2026). The description of the proposed action is taken from this BLM document.

BLM received a right-of-way (ROW) application from Silver Rock Transmission, LLC (Applicant), a subsidiary of Pattern Energy, to construct up to two new open access high-voltage interstate transmission lines and ancillary Project facilities with a nominal voltage of up to 600 kilovolts, extending approximately 330 miles from Millard County, Utah, to Clark County, Nevada. The Project would be located primarily on BLM-managed lands within the Fillmore and Cedar City Field Offices in Utah and the Caliente and Las Vegas Field Offices in Nevada. The Project also includes other federal (Bureau of Reclamation (BOR)), private, and state lands, each

with their own permitting requirements. The Project would use a variety of structures within a combined ROW width of 450 to 650 feet and a siting corridor of up to 2,500 feet.

In addition to the proposed route (Figures 1 and 2), the Applicant identified three alternative routes. No information was provided on these alternative routes or their locations.

In addition to the requested BLM ROW grant under Title V of the Federal Land Policy and Management Act (FLPMA), the Applicant anticipates needing additional permits and authorizations including federal environmental authorizations (i.e., Bald and Golden Eagle Protection Act, Federal Endangered Species Act (FESA), National Historic Preservation, and other laws and regulations determined to be applicable to the Project).

The purpose of the Project is to “help facilitate BLM's geothermal leasing activities in eastern Nevada and western Utah by providing a viable transmission path to market for next-generation geothermal developments” (<https://www.permits.performance.gov/permitting-project/fast-41-coveredprojects/silver-rock-transmissionproject>; accessed September 30, 2026).

BLM is initiating public scoping with the publication of this Notice. BLM requests that the public submit comments concerning the scope of the analysis, potential alternatives, and identification of relevant information and studies.

Comments on the Proposed Action

In searching for information for the proposed Project, we learned that Silver Rock Transmission, LLC, is a subsidiary of Pattern Energy. According to Pattern Energy’s website, “Our approach is rooted in early engagement, transparency, and collaboration with local stakeholders, environmental organizations, and Tribal partners. We design and operate projects to meet or exceed federal, state, and local environmental standards, applying innovative solutions to minimize impacts and restore habitats” (accessed 10/2/2026 <https://patternenergy.com/projects/silver-rock-transmission/#:~:text=Silver%20Rock%20Transmission%20is%20an,Silver%20Rock%20Transmission%20will%20provide>

Notification of the Project

Although the Council has submitted dozens of comment letters to BLM requesting that the Council be considered an Affected Interest for projects that occur in the range of desert tortoise. The Council submitted certified letters making this request to every BLM district manager in Utah and Nevada with management authority over the distribution of the Mojave desert tortoise. Despite these written submission to BLM, the Council received no notification of this proposed Project and the opening of the public scoping comment period. In contrast, on July 29, 2026, BLM notified the Council of the public scoping period for the Mosey Solar Project in southern Nevada.

For the Mosley Solar Project, the Council received notification of the public scoping period from BLM and the Council noted its appreciation. Conducting public scoping by contacting previously

9/3/2026

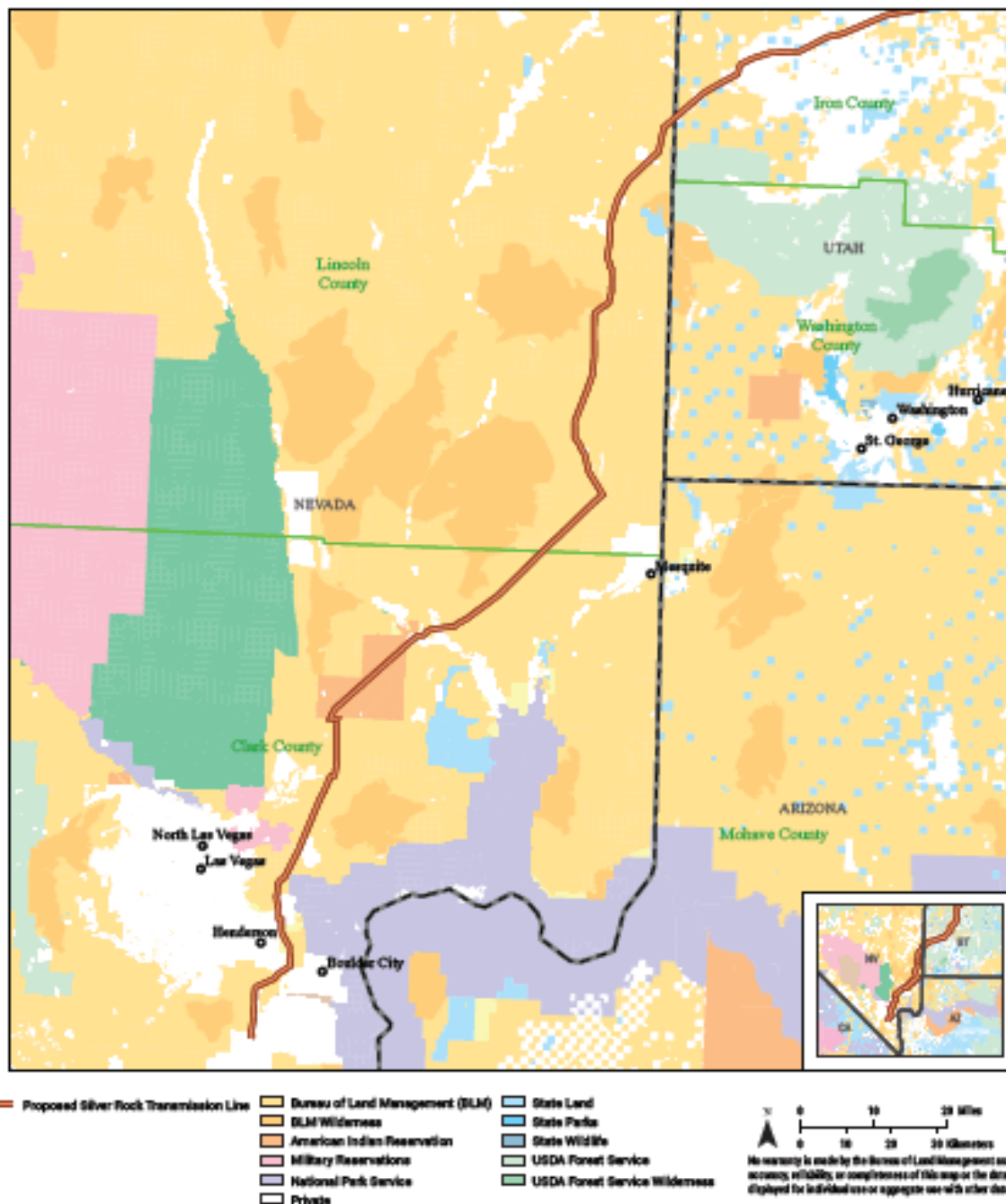


Figure 1. Silver Rock Transmission Project, Nevada segment of entire route.



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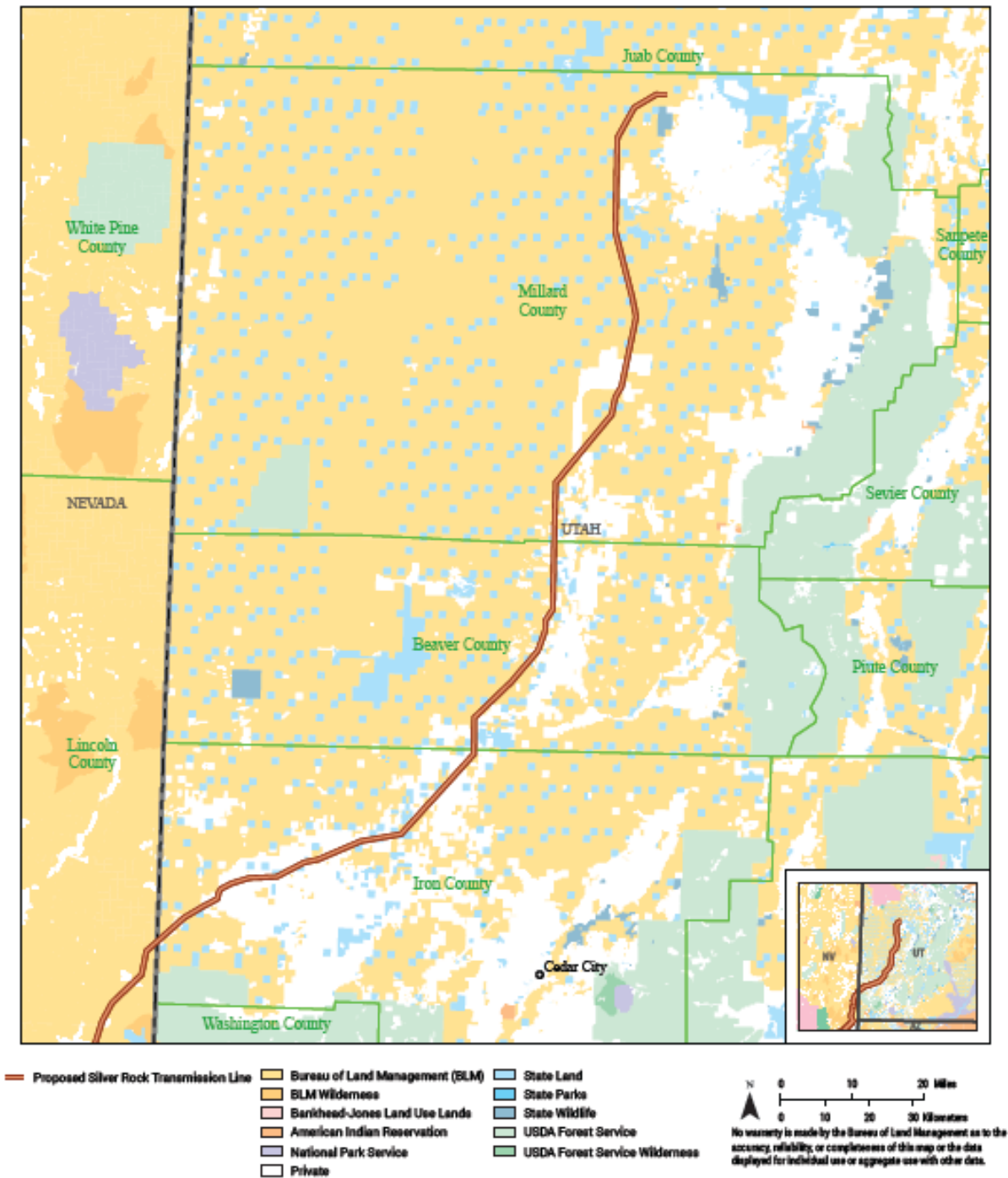


