

**DESERT TORTOISE COUNCIL**

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**Via email only**

17 December 2023

Jim Morrissey, Planner

County of San Bernardino

Land Use Services Department, Planning Division

385 N. Arrowhead Ave 1st Floor

San Bernardino, CA 92415

[Jim.Morrissey@lus.sbcounty.gov](mailto:Jim.Morrissey@lus.sbcounty.gov)

RE: Initial Study / Mitigated Negative Declaration BMT Minneola Solar, Newberry Springs, CA  
(PROJ-2022-00071)

Dear Mr. Morrissey,

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.

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 habitat within the known distribution of 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 authorized by the San Bernardino County, which we recommend be added to the project terms and conditions in the authorizing permit. 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), 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 Desert Tortoise Preserve Committee (Defenders of Wildlife 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.

We appreciate that the San Bernardino County Land Use Services Department (County) contacted the Council directly so we would have the opportunity to provide comments on the above-referenced project. Our comments are intended to ensure that the County fully complies with the purpose and intent of the California Environmental Quality Act (CEQA), Federal Endangered Species Act (FESA), California Endangered Species Act (CESA), other applicable environmental laws, and the regulations and codes to implement these laws. Our focus is applying these laws to the tortoise and its habitat to provide for its conservation.

### **Description of the Proposed Project**

San Bernardino County Land Use Services Department (County) has received a request for a Conditional Use Permit (CUP) from BMT Minneola, LLC (Applicant or Project Proponent) to create a separate 27.2-acre (net) parcel from an existing 91.9-gross acre parcel to construct and operate a 3-megawatt community solar photovoltaic facility (please see Figure 1). The solar project would have a capacity of 3 megawatts (MW) and would utilize approximately 7,000 crystalline photovoltaic modules, which would be mounted on single axis trackers, and use twelve (12) 250 kilowatt (kW) inverters. The number of modules and inverters is subject to change depending on the final design and equipment availability. The facility will interconnect with a 12kv distribution circuit that serves loads in the local area, rather than an interconnection to a transmission circuit that would primarily serve users outside of the region. The project was designed as a Community Oriented Renewable Energy (CORE) project. Construction would take about 3 months.

The BMT Mineola Solar Project (proposed project) would be operated on an autonomous, unstaffed basis and monitored remotely from an existing off-site facility. Six to eight employees are expected to visit the site approximately fifteen days per year for routine maintenance. Operational activities are limited to monitoring plant performance, preventative, and unscheduled maintenance. Operation and maintenance vehicles will include trucks (pickup, flatbed), forklifts, and loaders for routine and unscheduled maintenance, and water trucks for solar module washing.

