



DESERT TORTOISE COUNCIL

3807 Sierra Highway #6-4514

Acton, CA 93510

www.deserttortoise.org

eac@deserttortoise.org

Via email and BLM NEPA eplanning portal

April 14, 2023

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

RE: Washington City Water Tank and Pipeline Draft Environmental Assessment
(DOI-BLM-UT-C030-2023-0021-EA)

Dear Ms. McCall,

The Desert Tortoise Council (Council) is a non-profit organization comprised of hundreds of professionals and laypersons who share a common concern for wild desert tortoises and a commitment to advancing the public's understanding of desert tortoise species. Established in 1975 to promote conservation of tortoises in the deserts of the southwestern United States and Mexico, the Council routinely provides information and other forms of assistance to individuals, organizations, and regulatory agencies on matters potentially affecting desert tortoises within their geographic ranges.

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

Desert Tortoise Council
3807 Sierra Highway #6-4514
Acton, CA 93510.

Our email address has not changed. Both addresses are provided above in our letterhead for your use when providing future correspondence to us.

We appreciate this opportunity to provide comments on the above-referenced project. Given the location of the proposed project in habitats likely occupied by Mojave desert tortoise (*Gopherus*

agassizii) (synonymous with Agassiz's desert tortoise), our comments pertain to enhancing protection of this species during activities funded, authorized, or carried out by the Bureau of Land Management (BLM), which we assume will be added to the Decision Record for this project as needed. Please accept, carefully review, and include in the relevant project file the Council's following comments and attachments for the proposed project.

The Mojave desert tortoise is among the top 50 species on the list of the world's most endangered tortoises and freshwater turtles. The International Union for Conservation of Nature's (IUCN) Species Survival Commission, Tortoise and Freshwater Turtle Specialist Group, now considers the Mojave desert tortoise to be Critically Endangered (Berry et al. 2021), "... based on population reduction (decreasing density), habit loss of over 80% over three generations (90 years), including past reductions and predicted future declines, as well as the effects of disease (upper respiratory tract disease/mycoplasmosis). *Gopherus agassizii* (sensu stricto) comprises tortoises in the most well-studied 30% of the larger range; this portion of the original range has seen the most human impacts and is where the largest past population losses had 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." It is one of three turtle and tortoise species in the United States to be critically endangered.

This status, in part, prompted the Council to join Defenders of Wildlife and the Desert Tortoise Preserve Committee (Defenders et al. 2020) to petition the California Fish and Game Commission in March 2020 to elevate the listing of the Mojave desert tortoise from threatened to endangered in California.

Description of Proposed Action and Alternatives

Washington City (Applicant) filed a right-of-way (ROW) application with the BLM for a ROW on approximately 2.3 acres of land managed by the BLM (Project Area) for a water tank, water pipeline, and access road)(Project).

BLM analyzed two alternatives in the draft environmental assessment (draft EA), the No Action Alternative and the Proposed Action Alternative.

No Action Alternative: BLM would not grant a ROW to the Applicant and the construction and operation and maintenance of the water tank, pipeline, access road and powerline on BLM land and associated pump station and pipeline on private land would not occur.

Proposed Action Alternative: The Proposed Action Alternative is for the construction, operations, and maintenance of a water storage tank, water transmission pipeline, temporary and permanent access maintenance road, powerline, pump station, and drainage ditches. Construction phase would take to 9 months. Operation and maintenance phase would likely be for several decades or longer.

Water Storage Tank – A 2-million-gallon cylindrical water storage tank 140 feet in diameter and 25 feet tall would be constructed on a poured concrete base and partially buried. The footprint of the tank would be about 1 acre including the perimeter fence. An additional 1.5 acres would be needed during construction including cut and fill areas. Blasting may be required during construction.

Water Transmission Pipeline – This feature would occur on BLM and private land. On BLM land, a 16-inch diameter pipeline would be buried 3 feet below grade following mostly an existing two-track road. The ROW length for the pipeline would be 1,850 feet. The construction width would be 50 feet with a final width for operations and maintenance of 30 feet. An additional 2,850 feet of pipeline would be constructed and maintained on private land.