Figure 2. Silver Rock Transmission Project, Utah segment of entire route.

identified affected interests for one major federal action in southern Nevada (i.e., requiring preparation of an environmental impacts statement) and not doing so for another in southern Nevada appears to be inconsistent and gives the appearance of making arbitrary decisions. Failure by BLM to provide such requested notifications to the Council and other entities, so they can participate in the development of alternatives and identification and analysis of resource issues for this Project, also gives the appearance of a lack of transparency by BLM in the development of the Project. One conclusion is that BLM is trying to minimize public involvement and input, that is, not wanting the public to be involved.

Congress declared that “it is the continuing responsibility of the Federal Government to use all practicable means, consistent with other essential considerations of national policy, to improve and coordinate Federal plans, functions, programs and resources” to “fulfill the responsibilities of each generation as trustee of the environment for succeeding generations” (NEPA section 101(b)(1), attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences” (NEPA section 101(b)(3), and “preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice” (NEPA section 101(b)(4)). This action or lack of action by BLM to contact previously identified affected interests undermines BLM implementing the purpose of NEPA.

Conducting public scoping by contacting previously identified affected interests for one major federal action in southern Nevada (i.e., requiring preparation of an environmental impacts statement) and not doing so for another in southern Nevada appears to be inconsistent in BLM’s implementation of NEPA. It indicates that BLM is not uniformly implementing the public involvement process under the NEPA and gives the appearance of making arbitrary decisions under NEPA.

Congress did not place any limits in NEPA on how the Federal Government will coordinate federal plans, functions, programs, and resources with the public. The Council contends that any limits placed in departmental regulations or policies on NEPA coordination would violate NEPA. Consequently, the Council again requests that BLM notify us for proposed actions in the range of desert tortoise or proposed actions that may affect desert tortoises.

Description of the Proposed Project

Our comments on the proposed Project are intended to help BLM ascertain the depth and complexity of potential impacts to the tortoise and its habitat from the proposed Project and conduct science-based analysis of all effects, so the tortoise and its habitat in the Eastern Mojave Recovery Unit are effectively conserved.

In the Notice of Intent (NOI), BLM said an environmental impact statement is being prepared to evaluate a ROW application to construct up to two new high-voltage interstate transmission lines and associated Project facilities. If the application also includes operations and maintenance of the transmission lines, these actions should be included in the description and analysis of the proposed Project. If another entity will operate and maintain the transmission lines, the Draft Environmental

Impact Statement (Draft EIS) should identify who would be responsible for these actions and their impacts to the environment.

Lead and Cooperating Agency Status

In the NOI, BLM stated that the “BLM’s and the BOR’s purpose is to respond to the ROW application submitted by Silver Rock Transmission, LLC, to site, permit, and develop the Project on lands administered by the BLM and the BOR, respectively” and mentioned that BOR may need to issue additional permits and authorizations for the Project. The Bureau of Indian Affairs (BIA) may also need to issue additional authorizations. From the limited information provided by BLM on the proposed Project in the Notice of Intent, the proposed transmission line route appears to traverse at least one reservation.

NEPA requires that “if a proposed agency action will require action by more than one Federal agency and the lead agency has determined that it requires preparation of an environmental document, the lead and cooperating agencies shall evaluate the proposal in a single environmental document.” The Council requests that BLM, BOR, BIA, and any other federal agency should be identified in the Draft EIS and their status as lead or cooperating agency. Their required actions and descriptions and analyses of impacts regarding the lands for which they have management authority should be included in one Draft EIS along with appropriate mitigation for the adverse impacts to the environment.

Narrowly Defined Purpose and Need and the Effect on Development of Alternatives

BLM provided a narrowly-defined purpose and need. As stated above, in the NOI, BLM stated BLM’s and BOR’s purpose is “to respond to the ROW application submitted by Silver Rock Transmission, LLC, to site, permit, and develop the Project on lands administered by the BLM and the BOR, respectively.” BLM stated the need “arises from Title V of FLPMA, which authorizes the BLM to issue ROW grants on public lands for facilities that generate, transmit, and distribute electric energy, the Reclamation Act of 1902, as amended, which authorizes the BOR to issue ROWs on BOR-administered lands, and Executive Order 14154, Unleashing American Energy, which aims to improve energy transportation and distribution and ensure that an abundant supply of reliable energy is readily accessible across the United States.”

Alternatives are developed to achieve the purpose and need of the proposed action. In the NOI we were unable to find information on why the electricity generated from geothermal sources in western Utah and eastern Nevada need to be transported to the Las Vegas area rather than the Salt Lake City area or other areas where the generated electricity could be added to the interstate grid. In the Draft EIS, BLM should provide information on interconnection requirements, voltage and capacity targets to deal with regional transmission congestion, and reliability mandates for interstate grids such as the North American Electric Reliability Corporation (NERC) when describing the need for the proposed Project.

Alternatives

On their NEPA ePlanning portal BLM provided three maps of the proposed route for the transmission lines – one map of the overall route, one of the route in Nevada, and one of the route in Utah. Unfortunately, these maps have few reference points (i.e., only state and county boundary

lines, general land management/ownership by color, and small circles with city names) to indicate where the Applicant is proposing to locate the Project. They also lack land management designations such as national monuments, national conservation areas, critical habitat areas of critical environmental concern, etc. The southern terminus of the proposed transmission line route appears to be located in or near the Avi Kwa Ame National Monument and Piute Eldorado Critical Habitat Unit for the tortoise in southern Clark County, Nevada. The proposed route moves north and appears to traverse the Boulder City Conservation Easement, skirts the south and east sides of Las Vegas avoiding private land, and continues north, northeast passing just outside Lake Mead National Recreation Area. The route appears to bisect the Moapa River Reservation, crosses through or near the town of Moapa, then appears to continue northeast moving away from Interstate 15. Its trajectory indicates it crosses Mormon Mesa Critical Habitat Unit for the tortoise and continues northeast into Lincoln County, Nevada. It turns north possibly into the Beaver Dam Slope Critical Habitat Unit for the tortoise. The proposed route continues north through Lincoln County, turning northeast into Iron County, Utah possibly north of Dixie National Forest and continuing north into Millard County.

The Council finds it difficult to suggest alternatives when BLM provided information on only one of the four routes identified by the Applicant and that information was limited. We were unable to find information on the purpose and need. For example, where is the power production (e.g., geothermal locations) that the transmission line should be close or adjacent to in western (Millard County) Utah and eastern Nevada, and where are the locations where the electricity should be delivered to be part of the interstate distribution system? We contend that by not providing this basic and necessary information, BLM is limiting the ability of the public to identify reasonable alternatives. BLM is directing the process to favor the Applicant's proposed route. Does the delivery of electricity need to be the Las Vegas area? If the electricity could be placed into the interstate distribution system in the Salt Lake City area, the construction of this shorter route would be economically and environmentally preferable.

DOI (2026) states that "[t]he notice of intent to prepare an environmental impact statement should include a description of the purpose and need for the proposed action, and a preliminary description of the proposed action and alternatives the environmental impact statement will consider." The Council contends that BLM did not provide a preliminary description of the three alternative routes the environmental impact statement will consider. This omission exacerbates the difficulty in developing other alternatives when BLM has provided to the public a small subset of information it has on the proposed Project. This omission does not comply with the DOI's NEPA Procedures. BLM should explain in the Draft EIS why it did not provide the three alternative routes in the NOI.

Because BLM has provided limited information on the proposed Project, the Council is unnecessarily constrained by this limited information and is only able to offer two suggestions on where to place the transmission line route. One alternative is to locate it in existing transmission line or utility ROWs as much as possible. If the ROW is fully occupied, the Council recommends locating the proposed Project immediately adjacent to an existing transmission line ROW. For example, there is an existing transmission line for a 500 kV line that appears to be located near the terminus points identified on the map provided by BLM. That transmission line is OBJECTID

88955, ID 308464, NAICS_CODE 221121 (<https://felt.com/map/US-Electric-Power-Transmission-Lines-ayzDpbicSAGZbbpulPAxcC?loc=39.865,-112.44,6.82z>).