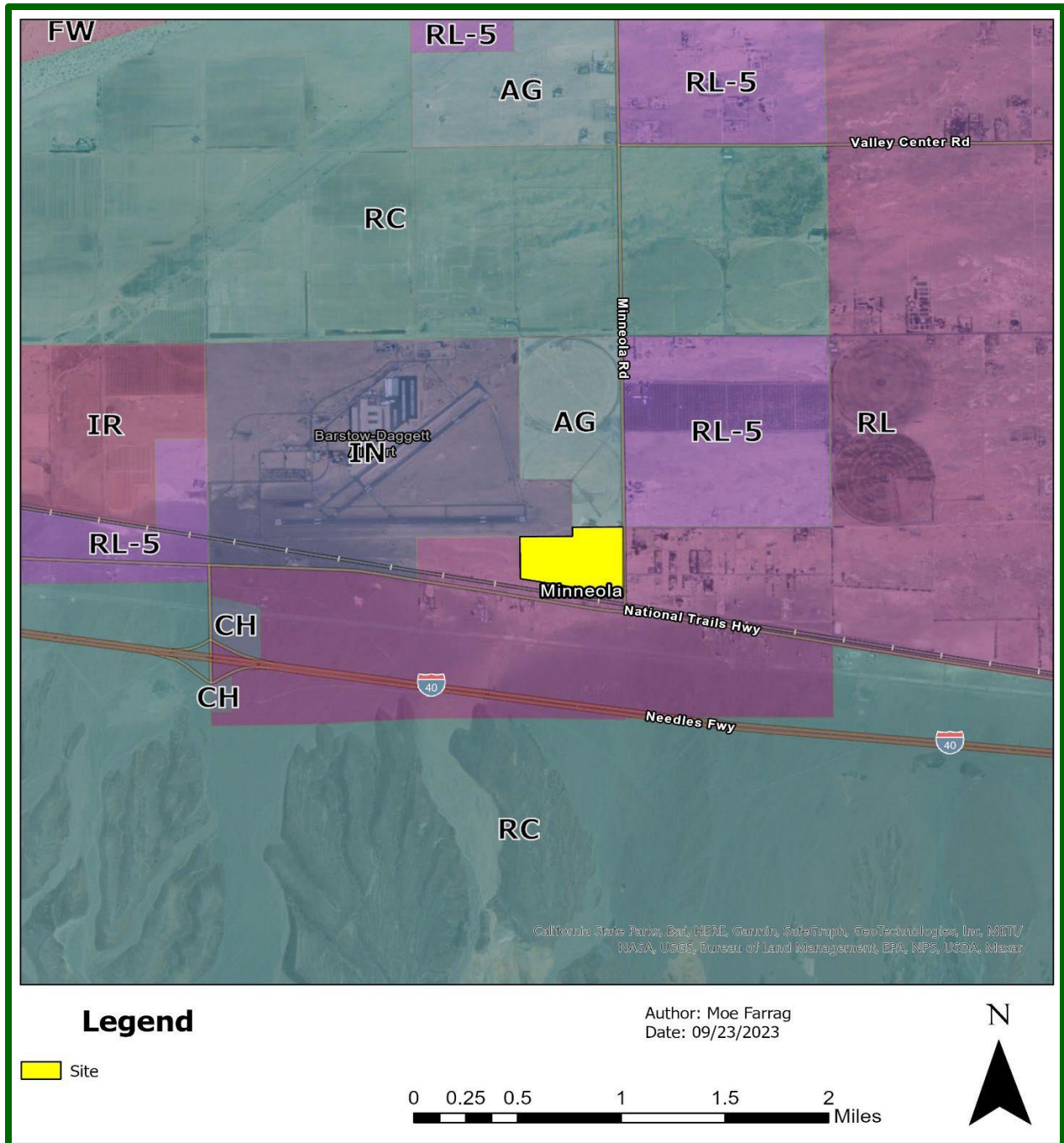


Figure 1. Location of the proposed BMT Minneola Solar Project.

Large heavy-haul transport equipment may be brought to the site infrequently for equipment repair or replacement. Southern California Edison (SCE) will make necessary inspections, maintenance and improvements to their facilities that are on-site connecting the Project to the distribution grid.

At the end of the Project’s operational term, the applicant may determine that the site should be decommissioned and deconstructed, or it may seek a revision to its Conditional Use Permit (CUP). Following the implementation of a decommissioning plan, all equipment, foundations, and fencing would be removed, and the project site would be re-vegetated so that the end use and site condition are consistent with the surrounding landscape.

The proposed project is located at the northwest corner of the intersection of Minneola Road and Larch Street in the community of Newberry Springs. It is just north of the National Trails Highway and southeast of the Barstow-Daggett Airport (please see Figure 1).

### **Comments on the Initial Assessment/Mitigated Negative Declaration**

#### **Page 8: Additional Approval Required by Other Public Agencies**

In the Initial Study/Mitigated Negative Declaration (IS/MND) the County says, “Other public agencies whose approval may be required (e.g., permits, financing approval, or participation agreement):

- Federal: N/A
- State of California: California Fish & Wildlife”

We thank the County for including California Department of Fish and Wildlife (CDFW) as an agency whose approval is likely needed.

The proposed project is located within the range of the desert kit fox, a protected furbearing mammal. California Code of Regulations, Chapter 5, section 460 (14 CCR § 460) prohibits “take” of desert kit fox for any reason. It is also in the range of the Mojave desert tortoise, a threatened species protected under the California Endangered Species Act (CESA). However, the County neglected to include the U.S. Fish and Wildlife Service (USFWS) under “Federal” agencies from which additional approval may be required. The tortoise is also protected under the Federal Endangered Species Act (FESA). We request that USFWS be added to the list of agencies whose approval may be required before implementing the proposed project.