Access Road – The construction and maintenance road would occur on BLM land (1,850 feet long) and private land (2,750 feet long). The ROW for the improved road would be 30 feet. During the construction phase, the road would be improved to accommodate transport of heavy equipment. After completion of construction phase, the “access road would be rehabbed to 15 feet within the 30-foot ROW and surfaced with untreated road base.”

Water Pump Station – The pump station would be constructed on private land. No information was provided on its size or components. The long-term impacts would affect 0.3 acre.

Powerline – The powerline from the pump station to the tank would be buried 3 to 4 feet deep in the ROW.

Drainage Ditches – Following site clearing and grading, berms and drainage ditches may be constructed to contain runoff and divert floodwaters from the construction area. The berms and ditches would be incorporated into the final grading of the facility site.

Operations and maintenance would consist of the City visiting the “tank site approximately once per week for routine inspection and maintenance of equipment.”

Elevations range from approximately 2,800 feet at the proposed pump station site to approximately 3,200 feet near the tank site. The Proposed Action is located in Washington City, Washington County, Utah.

Two other alternative sites were considered but dismissed. Both alternative sites were 700-800 feet farther away from the service area/pump station. Because more BLM lands and pipeline ROW would be required, BLM eliminated them from further analysis.

Comments on the Draft Environmental Assessment

In the draft EA, BLM says it prepared this draft EA to provide “a site-specific analysis of potential impacts that could result with the implementation of the Proposed Action or alternatives to the Proposed Action.” While site-specific analysis is required in an environmental assessment or

environmental impact statement, for this Proposed Action, we believe additional analysis is necessary to meet regulatory requirements.

Connected Actions

In the draft EA, BLM says the “proposed water tank and pipeline would provide water for the increasing population and development within the Long Valley area of Washington City.” “The location of the proposed water tank and pipeline on BLM-administered public lands was chosen because it meets the future needs of Washington City and has the elevation required for proper distribution function during peak day demand and to meet fire flow and emergency requirements.”

The Council interprets this wording to mean “but for” the construction, operations, and maintenance of the water storage tank, water transmission pipeline, and water pump station, the planned future development of Washington City in this area would not occur. If true, the Proposed Action Alternative would be a “connected action” to the future planned development in Washington City.

The Council on Environmental Quality’s (CEQ) Regulations for Implementing the National Environmental Policy Act (NEPA) requires that “connected actions” be considered together during a NEPA environmental impact analysis (40 Code of Federal Regulations (CFR) 1508.25). As a connected action, the draft EA should include an analysis of impacts from this planned development in Washington City in addition to the site-specific impacts from the construction, operations, and maintenance of the water storage tank, water transmission pipeline and water pump station.

The Federal Land Policy and Management Act (FLPMA), section 302(b) says, “[i]n managing the public lands the Secretary [of the Interior] shall, by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the lands.” This would include placing a non-federal project on BLM land if locations other than BLM land are available to meet Washington City’s water need.

We found little information in the draft EA describing the operations and maintenance activities or analysis of their impacts. BLM describes these activities as “Washington City maintenance crews may occasionally visit the tank site in a pickup truck.” In section 2.2.4.3 Inspection and Maintenance Schedule – “A detailed operations and maintenance plan would be developed for the tank site and other project components during facility construction and prior to operation. It is anticipated that the City will visit the tank site approximately once per week for routine inspection and maintenance of equipment.” We conclude that BLM does not know what the activities are that would be conducted during the operations and maintenance phase of the Proposed Project Alternative. If the activities are unknown, their resulting impacts cannot be analyzed in the draft EA.

Using operations and maintenance plans from other water purveyors, we would predict that maintenance work to clean/repair/replace components such as valves, segments of pipe, etc. would be needed among other activities and that for some of these activities chemicals would be used. We contend that this draft EA document should include a description of the actual or likely

operation and maintenance activities and an analysis of their impacts to the resource issues including the tortoise/tortoise habitat. Again, the construction phase of the Proposed Action Alternative is “connected” to the operations and maintenance phase under NEPA.

We request that BLM revise the NEPA document to demonstrate compliance with these regulatory requirements.