Another alternative is to locate the transmission lines immediately adjacent to highways. For both recommendations, the proposed transmission line route would be placed in existing linear disturbance corridors. These locations would minimize surface disturbance and their associated adverse effects from surface disturbance. Thus, these alternatives would help BLM to comply with FLPMA by preventing unnecessary and undue degradation of the lands.

Due to the absence of additional information from BLM, the Council is forced to provide information on areas the transmission line and ancillary facilities should avoid. These areas to avoid are important for the survival and recovery of the tortoise; they include designated critical habitat, national monuments, national conservation areas, mitigation lands, and tortoise habitat needed for connectivity within tortoise conservation areas (TCAs), between TCAs, between critical habitat units, and between recovery units (USFWS 1994a, USFWS 2011, Averill-Murray et al. 2021).

In the Draft EIS, BLM should provide information and maps that clearly show the locations of all alternative routes, special land management designations, and reference locations such as roads and mountain ranges. Information on why certain routes are preferred and criteria used for identifying routes should be included.

Connected Actions

The proposed Project would occur on BLM managed land, land managed by other federal agencies, lands held in trust by BIA for one or more tribes, state land, and private land. BLM's proposed Project should include a description and analysis of all these lands. We presume that if an entity other than BLM refused to provide ROW or other needed authorizations for construction of the proposed Project on their land, the entire Project would not be constructed. Because the project is two transmission lines, a gap in construction along a transmission line would make the project inoperable and alternative routes would need to be developed.

Compliance with NEPA, DOI Implementing Regulations, and DOI's NEPA Handbook

In reviewing 43 Code of Federal Regulations (CFR) 36, BLM is required to comply with the following regulations when preparing an environmental impact statement under NEPA:

- The environmental impact statement must be "prepared with professional and scientific integrity, using reliable data and resources;"
- "To maintain the scientific quality and integrity of the impact assessment, if in-house expertise is not available for the technical evaluations, another bureau or cooperating agency may be relied on, as needed, to verify the analyses."

These regulations reinforce BLM's policy on Advancing Science (see below). BLM should ensure that it is using data, results, and conclusions from the current scientific literature when preparing the Draft EIS and analyzing environmental effects to the tortoise and its habitat.

According to the DOI NEPA Procedures Handbook (DOI 2026), BLM is required to comply with the following directives when preparing an environmental impact statement:

“To the fullest extent possible, bureaus should prepare environmental documents or other NEPA compliance documents concurrently with and integrated with analyses and related surveys and studies required by other Federal statutes and regulations. Bureaus should combine an environmental document or other document prepared in compliance with NEPA with any other agency document to reduce duplication and paperwork.”

We assert that “other NEPA compliance documents” include biological assessments and initiation of formal consultation to determine effects of a proposed action on a listed species (i.e., Mojave desert tortoise) and its habitat. Consequently, to comply with the DOI NEPA Procedures Handbook, BLM should combine the Draft EIS with the information needed in a biological assessment and the request for formal consultation to reduce duplication and paperwork.

USFWS identified the following contents of a biological assessment (50 CFR 402.12):

- “1) The results of an on-site inspection of the area affected by the action to determine if listed or proposed species are present or occur seasonally” (i.e., tortoise presence-absence survey (USFWS 2019a).
- “2) The views of recognized experts on the species at issue” (i.e., USFWS biologists in Arizona and in the Desert Tortoise Recovery Office, U.S. Geological Survey researchers, Mojave desert tortoise biologists/researchers,).
- “3) A review of the literature and other information” (i.e., a review of current literature).
- “4) An analysis of the effects of the action on the species and habitat, including consideration of cumulative effects, and the results of any related studies.”
- “5) An analysis of alternate actions considered by the Federal agency for the proposed action.”

In 50 CFR 402.14(d), USFWS identified information to submit when initiating formal consultation. This information included:

- 1) the biological assessment;
- 2) a description of the proposed action in sufficient detail to assess the effects of the action on listed species and critical habitat, including the purpose, duration and timing, location, specific components of the action and how they will be carried out;
- 3) maps, drawings, blueprints, or similar schematics of the action;
- 4) any other available information related to the nature and scope of the proposed action relevant to its effects on listed species or designated critical habitat;
- 5) in the description of the proposed action any measures intended to avoid, minimize, or offset effects of the action; and
- 6) that the federal agency provide the USFWS with the best scientific and commercial data available or which can be obtained during the consultation for an adequate review of the effects that an action may have upon listed species or critical habitat.

Please ensure that this additional information and analysis is included in the Draft EIS for the tortoise and critical habitat to comply with the DOI NEPA Handbook.

Compliance with BLM Policies

We request that BLM describe how the construction, operations, and maintenance of the proposed Project would comply with all applicable BLM policies including those listed below:

- Bureau of Land Management. 2015. Advancing Science in the BLM: An Implementation Strategy IB 2015-040;
- Bureau of Land Management 2022. Habitat Connectivity on Public Lands Instruction Memorandum 2023-005;
- Bureau of Land Management. 2024. Special Status Species Management – Manual 6840. Washington, D.C. September 9, 2024; and
- Bureau of Land Management, 2016. Travel and Transportation Management. Manual 1626. Washington, D.C. September 27, 2016.

BLM Policy – Advancing Science: BLM (2015) is directed in other documents and in this policy to use science in its decision-making processes. In NEPA, Congress declared that federal agencies shall “[u]tilize a systematic, interdisciplinary approach which will ensure the integrated use of the natural and social sciences . . . in planning and in decisionmaking.” To comply with these requirements, BLM should use the latest information and analysis from scientific journals and reports when conducting its analysis of the impacts to the tortoise in the Draft EIS. This analysis should include impacts to (1) the demographic status of the tortoise; (2) the needs of the tortoise for its survival and recovery in the Northeastern Mojave Recovery Unit and rangewide; and (3) how the direct, indirect, cumulative, synergistic, and interactive impacts of action alternatives would affect the future survival and recovery of the tortoise in this Recovery Unit. This last analysis would include connectivity across the Northeastern Mojave Recovery Unit, connectivity with the Eastern Mojave and Upper Virgin River Recovery Units, connectivity range-wide, and the ability of tortoise populations to respond to habitat shifts from climate change. This analysis and any conclusions stated in the Draft EIS regarding the tortoise/tortoise habitat should be supported with citations from the scientific literature.

BLM’s “Advancing Science in the BLM: An Implementation Strategy IB 2015-040” (BLM 2015) reinforces the need to use science in decisionmaking. Please ensure the Draft EIS demonstrates compliance with this BLM policy especially with respect to analysis, conclusions, and decisions made concerning the tortoise.

BLM Policy – Habitat Connectivity: Under this policy, BLM is directed “to ensure habitat connectivity, permeability and resilience is restored, maintained, improved, and/or conserved on public lands” (BLM 2022). “BLM state offices will work with state and Tribal wildlife managers as well as other stakeholders to assess data regarding connectivity, permeability, and resilience and, based on that assessment, identify where to focus management that best supports priority species.” BLM “offices are also encouraged to work with a diverse scientific field of experts to expand research on habitat connectivity on public lands to best inform the assessment of habitat connectivity.” “Consistent with BLM’s inventory obligations and authority for important resource values (as provided for in Section 201(a) of FLPMA)[1], and to help guide where best to focus management of connectivity, the BLM will assess public lands for habitat connectivity and identify areas of habitat connectivity, which are habitats on BLM administered public lands that support or

facilitate priority species movements and other ecological processes, such as seed dispersal, migrations, and stopover sites.”

BLM should demonstrate in the Draft EIS that it has implemented this policy in southern Nevada and southwestern Utah with respect to the tortoise and its habitat.

To help maintain tortoise residency and permeability across all other non-conservation-designated tortoise habitat, Averill-Murray et al. (2021) recommended that all surface disturbance should be “limited to less than 5-percent development per square kilometer because the 5-percent threshold for development is the point at which tortoise occupation drops precipitously (Carter and others 2020a).” They cautioned that the upper threshold of five percent development per square kilometer may not maintain population sizes needed for demographic or functional connectivity; therefore, development thresholds should be lower than five percent.

When analyzing whether a project/proposed action may impact areas on the landscape used/needed by tortoises, BLM should include that the lifetime home range for the Mojave desert tortoise is more than 1.5 square miles (3.9 square kilometers) (Berry 1986) and that tortoises may make periodic forays of more than seven miles (11 kilometers) at a time (Berry 1986).

Recovery of the tortoise includes population connectivity between tortoise recovery units via functioning linkage habitats. Between the Upper Virgin River and Northeastern Mojave Recovery Units, two locations of linkage habitats have been identified from habitat modeling (Nussear et al. 2009, Averill-Murray et al. 2021). The northern linkage habitat that may provide connectivity extends west from the Red Cliffs National Conservation Area through a pass in the Beaver Dam Mountains. However, much of this area near St. George and Santa Clara has been developed creating edge effects that may substantially compromise connectivity via this northern linkage habitat. The southern linkage habitat is from Arizona near Big Valley southwest along the edge of the Virgin Mountains into Nevada.