#### **Pages 18-21: Biological Resources**

Under the resource issue “Biological Resources,” the IS/MND responds to six standard questions (A through F) from a CEQA Handbook to determine whether the impacts of a proposed project would need to be analyzed in an environmental impact report. Below the Council provides additional information to inform the County of the regulatory requirements for projects that occur within the distribution of special status species and to show that the County’s current responses to questions A, D, and E, including mitigation to be implemented, need to be revised.

**“Question A – Have substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?”**

The County’s response includes the following, “the Project Study Area will not affect any sensitive trees or shrubs.”

Rare Plant Survey Protocols: The Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities are described in the document accessed through this link - <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959&inline>. From information provided in the IS/MND and the Biological Assessment Report (BA Report), we were unable to determine whether CDFW protocols were followed and implemented. Please ensure that these protocols are implemented and the results provided to CDFW and included in the IS/MND and to provide a complete administrative record and document that the County has complied with CDFW requirements.

The County's response continues, "Based upon the completion of a Biological Survey of the property, which included a visual survey and trapping sessions performed by W.O.W. Environmental Consultants, no species or habitat were found for Mojave Ground Squirrel."

The IS/MND and BA Report do not provide information on whether the CDFW trapping protocol for the Mohave ground squirrel (CDFW 2023) was implemented. CDFW protocol trapping surveys are required to ascertain presence or absence of Mohave ground squirrel. These include multiple trapping events and during specific times of the year. Alternately, the Project Proponent may forego trapping surveys, assume presence, and acquire a 2081 Incidental Take Permit from the CDFW. We request that information on the methodology implemented when trapping for Mohave ground squirrels and the CDFW's protocol be added to one of these documents to provide a complete administrative record and document that the County has complied with CDFW requirements.

The County's response continues, "Consultants also conducted field surveys for Burrowing Owl (BUOW) and Desert Tortoise during the Spring of 2023. No BUOW were observed during the survey. The field results were negative for Desert Tortoise as well."

Western Burrowing Owl – Surveys for western burrowing owl should be coordinated with the USFWS, because the species is protected under the Migratory Bird Treaty Act, and the CDFW because the species is protected under California Fish and Game Code. CDFW has a survey protocol survey for the western burrowing owl (CDFG 2012) that W.O.W. Environmental Consultants may/may not have implemented. In addition to the project footprint, the survey protocol requires that peripheral transects be surveyed at 30-, 60-, 90-, 120-, and 150-meter intervals in all suitable habitats adjacent to the subject property to determine the potential indirect impacts of the project to this species. We request that information on the methodology implemented when surveying for the western burrowing owl and the CDFW's western burrowing owl protocol be added to the IS/MND or BA Report to provide a complete administrative record and document that the County has complied with CDFW requirements.

Mojave Desert Tortoise – The USFWS has two types of surveys for the Mojave desert tortoise, 100% coverage surveys (USFWS 2019) and tortoise clearance surveys (USFWS 2009). One-hundred-percent surveys are specific to transect width, approval of the biologist conducting the surveys, area to be surveyed (i.e., actions area), and in some cases, the time of year. One-hundred-percent surveys are conducted to determine whether tortoises/tortoise sign are present in the "action area" for the proposed project (USFWS 2019). The "action area" is defined in 50 Code of Federal Regulations 402.2 and the USFWS Desert Tortoise Field Manual (USFWS 2009) as "all areas to be affected directly or indirectly by proposed development and not merely the immediate area involved in the action" (50 Code of Federal Regulations §402.02). Thus, the 100% coverage survey area is larger than the project footprint/project site. CDFW has adopted the USFWS's 100% coverage survey as the methodology to use (<https://wildlife.ca.gov/Conservation/Survey-Protocols#377281283-reptiles>) to determine tortoise presence/use of the action area.