Alternatives to the Proposed Action

BLM analyzed one action alternative in the draft EA, the Proposed Action Alternative. To comply with section 102(2)(E) of NEPA, there should be one or more additional action alternatives presented in the EA that are sufficiently broad and meet the purpose and need of the Proposed Action – in other words, a "reasonable range of alternatives," and not limit the EA to only one action alternative. This requirement is supported by BLM’s NEPA Handbook (2008). The BLM NEPA Handbook directs BLM to “study, develop, and describe appropriate alternatives to recommended courses of action in any proposal that involves unresolved conflicts concerning alternative uses of available resources...”.

In the EA, BLM stated that the “proposed pipeline would connect the proposed tank to the proposed pump station and existing Washington City water distribution system.” In Appendix B, BLM says, the proposed “tank is part of the Washington City’s general plan and will work in conjunction with seven other existing water storage tanks to provide storage for the entire city.” This information suggests that there may be other locations for the water storage tank, as all existing tanks and the proposed tank are linked. Please provide additional information in the NEPA document on other locations in the area of Washington City, including locations not on BLM land, that would or would not provide the storage of water needed by Washington City for future development. BLM would then use this information to develop and analyze additional action alternatives or explain why the other alternatives including those not on BLM land are not feasible.

Analysis of Direct Impacts

In the draft EA, BLM says the ROW application is for 2.3 acres of BLM land. However, in Table 2.1, BLM says the surface disturbance would directly impact 4.6 acres of BLM land. Please explain this discrepancy in the draft EA.

The draft EA describes about half of the habitat directly impacted from the Proposed Action as temporary even though the impacts would be long-term (defined in the draft EA as “generally last longer than five years”). For native vegetation to recover following land clearing activities such as grading or trenching takes several decades to centuries (Abella 2010). This description of the impacts as temporary is misleading and inaccurate with respect to natural resources. We suggest clarifying it and say that although there are areas that would be used during the construction phase of the Proposed Action Alternative, the impacts /disturbance are long-term. Please make this change and revise the Project Major Components, Summary of Surface Disturbance, Table 2.1, Table 2-2, Environmental Impact - Proposed Action, and Cumulative Effects sections of the draft EA.

Analysis of Indirect Impacts

Growth-inducing Impacts - According to the BLM NEPA Handbook (2008), “[i]ndirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on water and air and other natural systems, including ecosystems” (40 CFR 1508.8(b)).” The removal of obstacles to population growth (e.g., availability of water supply), or actions that encourage and facilitate other activities beyond those proposed by the project are examples of growth-inducing effects. According to CEQ, “EAs and EISs must analyze and describe the direct effects and indirect effects of the proposed action and the alternatives on the quality of the human environment (40 CFR 1508.8, as cited in BLM 2008). “‘Human environment’ shall be interpreted comprehensively to include the natural and physical environment and the relationship of people with that environment. (See the definition of “effects” (§1508.8)” (40 CFR 1508(25)). We request that the draft EA be revised to include an analysis of the growth-inducing effects from the additional water and human population growth and development to the tortoise and its nearby habitat (e.g., free-roaming dog, collection, vandalism, etc.).

Other Indirect Impacts – Subsidized Predators; Invasive Plants Species; Increased Fire Frequency, Size, and Intensity; Habitat Loss/Degradation; Blasting, etc.

These are examples of indirect impacts that result from a project with surface disturbance in the Mojave Desert. We were unable to find an analysis of these indirect impacts to the tortoise/tortoise habitat in the draft EA. We request that BLM revise the draft EA to include these and other relevant indirect impacts to the tortoise/tortoise habitat. Although some of these impacts have Environmental Protection Measures (i.e., measures to mitigate impacts) in the draft EA, we were unable to find an analysis of these impacts to tortoise/tortoise habitats prior to implementation of these Measures.

To assist BLM with this analysis, we have provided information on one of the indirect impacts, subsidized predators, below.

Subsidized Predators: One example of an indirect impact to the tortoise from construction, operations, and maintenance of the Proposed Action Alternative and development of the nearby area is increased tortoise predation. Common ravens are known to prey on juvenile desert tortoises based on direct observations and circumstantial evidence, such as shell-skeletal remains with holes pecked in the carapace (Boarman 1993). The number of common ravens increased by 1,528% in the Mojave Desert since the 1960s (Boarman 1993). This increased in raven numbers is attributed to unintentional subsidies provided by humans.