Between the Eastern Mojave and Northeastern Mojave Recovery Units, linkage habitat is constrained by the development in the Las Vegas metropolitan area and mountainous topography to the north. Dutcher et al. (2019) analyzed current and future connectivity of tortoise populations in much of Clark County. Clark County contains the western portion of the Northeastern Mojave Recovery Unit and the eastern portion of the Eastern Mojave Recovery Unit, that is, connectivity between these two recovery units. Analysis of current and future connectivity for the tortoise in various units in Clark County revealed that current connectivity is around the north side of the Las Vegas area already reduced in some areas (Coyote Springs, Dry Lake, Indian Springs, and Las Vegas North Side) and non-existent (Las Vegas East Side) in others (Dutcher et al. 2019). Increased urbanization and associated development and use will reduce population levels of tortoises, and over time, reduced connectivity will contribute to genetic isolation. Population modeling, current demographic data, and trend data indicate tortoise populations will be smaller and more fragmented, and this trend will increase substantially in the future (Dutcher et al. 2019).

BLM Policy – Special Status Species Management: BLM states, “[t]his policy establishes an agencywide emphasis on proactive, landscape- and ecosystem-level, scientifically informed

conservation and recovery of special status species and their habitats” (BLM 2024). BLM identified five objectives:

- Focus on Proactive Conservation and Recovery for Special Status Species;
- Use FESA Section 7(a)(2) Consultation to Support Conservation and Recovery;
- Promote Healthy Species Populations and Biodiversity through Landscape- and Ecosystem-Level Management – including promoting ecosystem resilience and landscape intactness, including habitat connectivity especially with regard to climate change;
- Use Science and Adaptive Management to Advance Conservation and Recovery; and
- Engage Stakeholders through Internal and External Involvement.

For the first objective, BLM should demonstrate in the Draft EIS how implementation of the proposed Project is not hindering the conservation and recovery of the tortoise in the Northeastern Mojave Recovery Unit or the ability of the tortoise to respond to climate change through actions such as shifting its range to higher latitudes.

For the second objective, BLM should explain in the Draft EIS how it is complying with Section (7)(a)(2) of FESA for species and designated critical habitat, including the desert tortoise, that may be affected directly or indirectly by any phase of the proposed Project. Section 7(a)(2) of the FESA requires federal agencies to consult with the USFWS on any action that they fund, authorize, or carry out that may affect the desert tortoise. The effects of the proposed Project include direct, indirect, interrelated, and/or interdependent effects under FESA. Under NEPA, *all effects* [emphasis added] that are reasonably foreseeable and have a reasonably close causal relationship to their proposed action are to be analyzed (91 *FR* 36:8753). Please see additional comments on compliance with FESA below under “Consultation and Coordination, U.S. Fish and Wildlife Service Consultation.”

For the third objective, BLM should demonstrate how it has (1) analyzed and incorporated habitat connectivity for the tortoise and other special status species in the analysis of impacts for the proposed Project; and (2) developed appropriate mitigation to offset these adverse impacts and ensure that habitat connectivity is maintained. Habitat connectivity is necessary to support demographically viable populations and long-term gene flow for the tortoise and crucial to achieve recovery of the tortoise. Also, habitat connectivity between recovery units for the tortoise is necessary for its survival and recovery (Averill-Murray et al. 2021).

In analyzing habitat connectivity for the tortoise, Averill-Murray et al. (2021) stated, “Ignoring minor or temporary disturbance on the landscape could result in a cumulatively large impact that is not explicitly acknowledged (Goble 2009); therefore, understanding and quantifying all surface disturbance on a given landscape is prudent.” The authors found that effective linkage habitats are not long narrow corridors.” Rather, “low-mobility species, such as the desert tortoise, are considered “corridor dwellers” that may spend their entire life within corridors (Beier and Loe 1992). In effect, low mobility of the species means that interconnected local populations of tortoises must persist across the landscape to ensure overall species persistence (Averill-Murray et al. 2021).

For the fourth objective, this reinforces BLM's policy on "Advancing Science." Please see our comments above under "BLM Policy – Advancing Science" for information on how this fourth objective should be implemented with respect to the tortoise.

BLM Policy – Travel and Transportation Management: The primary objective of this policy is to “establish a long-term, sustainable, multimodal travel network and transportation system of areas, roads, primitive roads, trails and other transportation linear features that address the need for public, authorized, and administrative access to and across BLM-managed lands” (BLM 2016).

Averill-Murray and Allison (2023) reported that for road densities, including all linear features used for travel (including ROWs), land managers should “apply a maximum road density of 0.6 km/km² to areas predominately containing lower-probability tortoise habitat (e.g., probability values of less than 0.6) or less than 0.6 km/km² as a general target for travel management in areas where wildlife conservation is a priority” (e.g., linkage habitats with tortoise populations) and “further reduce road densities in higher-probability habitats.” The reason for this maximum density threshold is because the authors reported that the density above this resulted in declining populations of tortoises. The probability habitat values refers to the habitat values reported by Nussear et al. (2009) for the tortoise.

The proposed Project will likely include new access routes and spur routes. Consequently, BLM should (1) analyze the densities of all current routes in the tortoise management areas and Project area, (2) analyze whether additional roads could be located in tortoise habitat so they would remain below the maximum density threshold reported by Averill-Murray and Allison (2023), using the results of this analysis (3) determine whether there would be restrictions placed on these new routes (i.e., implementation of section 6.4 Closures and Restrictions in the Travel and Transportation Management Manual (BLM 2016) as authorized under special rules (43 CFR 8341.2) and (43 CFR 8364.1)) to minimize numerous adverse impacts to the tortoise from the presence and use of roads, and (4) identify and implement effective enforcement and monitoring including effective monitoring of incidental take of the tortoise.

Please include information in the Draft EIS to substantiate how the proposed Project complies with these BLM policies.

Compliance with the BLM Resource Management Plans in Nevada and Utah and with FLPMA

Compliance with RMPs: In the Draft EIS, please describe the relationship between the proposed Project and alternatives and any designated utility corridors in the Resource Management Plans (RMPs) that direct management of the areas in which the Project is proposed. In other RMPs (i.e., 1980 California Desert Conservation Area Plan and amendments and the Section 368 Utility Corridor Study), BLM has designated utility corridors to which utility ROWs are restricted. In the Draft EIS, please describe and provide a map of where these BLM-designated utility corridors are, where the proposed Project and its alternatives would be located, and locations where these two designations do not overlap. If there is not full overlap, BLM would need to propose amendments to existing RMPs to comply with FLPMA.

Compliance with FLPMA: FLPMA requires BLM to “take any action necessary to prevent unnecessary or undue degradation of the lands.” This would include using only steel monopoles or similar structures for transmission lines instead of towers to prevent common ravens from using these structures as nest sites. It would also include minimizing surface disturbance during construction and maintenance activities, implementing effective restoration of areas with surface disturbance from implementing temporary activities (e.g., staging areas, storage areas, etc.), closing and physically blocking access and spur roads to public use following completion of construction to avoid ongoing deleterious impacts from off-highway vehicles (OHV) use, and other actions. Closing these roads should be a requirement for security of the transmission lines. Please include these actions in the Draft EIS.

The Applicant has requested a combined ROW width of 450 to 650 feet and a siting corridor of up to 2,500 feet. To prevent unnecessary or undue degradation of the lands, BLM should independently determine the minimum ROW width needed rather than automatically approving the Applicant’s request. By doing this BLM would limit the areas where surface disturbance would occur thereby preventing unnecessary or undue degradation and would comply with FLPMA.

In the Draft EIS, BLM should analyze whether the proposed Project would result in an increase in common ravens and other predators of the desert tortoise in the region.

Adverse Effects to the Tortoise and Its Habitat from the Proposed Project

The construction, operations, and maintenance of the proposed Project would result in numerous adverse effects to the tortoise and its habitat. The USFWS has documented substantial declines in tortoise abundance and density since 2004 (USFWS 2015, 2016, 2018, 2019b, 2020, 2022, 2024, 2025a, 2025b). The primary reason for the substantial decline in tortoise abundance, density, and recruitment (Allison and McLuckie 2018) has been from increased mortality caused by indirect impacts from human activities. These include human activities that result in the degradation and/or fragmentation of tortoise habitat (USFWS 2011, Averill-Murray et al. 2021); surface disturbance and proliferation of non-native invasive plant species (Brooks and Berry 2006) via construction equipment, vehicles, and other sources; replacement of native forbs with high nutritional and water value with low nutritional non-native invasive grasses (Drake et al. 2016); increased occurrence of size, intensity, and frequency of human-caused wildfires from fuels provided by non-native invasive plant species (Brooks and Esque 2002); increased predation from substantially increased numbers of coyotes that utilize human subsidies of food and water (Richter et al. 2024) and ravens that utilize human subsidies of food, water, roosting, perching, and nesting locations (Boarman 2003, Kristan and Boarman 2007); and increased human access that provides opportunities for vandalism and collecting tortoises for pets (Lovich and Bainbridge 1998, Berry et al. 2020). Human-caused climate change exacerbates many of these impacts including success of invasive non-native annual plants and frequency, intensity, and size of wildfires (Brooks et al. 2004). Major sources of surface disturbance include residential, commercial, and industrial development projects and associated roads/highways (such as the proposed Project); military training; and off-highway vehicle use (USFWS 2011, Tuma et al. 2016).