The methodology and results of the 100% coverage survey are described and submitted to USFWS and CDFW. If any tortoise sign is found, the Project Proponent should coordinate with USFWS and CDFW to determine whether "take" under FESA or CESA is likely to occur from implementation of the proposed project. If USFWS or CDFW determines that the construction,

operation/use, maintenance, or decommissioning of the proposed project is likely to result in take of the tortoise, the Project Proponent must obtain a Section 10(a)(1)(B) incidental take permit from the USFWS and a Section 2081 incidental take permit from the CDFW prior to conducting any ground disturbance. Note that “take” includes capture, harm, or harass.

The incidental take permit will require that the Project Proponent conduct clearance surveys (USFWS 2009). If any tortoises are found, the incidental take permit(s) will include instructions on moving tortoises, which is a type of take, from the area to be impacted as well as other measures to minimize and mitigate the impacts of the taking.

We remind the County that this and any other action funded, carried out, or authorized by the County such as issuance of a permit, must comply with FESA and CESA. Therefore, the County should require the Project Proponent to comply with the USFWS (2019) and CDFW 100% coverage survey protocol for the tortoise, and if the agencies determine an incidental take permit is required, the Project Proponent must obtain these incidental permits prior to initiating any clearance surveys (USFWS 2009) or ground disturbing activities. The County should require the Applicant to obtain incidental take permits if USFWS and/or CDFW determine that a permit is needed.

We request that the County require the Project Proponent to implement CDFW’s western burrowing owl survey protocol and USFWS’s 100% coverage survey protocol for the tortoise. The results of these surveys should be added to the IS/MND or BA Report to provide a complete administrative record and document that the County has complied with USFWS and CDFW requirements.

The County’s response continues, “One burrow appeared to be inactive and the other appeared to be for Mojave Desert kit fox (*Vulpes macrotis arsipus*).”

Desert Kit Fox: As mentioned above, California Fish and Game Code prohibits “take” of desert kit fox for any reason. CDFW uses the USFWS’s (2011) protocol for San Joaquin kit fox, (<https://www.fws.gov/sites/default/files/documents/survey-protocols-for-the-san-joaquin-kit-fox.pdf>) for surveying for the desert kit fox. We request that information on the methodology implemented when surveying for the desert kit fox and the CDFW’s desert kit fox protocol be added to the IS/MND or BA Report to provide a complete administrative record and document that the County has complied with CDFW requirements.

The County’s response continues, “The proposed project is expected to impact no more than 27.2 acres.”

This statement should be modified to read, “The proposed project is expected to **directly** impact no more than 27.2 acres **but indirectly impact a larger area.**” The IS/MND should include a description of indirect impacts to special status species including the tortoise.

Species may use areas adjacent to the project site along with the project site. Species in the area of the proposed project may be indirectly impacted by the construction, operation/use, maintenance, and/or decommissioning of the Proposed Project, and these activities may result in incidental take of these species that would violate federal laws/regulations and/or state laws/California Fish and Game Codes.

For the tortoise, many reasons for its substantial decline in the last few decades have been from indirect impacts. One example of an indirect impact from the Proposed Project's construction, operation/use, and/or maintenance that may result in take of the tortoise 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 increase in raven numbers is attributed to unintentional subsidies provided by humans in the Mojave Desert.

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. 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, dumpsters, 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). Human subsidies allow ravens to survive in the desert during summer and winter when prey and water resources are typically inactive or scarce in nature. Boarman (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 part of the range of the tortoise. 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 are expected to continue and intensify in future years, increased predation pressure from coyotes on tortoises is expected to continue.

The proposed project would increase the availability of human-provided subsidies for predators of the tortoise including the common raven and coyote primarily during construction and decommissioning, and to a lesser extent during operation/use/maintenance. For example, during the construction phase we presume that water would be used to control dust from soil that is disturbed (i.e., excavated, bladed, compacted, etc.) and the solid 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 site and increase their numbers in the surrounding area. Grading or digging at the site would unearth and injure, or kill fossorial animals and provide a subsidized food source for ravens and coyotes. During the operation/use/maintenance activities, the presence of food waste in waste containers/dumpsters may provide food subsidies for ravens and coyotes and water used for washing solar panels may provide a water source for these predators.