In the Mojave Desert, common ravens are subsidized predators because they benefit from resources associated with human activities that allow their populations to grow beyond their “natural” carrying capacity in the desert habitat. Kristan et al. (2004) found that human developments in the western Mojave Desert affect raven populations by providing food subsidies, particularly trash and road-kill. Boarman et al. (2006) reported raven abundance was greatest near resource subsidies (specifically food = trash and water). Human subsidies include food and water from landfills and other sources of waste, reservoirs, sewage ponds, agricultural fields, feedlots,

gutters, as well as perch, roost, and nest sites from power towers, telephone poles, light posts, billboards, fences, freeway or railroad overpasses, abandoned vehicles, and buildings (Boarman 1993). Subsidies allow ravens to survive in the desert during summer and winter when prey and water resources are typically inactive or scarce. Boarman et al. (1993) concluded that the human-provided resource subsidies must be reduced to facilitate a smaller raven population in the desert and reduced predation on the tortoise.

Coyotes are known predators of tortoises. High adult tortoise mortality from coyote predation was reported by Petersen (1994), Esque et al, (2010) and Nagy et al. (2015). In some areas, numbers of ravens correlated positively with coyote abundance (Boarman et al. 2006). Lovich et al. (2014) reported tortoise predation may be exacerbated by drought if coyotes switch from preferred mammalian prey to tortoises during dry years. Because the Mojave Desert has been in a multi-decade drought (Stahle 2020, Williams et al. 2022) due to climate change and drought conditions of increased duration and intensity are expected to continue in future years, increased predation pressure from coyotes on tortoises is expected to continue.

The Proposed Action Alternative during construction, operations, and maintenance and the connected residential/commercial development during construction and use would likely increase the availability of human-provided subsidies for predators of the tortoise including the common raven and coyote. For example, during the construction phase of the Proposed Action Alternative and residential/commercial development, the water used to control dust and the waste generated during construction including food brought to the Project site by workers for meals, etc., are examples of food and water subsidies for ravens and coyotes that would attract these predators to the Project area and increase their numbers in the surrounding area. The presence of food waste during operations and maintenance phase of the Proposed Action Alternative and the residential/commercial development would provide food subsidies for ravens and coyotes.

These subsidies of tortoise predators could be mitigated by requiring Best Management Practices (BMPs) that include using water for dust suppression so it does not form puddles, requiring waste containers that are predator-proof and wind-proof and are regularly maintained by the Contractor and the Applicant, etc.

We request that BLM revise the NEPA document and include the analysis of increased predation and other indirect impacts to the tortoise that may occur from the construction, operations, and maintenance of the Proposed Action alternative and connected residential/commercial development. BLM should require the Applicant to ensure that effective mitigation measures are added to the ROW grant as Applicant-Committed Environmental Protection Measures (ACEPMs) to substantially reduce/eliminate these indirect impacts to the tortoise and other special status species and coordinate the development and implementation of these additional ACEPMs with Utah Division of Wildlife Resources (UDWR) and USFWS.

Analysis of Impacts before and as a Result of Implementing Mitigation

NEPA requires analysis of the impacts to the resource issues before implementing mitigation measures. There is no guarantee that the mitigation measures in the NEPA document will be implemented, and if implemented, will be successful. We request that BLM comply with this

requirement for analysis of direct, indirect, and cumulative impacts to the tortoise and tortoise habitat both before the implementation of mitigation measures and after. The effectiveness of the mitigation should be supported in the draft EA with references from the scientific literature.

In the draft EA, BLM reports that the project site has been heavily invaded by cheat grass. This indicates that BLM's past management actions to comply with Executive Order 13112 of February 3, 1999 and Executive Order 13751 of December 5, 2016, that require federal agencies "to prevent the introduction, establishment, and spread of invasive species, as well as to eradicate and control populations of invasive species that are established" have not been effective.

Further, FLPMA, section 302(b) says, "[i]n managing the public lands the Secretary [of the Interior] shall, by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the lands." This would include establishment, existence, and proliferation of invasive plant species in the Mojave Desert.

For invasive plant species, we were unable to find effective mitigation measures (i.e., Environmental Protection Measures) that would be implemented to comply with the Executive Orders during all phases of the Proposed Action Alternative. Similarly, we found no analysis of impacts or effective mitigation measures for the connected residential/commercial development. Please revise the draft EA to include the analyses and mitigation to comply with NEPA, these executive orders, and FLPMA.