Analysis of Adverse Effects from Construction and Use of Roads and Route Densities:

Construction and maintenance of the proposed transmission lines will likely require the

construction of roads. Management of road and route densities (Averill-Murray and Allison 2023) and the importance of genetic connectivity among tortoise populations through management of effective linkage habitats (Beier et al. 2008, Beier 2018, Averill-Murray et al. 2021) are research findings that were published after approval of the Las Vegas Resource Management Plan (RMP). Effective implementation of these findings in managing tortoise habitat are crucial to the survival and recovery of the tortoise. The direct and indirect effects to the tortoise from road construction and use are documented in the scientific literature with reductions in tortoise sign and numbers occurring. Von Seckendorff Hoff and Marlow (2002) reported that they detected reductions in tortoise numbers and sign from infrequent use of unpaved roadways to major highways with heavy use. There was a linear relationship between traffic level and reduction. For two graded, unpaved roads, with low traffic volume, the reduction in tortoises and sign was evident 1.1 to 1.4 km (3,620 to 4,608 feet = 0.68 to 0.87 mile) from the road.

Other documented impacts from road construction and use include increases in roadkill of wildlife species as well as tortoises, and creating or increasing food subsidies for common ravens. Food subsidies contribute to increases in raven numbers and predation pressure on the tortoise (Boarman 2003). Similar food subsidies occur for coyotes with increases in their numbers and increased predation pressure on tortoises (Richter et al. 2024). Nonnative invasive annual plant species cover and richness are greater closer to roads (Boarman and Sazaki 2006), and nonnative invasive plant species (Brooks and Berry 2006) are transported and established via construction equipment, vehicles, and other sources. The replacement of native forbs with high nutritional and water value with low nutritional nonnative invasive grasses adversely affects tortoise health and survival especially juvenile tortoises (Drake et al. 2016). There is increased occurrence of wildfire size, intensity, and frequency of human-caused wildfires from fuels provided by non-native invasive plant species (Brooks and Esque 2002); and increased human access that provides opportunities for vandalism and collecting tortoises for pets (Lovich and Bainbridge 1998, Berry et al. 2020).

In the Draft EIS, BLM should analyze how the proposed Project would comply with BLM's policy on Habitat Connectivity and FLPMA. Specifically, the issues are connectivity for the tortoise within the Northeastern Mojave Recovery Unit, connectivity with tortoises in the Upper Virgin River and Eastern Mojave Recovery Units, and connectivity to vegetation associations moving to higher latitudes in response to climate change. The importance of habitat connectivity within a recovery unit and between recovery units was identified in USFWS's Recovery Plan (USFWS 1994b), and emphasized in the Revised Recovery Plan for the Mojave Population of the Desert Tortoise (USFWS 2011). Since then, the needs of habitat connectivity for the tortoise have been analyzed in several scientific papers including Averill-Murray et al. (2021).

In the Draft EIS, BLM should include the results of the following actions:

- use existing geospatial data on tortoise habitat (e.g., Nussle et al. 2009) for these three recovery units;
- overlay existing geospatial data of past and present development/surface disturbance;
- indicate the spatial extent of the indirect impacts (that extend beyond the project footprint) of this development according to Beier et al. (2008), Beier (2018), Carter et al. (2020), Averill-Murray et al. (2021), and others; and

- overlay the locations of the proposed Project including all ancillary facilities and activities associated with construction, operations, and maintenance of transmission lines.

These geospatial layers would indicate where habitat for the tortoise would remain, and whether the configuration of the tortoise habitat would be sufficient to provide connectivity within and between the recovery units and to the north to respond to climate change. This information and analysis should be reported in the Draft EIS to demonstrate compliance with FLPMA and this policy as well as analysis under FESA in the biological assessment.

Mitigation Plans

Typically, applicants proposing to construct, operate, and maintain transmission lines propose mitigation to minimize or fully offset the adverse effects of the proposed project. Science-based mitigation, monitoring, and adaptive management plans to mitigate adverse effects to the tortoise and its habitat usually include:

- Minimization of Surface Disturbance Plan
- Tortoise Monitoring Plan
- Fire Prevention and Emergency Response Plan
- Fugitive Dust Control Plan
- Habitat Restoration Plan
- Hazardous Materials and Waste Management Plan
- Helicopter Use and Safety Plan
- Invasive Plant Management Plan
- Soils Management Plan
- Recreation Route Management Plan
- Predator Management Plan
- Environmental Compliance Monitoring Plan
- Habitat Compensation and Mitigation Plan.

These plans should be included in the Draft EIS and should be developed, implemented, monitored, and adapted (based on monitoring results) using of the best available science to ensure high levels of success. For example, the Habitat Restoration Plan should include all physical and biological components of the habitat, not just reseeding with native plants. The pre-project surface contours should be restored to ensure that surface hydrology to down-gradient areas is maintained for both washes and sheet flow in upland areas (Devitt et al. 2022). To assist BLM is developing science-based effective mitigating plans to offset adverse effects to the tortoise, the Council has selected two mitigation plans as examples of the information BLM should use in developing these plans. More information on what BLM needs to include in a Habitat Restoration Plan and Predator Management Plan for tortoise habitat is included below.

Habitat Restoration Plan: FLPMA requires BLM to take any action necessary to prevent unnecessary or undue degradation of public lands managed by the BLM. To comply with FLPMA, BLM should require the Applicant of the proposed Project to meet the 100% designation for restoration. To determine when this level of restoration effort has been achieved, BLM should require the Applicant to collect data and photograph existing topographic, soil, and vegetation conditions at the identified restoration sites.

Preventing unnecessary and undue degradation of the lands should apply to the percent set for non-native plant species cover, density, distribution, and abundance. For example, for revegetated sites the goal should be less than 5 percent non-native annual plants for vegetated cover. In addition to FLPMA, BLM is also directed under other authorities, such as Executive Order 13112 on Invasive Plant Species to not authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species. The Habitat Restoration Plan should explain how the methods the Applicant proposes to use and the identified success criteria are complying with these directives.

BLM typically requires monitoring and adaptive management of habitat restoration projects for up to 5 years. However, the time and actions needed to effectively restore soils and vegetation in the Mojave Desert take much longer.

After severe disturbance, desert soils require long periods to recover naturally (Chiquoine et al. 2016). For example, for biological soil crusts, Belnap (2001) reported recovery rates ranging from 14 to 50 years depending on the species comprising the soil crust. Chiquoine et al. (2016) reported that for soil crusts composed of lichens or mosses, recovery time is several decades to centuries depending on the availability of the propagules. Consequently, without assistance to facilitate natural restoration of biological soil crusts, successful restoration will take much longer than the typical 5 years of monitoring that the BLM's habitat management plans typically require. Establishment of arbuscular mycorrhizal fungi likely takes many years.

BLM should discuss and analyze the impacts of the alternatives to soil resources including the physical (e.g., change in compaction, wind erosion, water erosion, organic matter, etc.), chemical (e.g., soil moisture content, etc.), and biological (e.g., soil crusts, arbuscular mycorrhizal fungi, etc.) components of the soils in the project area. For compaction, there should be a discussion on how compaction affects the chemical and biological properties of soils. Arbuscular mycorrhizal fungi and biological soil crusts (soil crusts) are key soil partners. Biocrusts stabilize the top surface layer using cyanobacteria, mosses, and lichens, while arbuscular mycorrhizal fungi networks connect plant roots to stabilize deeper soil layers, working together to boost soil health and plant nutrient uptake in desert soils.

This section should discuss and analyze the effectiveness of mitigation that would be implemented such as topsoil removal, storage, and reuse; implementation of identified measures to eliminate water and wind erosion including inoculation of soils with soil crusts and arbuscular mycorrhizal fungi (Hernandez et al. 2023), etc. Please add this discussion and analysis to the Draft EIS.

For restoration of native perennial vegetation, Abella (2010) reported recovery of vegetation lost from surface disturbance would take 200 years, and disturbances can leave scars in the desert visible for multiple human generations (equivalent to tortoise generations). We expect that this time would be reduced if the Applicant implemented effective actions to assist the soils and vegetation restoration processes. However, the monitoring times that BLM typically requires are inadequate. For past projects, they have been unsupported by references from the scientific literature. When developing the Habitat Restoration Plan for the proposed Project, please provide

documentation from the scientific literature that these monitoring times are sufficient to ensure that the physical, chemical, and biological components of soils and native plants species cover, density, distribution and abundance are restored to pre-Project conditions.

In addition, please ensure that the Habitat Restoration Plan uses the latest methods for reinoculation of soils and replanting including necessary soil conditions and components and realistic monitoring periods.

For recent BLM projects that result in surface disturbance, BLM has required revegetation efforts and has ignored the relationship between arbuscular mycorrhizal fungi, soil crusts, and native desert plant species to achieve successful plant restoration results. In addition, for other projects in the Mojave Desert BLM has allowed Applicants to reseed areas as the primary revegetation effort for native perennial species. While reseeding can cover a larger area than using containerized plants, it has a low success rate. This statement is supported by data that BLM provided on the low density and species richness (diversity) of native perennial plants that are expected after 5 and 10 years of reclamation activities using seeding and transplanting cacti and succulents (BLM 2025).

To improve the success of revegetation efforts, we recommend using the latest information from the scientific literature regarding methods to restore soil crusts (e.g., Chiquoine et al. 2016) and arbuscular mycorrhizal fungi (Titus et al. 2002, Clark et al. 2009, Hernandez et al. 2023, Chavez-Gonzalez 2024), seed banks (DeFalco et al. 2012, Lee et al. 2024), and seeding and outplantings (planting nursery-grown perennials) (Abella et al. 2012, Abella and Berry 2016, Abella et al. 2023). For example, Abella et al. (2012) reported that when comparing seeding to outplanting of ten native perennial species in an experiment in southern Nevada, seeding failed despite 1) protecting seeds from predation by small mammals; 2) seeding at rates of ≥ 200 pure live seeds/meter² for each species; 3) conducting germination tests to ensure that some seeds were viable; 4) irrigating plots; and 5) receiving above-average precipitation in 2 post-seeding years. Outplants had varying degrees of success ranging from 65 percent to 2.5 percent. They suggested that previous seeding studies that reported success had been conducted in the 1970s to the mid-1990s; none have occurred in contemporary climates that might offer different conditions to seeding projects including changing amounts and seasonality of precipitation (Hereford et al. 2006).