Cumulative Effects Analysis

In the draft EA, BLM designated a "cumulative impact analysis area (CIAA) [that] consists of approximately 3,130-acre area including the proposed project area and adjacent land."

CEQ (1997) states "Determining the cumulative environmental consequences of an action requires delineating the cause-and-effect relationships between the multiple actions and the resources, ecosystems, and human communities of concern. The range of actions that must be considered includes not only the project proposal but all connected and similar actions that could contribute to cumulative effects." The analysis "must describe the response of the resource to this environmental change." Cumulative impact analysis should "address the sustainability of resources, ecosystems, and human communities." This CEQ document is referred to in BLM's National Environmental Policy Act Handbook (BLM 2008).

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

1. Cumulative effects are caused by the aggregate of past, present, and reasonable future actions.

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

2. Cumulative effects are the total effect, including both direct and indirect effects, on a given resource, ecosystem, and human community of all actions taken, no matter who (federal, non-federal, or private) has taken the actions.

Individual effects from disparate activities may add up or interact to cause additional effects not apparent when looking at the individual effect at one time. The additional effects contributed by actions unrelated to the proposed action must be included in the analysis of cumulative effects.

3. Cumulative effects need to be analyzed in terms of the specific resource, ecosystem, and human community being affected.

Environmental effects are often evaluated from the perspective of the proposed action. Analyzing cumulative effects requires focusing on the resources, ecosystem, and human community that may be affected and developing an adequate understanding of how the resources are susceptible to effects.

4. It is not practical to analyze the cumulative effects of an action on the universe; the list of environmental effects must focus on those that are truly meaningful.

For cumulative effects analysis to help the decision maker and inform interested parties, it must be limited through scoping to effects that can be evaluated meaningfully. The boundaries for evaluating cumulative effects should be expanded to the point at which the resource is no longer affected significantly or the effects are no longer of interest to the affected parties.

5. Cumulative effects on a given resource, ecosystem, and human community are rarely aligned with political or administrative boundaries.

Resources are typically demarcated according to agency responsibilities, county lines, grazing allotments, or other administrative boundaries. Because natural and sociocultural resources are not usually so aligned, each political entity actually manages only a piece of the affected resource or ecosystem. Cumulative effects analysis on natural systems must use natural ecological boundaries and analysis of human communities must use actual sociocultural boundaries to ensure including all effects.

6. Cumulative effects may result from the accumulation of similar effects or the synergistic interaction of different effects.

Repeated actions may cause effects to build up through simple addition (more and more of the same type of effect), and the same or different actions may produce effects that interact to produce cumulative effects greater than the sum of the effects.

7. Cumulative effects may last for many years beyond the life of the action that caused the effects.

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

8. Each affected resource, ecosystem, and human community must be analyzed in terms of its capacity to accommodate additional effects, based on its own time and space parameters.

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

Thus, for each resource issue analyzed (see #2, 5, 6, and 8), the CIAA would be different.

The cumulative impacts analysis that we found in the draft EA was limited to comparing the acres lost from project implementation versus acres remaining after construction and mitigation. When considering natural resource issues such as vegetation or wildlife, especially threatened or endangered species, analyzing impacts using only a simple comparison of 'quantity of acres developed versus acres remaining' analysis, which is what BLM provided in the draft EA. Habitat quality, arrangement, and connectivity as well as population demographics/population viability and population connectivity are some of the factors that are used when analyzing cumulative impacts.

Please revise the draft EA to ensure that the CEQ's "Considering Cumulative Effects under the National Environmental Policy Act" (1997) is followed, including all eight principles, when analyzing the cumulative effects of the alternatives to the tortoise and its habitat. When conducting this analysis, ensure that the conclusions are supported with scientific data. The NEPA regulations and BLM (2008) direct that science will be used in conducting analyses.

- 40 CFR 1507(2)(a) - "insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decisionmaking which may have an impact on the human environment."
- 40 CFR 1500.1(b) - "The information must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA."
- 40 CFR 1502.24 Methodology and scientific accuracy - Agencies shall insure the professional integrity, including scientific integrity, of the discussions and analyses in environmental impact statements. They shall identify any methodologies used and shall make explicit reference by footnote to the scientific and other sources relied upon for conclusions in the statement.