Abella and Berry (2016) reported that “because of cost and logistical challenges, outplanting can be criticized for being unable to cover as much area as seeding. However, no matter how large an area is seeded, the area revegetated is still zero if no seeded species become established, a situation not uncommon.” They identified outplanting as the preferred method for success and three main best practices that are well supported in the scientific literature for increasing success of outplanting: carefully select species, use good planting stock, and perform effective plant care. DeFalco et al. (2012) reported on why supplementing impoverished seed banks and improving the seedbed (i.e., seeding) frequently fail as revegetation efforts.

Chiquoine et al. (2016) reported that soil crusts are significant in contributing to soil surface stability (Belnap and Gillette 1998, Chaudhary et al. 2009), carbon cycling and sequestration (Elbert et al. 2012, Cantón et al. 2014), nitrogen cycling (Belnap 2002, Castillo-Monroy et al.

2010), surface hydrology (Warren 2003, Belnap 2006), ecosystem resilience (Kuske et al. 2012), and ecological restoration (Bowker 2007).

Hernandez et al. (2023) reported that some Mojave-native perennial and annual plant species have been identified to form relationships with important soil biota, such as arbuscular mycorrhizal fungi. Ecological restoration may be facilitated by utilizing cost-effective inoculants of indigenous soil biota and evaluating not only above ground factors, but potential interactions in the rhizosphere of the soil. Soil crusts and arbuscular mycorrhizal fungi should be restored/inoculated before revegetating areas in the Mojave Desert with native perennial species using outplantings rather than reseeding. Thus, there is a symbiotic relationship between the biota in desert soils and vegetation that promotes the survival and growth of native vegetation.

If BLM desires to have a high degree of success in rehabilitating the Project area, accelerate the natural revegetation process, and demonstrate that it is taking “any action necessary to prevent unnecessary or undue degradation of the lands” as mandated by FLPMA, BLM should require that soil crusts and arbuscular mycorrhizal fungi be restored/inoculated before revegetating areas in the Mojave Desert with native perennial species using outplantings rather than reseeding. Additionally, BLM should use the results of research conducted on revegetating native vegetation in the Mojave Desert in requiring implementation of methods with the highest success rate.

The Habitat Restoration Plan should include actions to deal effectively with ongoing and future human activities that degrade/destroy areas where restoration is being implemented, especially for special status species such as the tortoise. Please include an analysis of this issue and the likely success of the Habitat Restoration Plan for unregulated activities by the public such as off-highway vehicle use, etc.

FLPMA mandates that BLM require the development and implementation of an *effective* [emphasis added] Habitat Restoration Plan under BLM’s mandate to in managing the public lands to “take any action necessary to prevent unnecessary or undue degradation of the lands.” From the above information, it is clear that restoration of surface hydrology, soils, and vegetation in the Mojave Desert is a complex and interdependent process. To achieve successful restoration, it is imperative that BLM use the best available science to achieve successful implementation of a Habitat Restoration Plan in tortoise habitat.

Predator Management Plan: A predator management plan usually includes common ravens (*Corvus corax*) and coyotes (*Canis latrans*) and may include kit fox (*Vulpes macrotis*), badgers (*Taxidea taxus*), and mountain lions (*Felis concolor*). Information on general requirements for managing the common raven that should be included in the Predator Management Plan are provided below.

During construction, operations, and maintenance for the proposed Project, BLM should include requirements for monitoring and managing raven predation on tortoises as a result of the proposed Project. The monitoring and management plan should include reducing human subsidies for food, water, and sites for nesting, roosting, and perching to address local impacts. The subsidies for reducing sites for nesting would occur by using poles to support the transmission lines that do not

provide adequate surface area for common ravens to construct nests (e.g., monopoles). The Applicant should contribute to the National Fish and Wildlife Foundation's Raven Management Fund (USFWS 2010) for regional and cumulative impacts to tortoises from human-provided subsidies for these tortoise predators. This fund was established many years ago in California and should be expanded to include projects in the range of the tortoise in Nevada, Utah, and Arizona.

Any science-based mitigation that minimizes take or science-based monitoring to determine the amount of take or the effectiveness of minimization measures for all forms of take should be identified as required mitigation and monitoring in the Draft EIS.

Description and Analysis of Binding Mitigation Measures for FESA and FLPMA Requirements

To comply with DOI NEPA Procedures, DOI directs agencies to use one document to comply with the requirements of many environmental laws (e.g. FESA requirements for analysis of effects). The requirements for a biological assessment and initiating formal section 7 consultation should be included in the Draft EIS. Please see the section above on "Compliance with NEPA, DOI Implementing Regulations, and DOI's NEPA Handbook" for information on what should be included in a biological assessment and a request for formal consultation. BLM should include this information in the Draft EIS.

Under NEPA, mitigation that is described and analyzed is not considered as obligating the Applicant to implement it. However, the courts have ruled that the standards DOI adopted in 2026 for Implementing NEPA Procedures are different than the requirements for section 7 consultation under FESA. FESA requires USFWS to use the best available data—even if that data is poor—to assess the likelihood of jeopardy to listed species or adverse modification of their habitat (CBD et al. v DOI et al. 2026, Case No. 24-cv-04651-JST, March 30, 2026). The wording in the FESA statute requires USFWS to determine whether jeopardy or adverse modification is "likely." At least two Courts of Appeals have had occasion to address the meaning of "reasonable certainty" in this context and have concluded that it is more stringent (i.e. more limiting) than the statute's wording of "likely."

Requiring effects of the action to be "reasonably certain to occur" before the USFWS can consider them violates the statute's text. USFWS is directed to use the best available scientific information. In this same ruling the Courts determined that an agency does not satisfy its obligation under Section 7 to insure against take of species by "resting its conclusions on 'plans' (e.g., mitigation and monitoring plans) that are merely proposed and non-binding" such as under NEPA. Therefore, in the Draft EIS, BLM needs to distinguish between mitigation and monitoring that is proposed under NEPA and mitigation and monitoring that will be implemented under FESA.

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 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 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 under FESA and as part of its directive to conserve special status species under BLM's Special Status Species Management Policy.

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.
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Literature Cited

- Abella, S.R. 2010. Disturbance and plant succession in the Mojave and Sonoran Deserts of the American Southwest. *International Journal of Environmental Research and Public Health* 7.4 (2010): 1248-1284.
<https://www.mdpi.com/1660-4601/7/4/1248>
- Abella, S.R., D.J. Craig, and A.A. Suazo. 2012. Outplanting but not seeding establishes native desert perennials. *Native Plants Journal* 13:81–89.
https://oasis.library.unlv.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1513&context=sls_fac_articles
- Abella S.R. and K.H. Berry. 2016. Enhancing and restoring habitat for the desert tortoise (*Gopherus agassizii*). *Journal of Fish and Wildlife Management* 7(1):255–279.
<https://doi.org/10.3996/052015-JFWM-046>

- Abella, S.R., K.H. Berry, and S. Ferrazzano. 2023. Techniques for restoring damaged Mojave and western Sonoran habitats, including those for threatened desert tortoises and Joshua trees. *Desert Plants* 38:4-52.
<https://deserttortoise.org/wp-content/uploads/Abella-et-al-2023-Restoration-in-the-Mojave-Western-Sonoran-Desert-Vegetation.pdf>
- 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>
- Averill-Murray, R.C., and L.J. Allison. 2023. Travel Management Planning for Wildlife with a Case Study on the Mojave Desert Tortoise. *Journal of Fish and Wildlife Management* 14(1):269–281; e1944-687X.
<https://doi.org/10.3996/JFWM-22-030>
- Beier, P., and S. Loe. 1992. A checklist for evaluating impacts to wildlife movement corridor. *Wildlife Society Bulletin* 20(4): 434–440.
<https://www.jstor.org/stable/3783066>
- Beier, P., D.R. Majka, and W.D. Spencer. 2008, Forks in the road—Choices in procedures for designing wildland linkages: *Conservation Biology* 22(4):836–851.
<https://doi.org/10.1111/j.1523-1739.2008.00942.x>
- Beier, P. 2018. A rule of thumb for widths of conservation corridors. *Conservation Biology* 33(4) (August 2019): 976-978.
<https://www.jstor.org/stable/48553791>
- Belnap, J., and D. A. Gillette. 1998. Vulnerability of desert biological soil crust to wind erosion: the influences of crust development, soil texture, and disturbance. *Journal of Arid Environments* 39:133–142.
- Belnap, J., J.H. Kaltenecker, R. Rosentreter, J. Williams, S. Leonard, and D. Eldridge. 2001. Biological Soil Crusts: Ecology and Management. Bureau of Land Management National Science and Technology Center, Information and Communications Group, Technical Reference 1730-2, BLM/ID/ST-01/001+1730.
<https://www.ntc.blm.gov/krc/system/files?file=legacy/uploads/2939/CrustManual.pdf>
- Belnap, J. 2006. The potential roles of biological soil crust in dryland hydrologic cycles. *Hydrological Processes* 20:3159–3178.