Agency Consultation and Coordination

In Section 4.1 of the draft EA, BLM provides information on the persons, groups, agencies, or other parties consulted or coordinated with during the preparation of this analysis. Two entities were listed. One was the U.S. Fish and Wildlife Service for section 7 consultation under the Federal Endangered Species Act (FESA). The other was the Utah Department of Transportation. UDWR was not an agency that was listed with whom BLM coordinated or consulted regarding the Proposed Action Alternative. We urge BLM to coordinate with the UDWR for impacts to wildlife resources including the Mojave desert tortoise prior to revising this EA.

In this section of the draft EA, BLM indicated it had conducted informal consultation with the USFWS regarding Mojave Desert tortoise with recommendations for ACEPMs. Because the draft

EA implies that section 7 consultation has already occurred, we request that information on the required compensation for the tortoise be included in this NEPA document.

In addition, we request that a copy of BLM's biological assessment/biological evaluation of the Proposed Action Alternative and the USFWS's concurrence letter be included in the revised EA. We request this because we are unsure how the USFWS was able to make a determination of "may affect but is not likely to adversely affect" when BLM does not have a description of the activities that would be conducted during the operations and maintenance phase of the Proposed Action Alternative or an analysis of the impacts to the tortoise from implementation of these activities. Please see "Connected Actions" above.

From Table 2-2" of the draft EA, the ACEPMs for the tortoise are:

- (1) A desert tortoise monitor (DTM) would conduct a clearance survey immediately prior to initiation of site construction.
- (2) The DTM would hold a preconstruction meeting with the contractor and all workers that would be onsite during construction and provide desert tortoise awareness training and certification for all onsite workers. The tortoise awareness training would include a handout with instructions and contact information for reference in the event a tortoise is found or wanders within the construction area.
- (3) The construction area would be enclosed in a silt fence to define the construction limits of the project. All ground disturbance and construction activities would be confined within the fence to prevent encroachment beyond the construction envelope.
- (4) A field contact representative (FCR) would be established to conduct daily clearance sweeps of the project area to ensure that there are no tortoises or tortoise hazards (ledges, trash, open excavations/holes, water puddles/ponds) within the construction area.
- (5) The DTM would complete a site visit every two weeks during the active season (February 15 – November 30) to check the construction disturbance limit fence and check for hazards to tortoise. Site visits by the DTM are not required during the less-active season (December 1 – February 14).
- (6) If a desert tortoise or fresh tortoise sign is found, the FCR would contact the monitor, the Utah Division of Wildlife Resources (UDWR) and the USFWS to discuss appropriate translocation, avoidance, and minimization measures based on the case-specific circumstances.
- (7) All desert tortoise habitat would be reclaimed with native vegetation seed. Stripped topsoil would be used for reclamation of temporary impact areas. Stripped topsoil containing resident biocrusts and associated mycorrhizal fungi should be used. Fill materials would be free of fines, waste, pollutants, and must be certified weed-free. The approved survey biologist would inspect reclamation activities at the end of construction to ensure disturbed areas are revegetated/restored according to the reclamation plan approved by the BLM AO.
- (8) Broadcast application of herbicides would be prohibited within the project area; if necessary, spot treatments would be applied by hand using herbicides approved by BLM in order to treat noxious weeds.
- (9) The DTM would prepare all survey reports and field notes and submit them to the USFWS every three months and at the project completion. Compensation for permanent loss of desert tortoise habitat as a result of the proposed project will be calculated during ESA Section 7 consultation and will be paid by the project proponent.

We have questions regarding some of these ACEPMs. For #1, a DTM would conduct the clearance surveys. The USFWS Field Manual describes clearance surveys (Chapter 6) and qualifications for persons authorized to conduct clearance surveys (Chapter 3). Clearance surveys should be conducted by persons with “thorough and current knowledge of desert tortoise identification, behavior, natural history, ecology, and physiology, and demonstrate substantial field experience and training to safely and successfully conduct their required duties.” For the Proposed Action, the BLM and USFWS would be agencies that would review the qualifications of the person(s) conducting clearance surveys. If approved, they would be authorized to conduct clearance surveys. We request that the ACEPMs include this information or be revised to say they will adhere to the protocols in the USFWS’s (2009) Desert Tortoise (Mojave Population) Field Manual (*Gopherus agassizii*).

We question #6 of the ACEPMs. Because the draft EA implies that a biological opinion would not be issued for the Proposed Action, take has not been authorized by the USFWS during construction, operations, or maintenance of the Proposed Action Alternative. Therefore, translocation or moving a tortoise would not be authorized. Consequently, we recommend this ACEPM eliminate “translocation” of the tortoise under informal consultation. Another option would be to completed formal consultation for the construction, operations, and maintenance of the Proposed Action Alternative and have the USFWS issue a biological opinion that authorized incidental take that would include translocation or moving tortoises. Please select one of these options and revise the NEPA document accordingly.

Mojave Desert Tortoise Protocols

The USFWS developed standard protocols (USFWS 2009, 2019) for the tortoise to implement for projects that occur within the range of the tortoise. These standard protocols include Preconstruction Surveys and Clearance Surveys. Please provide information in the draft EA that describes how the Proposed Action Alternative complies with these protocols.

We were unable to find in the draft EA a discussion of actions that were implemented to demonstrate compliance with these protocols (e.g., description of action area, description of transect widths, location of transects, etc.). In addition, the ACEPMs that are listed in the draft EA do not include standard measures implemented for projects that include trenching, blasting, and temporary storage and installation of pipes to ensure that that these actions are not likely to adversely affect the tortoise. For example, projects that involve trenching in tortoise habitat usually have requirements that trenches be checked as a minimum at the beginning and end of each day to see ensure that the tortoise and other wildlife species are in the trench. Trenches are also checked for wildlife species including tortoises immediately before they are backfilled. Pipes that are stored at the project site and the open end of installed pipes are capped to ensure that no tortoises or other wildlife are using them for cover sites. Pipes are inspected immediately before installation to ensure that no wildlife including tortoises are located inside them. We request that BLM review the standard mitigation measures to avoid take of tortoises for projects that include trenches, blasting, and pipes and add them as Environmental Protection Measures to the NEPA document.

Public Participation

In section 4.2 of the draft EA, BLM said “[s]coping letters were also sent to the persons, agencies and organizations as listed in Table 5-1 for comments on the proposed project. We searched the draft EA and appendices were unable to find Table 5-1 in the draft EA, and we did not find it listed in the Table of Contents.

In addition, the Council does not recall receiving a scoping letter requesting our comments on the proposed project. For several years, the Council has included in its letters to BLM, including the St. George Field Office, that “the Desert Tortoise Council wants to be identified as an Affected Interest for this and all other projects funded, authorized, or carried out by the BLM that may affect species of desert tortoises, and that any subsequent environmental documentation for this project is provided to us at the contact information listed above” in our letterhead. After a few years of BLM not honoring this request, we sent certified letters with this request in November 2019 to all BLM district managers in the range of the desert tortoise including the district manager for the Color Country District Office who supervises the St. George Field Office. We request that BLM explain to the Council why we were not contacted during the scoping period for this Project.

We appreciate this opportunity to provide comments on this project and trust they will help protect tortoises during any resulting authorized activities. Herein, we reiterate that the Desert Tortoise Council wants to be identified as an Affected Interest for this and all other projects funded, authorized, or carried out by the BLM that may affect species of desert tortoises, and that any subsequent environmental documentation for this project is provided to us at the contact information listed above. Additionally, we ask that you respond in an email that you have received this comment letter so we can be sure our concerns have been registered with the appropriate personnel and office for this project.