- Berry, K.H. 1986. Desert tortoise (*Gopherus agassizii*) relocation: Implications of social behavior and movements. *Herpetologica* 42:113-125.
<https://www.jstor.org/stable/3892242>
- Berry, K.H., J.L. Yee, L.M. Lyren, and J.S. Mack. 2020. An Uncertain Future for a Population of Desert Tortoises Experiencing Human Impacts. *Herpetologica*, 76(1) : 1-11.
<https://doi.org/10.1655/Herpetologica-D-18-00033>
- 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>
- [BLM] U.S. Bureau of Land Management. 2015. Advancing Science in the BLM: An Implementation Strategy IB 2015-040. March 18, 2015.
<https://www.blm.gov/policy/ib-2015-040>
- [BLM] U.S. Bureau of Land Management 2016. 1626 – Travel and Transportation Management Manual.
https://www.blm.gov/sites/blm.gov/files/uploads/mediacenter_blmpolicymanual1626.pdf
- [BLM] U.S. Bureau of Land Management. 2022. Habitat Connectivity on Public Lands Instruction Memorandum 2023-005.
<https://www.blm.gov/policy/im-2023-005-change-1>
- [BLM] U.S. Bureau of Land Management. 2024. Special Status Species Management. Handbook 6840. September 9, 2024.
https://www.blm.gov/sites/default/files/docs/2024-11/MS%206840%2C%20Rel.%206-142_0.pdf
- [BLM] U.S. Bureau of Land Management. 2025. Castle Mountain Mine EIS. Table 9, Success Criteria, Castle Mountain Venture Ivanpah Underground Water and 69 Kv Overhead Power Line Rights-Of-Way Project Clark County, Nevada.
<https://eplanning.blm.gov/Project-Home/?id=adc332ef-a7f2-f011-8407-001dd803d7d3>
- [BLM] U.S. Bureau of Land Management. 2026. Intent to Prepare an Environmental Impact Statement for the Proposed Silver Rock Transmission Line Project in Millard, Beaver, and Iron Counties, UT and Lincoln and Clark Counties, NV. 91 Federal Register (170):56664-56666.
- Boarman, W. 2003. Managing a Subsidized Predator Population: Reducing Common Raven Predation on Desert Tortoises. *Environmental Management* 32, 205–217 (2003).
<https://doi.org/10.1007/s00267-003-2982-x>
- Boarman, W.I. and M. Sazaki. 2006. A highway's road-effect zone for desert tortoises (*Gopherus agassizii*). *Journal of Arid Environments* 65:94-101.

- Bowker, M. A. 2007. Biological soil crust rehabilitation in theory and practice: an unexploited opportunity. *Restoration Ecology* 15:13–23.
<https://onlinelibrary.wiley.com/doi/full/10.1111/j.1526-100X.2006.00185.x>
- Brooks, M.L., and T.C. Esque. 2002. Alien plants and fire in desert tortoise (*Gopherus agassizii*) habitat of the Mojave and Colorado Deserts. *Chelonian Conservation and Biology* 4:330–340.
[https://chelonian.org/wp-content/uploads/file/CCB_Vol_4_Nos1-4\(2001-2005\)/Brooks_and_Esque_2002.pdf](https://chelonian.org/wp-content/uploads/file/CCB_Vol_4_Nos1-4(2001-2005)/Brooks_and_Esque_2002.pdf)
- Brooks, M.L., C.M. D’Antonio, D.M. Richardson, J.B. Grace, J.E. Keeley, J.M. Ditomaso, R.J. Hobbs, M. Pellant, and D. Pyke. 2004. Effects of invasive alien plants on fire regimes. *Bioscience* 54(7):677-688.
<https://www.sciencedirect.com/science/article/abs/pii/S0006320716302130>
- Brooks, M.L. and K.H. Berry. 2006. Dominance and environmental correlates of alien annual plants in the Mojave Desert, USA. *Journal of Arid Environments* 67:100–124.
<https://www.sciencedirect.com/science/article/abs/pii/S0140196306002989>
- Cantón, Y., J. R. Román, S. Chamizo, and M. J. Moro. 2014. Dynamics of organic carbon losses by water erosion after biocrust removal. *Journal of Hydrology and Hydromechanics* 62:258–268.
<https://reference-global.com/article/10.2478/johh-2014-0033>
- Carter, S.K., K.E. Nussear, T.C. Esque, I.I.F. Leinwand, E. Masters, R.D. Inman, N.B. Carr, and L.J. Allison. 2020. Quantifying development to inform management of Mojave and Sonoran desert tortoise habitat in the American southwest. *Endangered Species Research* 42:167–184.
<https://doi.org/10.3354/esr01045>.
<https://www.int-res.com/abstracts/esr/v42/p167-184/>
- Castillo-Monroy, A. P., F. T. Maestre, M. Delgado-Baquerizo, and A. Gallardo. 2010. Biological soil crusts modulate nitrogen availability in semi-arid ecosystems: insights from a Mediterranean grassland. *Plant and Soil* 333:21–34.
<https://link.springer.com/article/10.1007/s11104-009-0276-7>
- [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>

- Chaudhary, V. B., M. A. Bowker, T. E. O'Dell, J. B. Grace, A. E. Redman, M. C. Rilling, and N. C. Johnson. 2009. Untangling the biological contributions to soil stability in semiarid shrublands. *Ecological Applications* 19:110–122.
<https://esajournals.onlinelibrary.wiley.com/doi/abs/10.1890/07-2076.1>
- Chavez-Gonzalez, J.D., V.M. Flores-Núñez, I.U. Merino-Espinoza, and L.P. Partida-Martínez. 2024. Desert plants, arbuscular mycorrhizal fungi and associated bacteria: Exploring the diversity and role of symbiosis under drought. *Environmental Microbiology Reports*. 2024;16:e13300. [wileyonlinelibrary.com/journal/emi4](https://doi.org/10.1111/1758-2229.13300) 1 of 17
<https://doi.org/10.1111/1758-2229.13300>
- Chiquoine, L.P., S. R. Abella, and M.A. Bowker. 2016. Rapidly restoring biological soil crusts and ecosystem functions in a severely disturbed desert ecosystem. *Ecological Applications* 26(4):1260-1272.
<https://esajournals.onlinelibrary.wiley.com/doi/abs/10.1002/15-0973>
- Clark, N.M., M.C. Rilling, and R.S. Nowak. 2009. Arbuscular mycorrhizal fungal abundance in the Mojave Desert: Seasonal dynamics and impacts of elevated CO₂. *Journal of Arid Environments* 73(9) September 2009: 834-843.
<https://www.sciencedirect.com/science/article/abs/pii/S0140196309000688>
- [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>
- DeFalco, L.A., T.C. Esque, M.B. Nicklas, and J.M. Kane. 2012. Supplementing seed banks to rehabilitate disturbed Mojave Desert shrublands: Where do all the seeds go? *Restoration Ecology* 20(1): 85–94.
<https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1526-100X.2010.00739.x>
- 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
- Devitt, D.A., L. Apodac, B. Bird, J.P. Dawyot, Jr., L. Fenstermaker, and M.D. Petrie. 2022. Assessing the impact of a utility scale solar photovoltaic facility on a down gradient Mojave Desert ecosystem. *Land* 2022, 11, 1315.
<https://doi.org/10.3390/land11081315>
- [DOI] Department of the Interior. 2026. 516 DM 1 – U.S. Department of the Interior Handbook of National Environmental Policy Act Implementing Procedures.
<https://www.doi.gov/media/document/doi-handbook-nepa-procedures>

- Drake, K. K., L. Bowen, K. E. Nussear, T. C. Esque, A. J. Berger, N. A. Custer, S. C. Waters, J. D. Johnson, A. K. Miles, and R. L. Lewison. 2016. Negative impacts of invasive plants on conservation of sensitive desert wildlife. *Ecosphere* 7(10):e01531. 10.1002/ecs2.1531. <https://esajournals.onlinelibrary.wiley.com/doi/pdf/10.1002/ecs2.1531>
- Dutcher, K.E., J.S. Heaton, and K.E. Nussear. 2019. Desert tortoise connectivity modeling. Technical 1543 Report 2015-UNR-1580A, Clark County Desert Conservation Program. <https://www.clarkcountynv.gov/adobe/assets/urn:aaid:aem:077100e1-2904-4150-b69f-0260fc25c3ba/original/as/dt-connectivity-modeling-finalreport-edited.pdf>
- Elbert, W., B. Weber, S. Burrows, J. Steinkamp, B. Büdel, M. O. Andreae, and U. Pöschl. 2012. Contribution of cryptogamic covers to the global cycles of carbon and nitrogen. *Nature GeoScience* 5:459–462. <https://www.nature.com/articles/ngeo1486>
- Goble, D.D. 2009. The endangered species act—What we talk about when we talk about recovery: *Natural Resources Journal* 49:1–44. <https://www.jstor.org/stable/24889187>
- Hernández, M.J., O.A. Parra, and J.M. Valliere. 2023. Response of Mojave Desert native perennials to inoculum from invasive and native annuals. University of California Davis, Department of Plant Sciences. https://www.cal-ipc.org/wp-content/uploads/2023/12/Cal_IPC_Symposium_2023_Mayra_Hernandez_Mojave_Desert_soil_inoculum.pdf
- Kristan III, W.B., and W.I. Boarman. 2007. Effects of Anthropogenic Developments on Common Raven Nesting Biology in the West Mojave Desert. *Ecological Applications* 17(6), 1703–1713. https://www.researchgate.net/profile/William-Boarman/publication/5932132_Effects_of_anthropogenic_developments_on_Common_Raven_nesting_biology_in_the_west_Mojave_Desert/links/5deea56a4585159aa470f2ad/Effects-of-anthropogenic-developments-on-Common-Raven-nesting-biology-in-the-west-Mojave-Desert.pdf
- Kuske, C. R., C. M. Yeager, S. Johnson, L. O. Ticknor, and J. Belnap. 2012. Response and resilience of soil biocrust bacterial communities to chronic physical disturbance in arid shrublands. *International Society for Microbial Ecology Journal* 6:886–897. <https://www.nature.com/articles/ismej2011153>
- Lee, S., R. Klinger, M.L. Brooks, and S. Ferrenberg. 2024. Homogenization of soil seed bank communities by fire and invasive species in the Mojave Desert. *Frontiers in Ecology and Evolution* 12:1271824. doi: 10.3389/fevo.2024.1271824. <https://www.frontiersin.org/articles/10.3389/fevo.2024.1271824/full>