Respectfully,



Edward L. LaRue, Jr., M.S.
Desert Tortoise Council, Ecosystems Advisory Committee, Chairperson

Cc: Gloria Tibbetts, District Manager, Color Country, Bureau of Land Management, Cedar City, UT; BLM_UT_Cedar_City@blm.gov
Jason West Field Manager, St. George Field Office, Bureau of Land Management, St. George, UT; utsgmail@blm.gov
George Weekley, Deputy Field Supervisor, Utah Ecological Services Field Office, U.S. Fish and Wildlife Service, West Valley Circle, UT; george_weekley@fws.gov; https://mail.google.com/mail/?view=cm&fs=1&tf=1&to=utahfieldoffice_esa@fws.gov
Josh Rasmussen, Fish and Wildlife Supervisor, Washington County, Utah Ecological Services Field Office, U.S. Fish and Wildlife Service, West Valley Circle, UT; josh_rasmussen@fws.gov; https://mail.google.com/mail/?view=cm&fs=1&tf=1&to=utahfieldoffice_esa@fws.gov

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>
- 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. 2008c. H-1790-1 - National Environmental Policy Act Handbook. National Environmental Policy Act Program, Office of the Assistant Director, Renewable Resources and Planning, Washington, D.C. January 2008.
- Boarman, W.I. 1993. When a native predator becomes a pest—A case study. In Majumdar, S.K., Miller, E.W., Baker, D.E., Brown, E.K., Pratt, J.R., and Schmalz, R.F., eds., Conservation and resource management. Easton, Pennsylvania Academy of Science, p. 186–201.
- Boarman, W.I., M.A. Patten, R.J. Camp, and S.J. Collis. 2006. Ecology of a population of subsidized predators: Common ravens in the central Mojave Desert, California. *Journal of Arid Environments* 67 (2006) 248–261. <https://www.sciencedirect.com/science/article/abs/pii/S0140196306003016>
- [CEQ] Council on Environmental Quality. 1997. Considering Cumulative Effects under the National Environmental Policy Act. https://ceq.doe.gov/publications/cumulative_effects.html
- 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
- Esque, T.C., K.E. Nussear, K.K. Drake, A.D. Walde, K.H. Berry, R.C. Averill-Murray, A.P. Woodman, W.I. Boarman, P.A. Medica, J. Mack, and J.H. Heaton. 2010. Effects of subsidized predators, resource variability, and human population density on desert tortoise populations in the Mojave Desert, U.S.A. *Endangered Species Research* 12: 167–177. doi: 10.3354/esr00298. <https://www.int-res.com/articles/esr2010/12/n012p167.pdf>
- Kristan, W.B., W.I. Boarman, and J.J. Crayon. 2004. Diet composition of common ravens across the urban wildland interface of the west Mojave Desert. *Wildlife Society Bulletin* 32: 244–253. [https://wildlife.onlinelibrary.wiley.com/doi/abs/10.2193/0091-7648\(2004\)32\[244:DCOCRA\]2.0.CO;2](https://wildlife.onlinelibrary.wiley.com/doi/abs/10.2193/0091-7648(2004)32[244:DCOCRA]2.0.CO;2)

- Lovich, J.E., C.B. Yackulic, J.E. Freilich, M. Agha, M. Austin, K.P. Meyer, T.R. Arundel, J. Hansen, M.S. Vamstad, and S.A. Root. 2014. Climatic variation and tortoise survival—Has a desert species met its match? *Biological Conservation* 169: 214–224. <https://www.sciencedirect.com/science/article/pii/S0006320713003443>
- Nagy, K.A., L.S. Hillard, M.W. Tuma, and D.J. Morafka. 2015. Head-started desert tortoises (*Gopherus agassizii*)—Movements, survivorship and mortality causes following their release: *Herpetological Conservation and Biology* 10: 203–215.
- Peterson, C.C. 1994. Different rates and causes of high mortality in two populations of the threatened desert tortoise *Gopherus agassizii*. *Biological Conservation* 70: 101–108.
- Stahle, D.W. 2020. Anthropogenic megadrought. *Science* 368 (6488): 238-239. DOI: 10.1126/science.abb6902.
- [USFWS] U.S. Fish and Wildlife Service. 2009. Desert Tortoise (Mojave Population) Field Manual: (*Gopherus agassizii*). December 2009. Region 8, Sacramento, California. <https://www.fws.gov/sites/default/files/documents/Desert-Tortoise-Field-Manual.pdf>
- [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
- Williams, A.P., B.I. Cook, and J.E. Smerdon. 2022. Rapid intensification of the emerging southwestern North American megadrought in 2020–2021. *Nature Climate Change*. 12 (2022), pages 232–234. <https://doi.org/10.1038/s41558-022-01290-z>.