- Lovich, J.E. and D. and Bainbridge. 1999. Anthropogenic degradation of the southern California desert ecosystem and prospects for natural recovery and restoration. *Environmental Management* 24(3):309–326.
https://d1wqtxts1xzle7.cloudfront.net/46769893/Anthropogenic_20Degradation_20of_20the_20Southern_20California_20Desert_20Ecosystem-libre.pdf?1466815132=&response-content-disposition=inline%3B+filename%3DAnthropogenic_Degradation_of_the_Souther.pdf&Expires=1783629557&Signature=JmnAJ0embOg91I0~VNEqpQnXxeQvqkNflaJ9dKu4eEx~NTM0XATdREbZaL2SULHXa0Ejin6dH~qfcLLVHaVuqVigtS0BFBcXcPtn25OahmhOpK1FndMzxDH185nMmgGm52FeY9QIDR5x732Gsm1ubdEuV8ShPzUNNH7o32NGdc1ZwzPfoFfDcDCql-T3VhNO3L1j7I6ulq2p3H7D34X9rasvlClz28pOVcxRe69KaSNrVaRug6k9ocKhj~6PiW35REE4MeJuhDWughksWO-fptaWjQ~n-IzgCqdj0M0P0Ojyy9QVjiUuX9T-crykkqDKcEt1hd~CE3hfhJauc67dYw_&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA
- 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>
- Richter, C.J., B.D. Todd, K.A. Buhlmann, G.R. Barnas, M.T. Kohl., and T.D. Tuberville. 2024. Factors influencing risk of predation by subsidized predators on juvenile Mojave desert tortoises (*Gopherus agassizii*). *Global Ecology and Conservation* 55 (2024) e03220.
<https://doi.org/10.1016/j.gecco.2024.e03220>
- Titus, J. H., P.J. Titus, R.S. Nowak, and S.D. Smith. 2002. Arbuscular mycorrhizae of Mojave Desert plants. *Western North American Naturalist*, 62(3): 327-334.
https://oasis.library.unlv.edu/sls_fac_articles/46
- Tuma, M.W., C. Millington, N. Schumaker, and P. Burnett. 2016. Modeling Agassiz's Desert Tortoise Population Response to Anthropogenic Stressors. *Journal of Wildlife Management* 80(3):414–429.
<https://wildlife.onlinelibrary.wiley.com/doi/abs/10.1002/jwmg.1044>
- [USFWS] U.S. Fish and Wildlife Service. 2010. Common raven predation on the desert tortoise. USFWS, Ventura Fish and Wildlife Office, Ventura, CA.
- [USFWS] U.S. Fish and Wildlife Service. 1994a. Endangered and threatened wildlife and plants; determination of critical habitat for the Mojave population of the desert tortoise. *Federal Register* 59(26):5820-5866. Washington, D.C.
<https://www.govinfo.gov/content/pkg/FR-1994-02-08/html/94-2694.htm>

- [USFWS] U.S. Fish and Wildlife Service. 1994b. Desert tortoise (Mojave population) Recovery Plan. U.S. Fish and Wildlife Service, Region 1, Portland, Oregon. 73 pages plus appendices.
https://ecos.fws.gov/docs/recovery_plan/940628.pdf
- [USFWS] U.S. Fish and Wildlife Service. 2011. Revised Recovery Plan for the Mojave Population of the Desert Tortoise (*Gopherus agassizii*). U.S. Fish and Wildlife Service, California and Nevada Region, Sacramento, California.
<https://www.fws.gov/sites/default/files/documents/USFWS.2011.RRP%20for%20the%20Mojave%20Desert%20Tortoise.pdf>
- [USFWS] U.S. Fish and Wildlife Service. 2015. Range-wide Monitoring of the Mojave Desert Tortoise (*Gopherus agassizii*): 2013 and 2014 Annual Reports. Report by the Desert Tortoise Recovery Office, U.S. Fish and Wildlife Service, Reno, Nevada.
<https://www.fws.gov/sites/default/files/documents/USFWS.2015%20report.%20Rangewide%20monitoring%20report%202013-14.pdf>
- [USFWS] U.S. Fish and Wildlife Service. 2016. Range-wide Monitoring of the Mojave Desert Tortoise (*Gopherus agassizii*): 2015 and 2016 Annual Reporting. Report by the Desert Tortoise Recovery Office, U.S. Fish and Wildlife Service, Reno, Nevada.
<https://www.fws.gov/sites/default/files/documents/USFWS.2016%20report.%20Rangewide%20monitoring%20report%202015-16.pdf>
- [USFWS] U.S. Fish and Wildlife Service. 2018. Range-wide Monitoring of the Mojave Desert Tortoise (*Gopherus agassizii*): 2017 Annual Reporting. Report by the Desert Tortoise Recovery Office, U.S. Fish and Wildlife Service, Reno, Nevada.
<https://www.fws.gov/sites/default/files/documents/USFWS.2018%20report.%20Rangewide%20monitoring%20report%202017.pdf>
- [USFWS] U.S. Fish and Wildlife Service. 2019a. 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
- [USFWS] U.S. Fish and Wildlife Service. 2019b. Range-wide Monitoring of the Mojave Desert Tortoise (*Gopherus agassizii*): 2018 Annual Reporting. Report by the Desert Tortoise Recovery Office, U.S. Fish and Wildlife Service, Reno, Nevada.
<https://www.fws.gov/sites/default/files/documents/USFWS.2019%20report.%20Rangewide%20monitoring%20report%202018.pdf>
and
<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=174633&inline>

- [USFWS] U.S. Fish and Wildlife Service. 2020. Range-wide Monitoring of the Mojave Desert Tortoise (*Gopherus agassizii*): 2019 Annual Reporting. Report by the Desert Tortoise Recovery Office, U.S. Fish and Wildlife Service, Reno, Nevada. 42 pages.
https://www.fws.gov/sites/default/files/documents/2019_Rangewide%20Mojave%20Desert%20Tortoise%20Monitoring.pdf
- [USFWS] U.S. Fish and Wildlife Service. 2022. Range-wide Monitoring of the Mojave Desert Tortoise (*Gopherus agassizii*): 2021 Annual Reporting. Report by the Desert Tortoise Recovery Office, U.S. Fish and Wildlife Service, Reno, Nevada.
<https://www.fws.gov/sites/default/files/documents/USFWS.2022%20report.%20Rangewide%20monitoring%20report%202021.pdf>
- [USFWS] U.S. Fish and Wildlife Service. 2024. Range-wide Monitoring of the Mojave Desert Tortoise (*Gopherus agassizii*): 2022 Annual Reporting. Report by the Desert Tortoise Recovery Office, U.S. Fish and Wildlife Service, Las Vegas, Nevada.
<https://www.fws.gov/media/2022-rangewide-mojave-desert-tortoise-monitoring>
- [USFWS] U.S. Fish and Wildlife Service. 2025a. Range-wide Monitoring of the Mojave Desert Tortoise (*Gopherus agassizii*): 2023 Annual Reporting. Report by the Desert Tortoise Recovery Office, U.S. Fish and Wildlife Service, Las Vegas, Nevada.
https://www.fws.gov/sites/default/files/documents/2025-05/usfws_2023_rangewide-mojave-desert-tortoise-monitoring.pdf
- [USFWS] U.S. Fish and Wildlife Service. 2025b. Range-wide Monitoring of the Mojave Desert Tortoise (*Gopherus agassizii*): 2024 Annual Reporting. Report by the Desert Tortoise Recovery Office, U.S. Fish and Wildlife Service, Las Vegas, Nevada.
<https://www.fws.gov/sites/default/files/documents/2025-08/2024-range-wide-mojave-desert-tortoise-monitoring-report.pdf>
- von Seckendorff Hoff, K. and R. Marlow. 2002. Impacts of vehicle road traffic on desert tortoise populations with consideration of conservation of tortoise habitat in southern Nevada. *Chelonian Conservation and Biology* 4: 449–456.
- Warren, S. D. 2003. Synopsis: influence of biological soil crusts on arid land hydrology and soil stability. Biological soil crusts: structure, function and management. Pages 349–360 in J. Belnap, and O. L. Lange, editors. *Ecological studies*, 150. Springer-Verlag, Berlin, Germany.