These subsidies of tortoise predators could be easily mitigated by requiring Best Management Practices (BMPs) that include limiting the use of water for dust suppression/cleaning panels so it does not form puddles or streams, requiring solid waste containers that are predator-proof, wind-proof, and regularly maintained by the Applicant/Owner of the property, and ensuring that any vertical structures (e.g., poles buildings, etc.) do not provide nesting substrate for ravens. We request that these BMPs be added to the CEQA document and the Applicant/Owner be required to implement them. Please see the Council's (2017) "A Compilation of Frequently Implemented Best Management Practices to Protect Mojave Desert Tortoise during Implementation of Federal Actions" ([https://deserttortoise.org/wp-content/uploads/dtc\\_construction\\_BMPs\\_090517.pdf](https://deserttortoise.org/wp-content/uploads/dtc_construction_BMPs_090517.pdf)) for examples of BMPs for the tortoise, many of which are applicable to the Proposed Project. While the title mentions implementation of Federal actions, the BMPs should also be implemented on non-Federal projects to avoid/minimize the likelihood of take under FESA and CESA.

We request that the County revise the CEQA document to include an analysis of increased predation and other indirect impacts to the tortoise that are likely to occur from the construction, operation/use, maintenance, and decommissioning of the proposed project. The County should require the Project Proponent to implement BMPs to substantially reduce/eliminate these indirect impacts to the tortoise and other special status species. Coordination with the USFWS and CFDW should occur in the finalization of these BMPs. In addition, the County should require the Project Proponent to contribute to the National Fish and Wildlife Foundation's Raven Management Fund for regional and cumulative impacts of projects that subsidize common ravens (USFWS 2010) and other predators of the tortoise and other wildlife, as other project proponents have done for projects on private property in San Bernardino County.

**“Question D - Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?”**

The County's response includes the following, "Due to the absence of sensitive biological species as described in the biological reports prepared by W.O.W. Environmental Consultants the Project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites, because there are no such corridors or nursery sites within or near the project site. Therefore, no impacts would occur."

The BA Report provided online to the public by the County did not provide information that protocol surveys for special status species (e.g., Mojave desert tortoise, Mohave ground squirrel, burrowing owl, kit fox) were conducted. Without this information, the County does not have sufficient data to claim that sensitive biological species are absent. Further, wildlife corridors are areas that are used periodically; they are not continuously occupied by wildlife species. Consequently, a one-day visit to a project site would not provide sufficient information that the project site or nearby areas would not interfere substantially with the movement of any native resident wildlife species or established native resident wildlife corridors.

We were disappointed that examination of species reports and the scientific literature were not conducted and cited to help determine whether wildlife corridors would be impacted by the proposed project. An online search of scientific literature (e.g., Google Scholar) would reveal the



existence of scientific papers on areas important for connectivity for species such as the Mojave desert tortoise and Mohave ground squirrel. For example, for the tortoise, Averill-Murray et al. (2021) published a paper on connectivity of Mojave desert tortoise populations and linkage habitat. The authors emphasized that “[m]aintaining an ecological network for the Mojave desert tortoise, with a system of core habitats (TCAs = Tortoise Conservation Areas) connected by linkages, is necessary to support demographically viable populations and long-term gene flow within and between TCAs.”

“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.” Furthermore, “habitat linkages among TCAs must be **wide enough** [emphasis added] to sustain multiple home ranges or local clusters of resident tortoises (Beier and others, 2008; Morafka, 1994), while accounting for edge effects, in order to sustain regional tortoise populations.” Consequently, effective linkage habitats are not long narrow corridors. Any development within them has an edge effect (i.e., indirect impact) that extends from all sides into the linkage habitat further narrowing or impeding the use of the linkage habitat, depending on the extent of the edge effect.

Averill-Murray et al. (2021) further notes that “To help maintain tortoise inhabitation and permeability across all other non-conservation-designated tortoise habitat, all surface disturbance could 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 caution that the upper threshold of 5 percent development per square kilometer may not maintain population sizes needed for demographic or functional connectivity; therefore, development thresholds should be lower than 5 percent.

The lifetime home range for the Mojave desert tortoise is more than 1.5 square miles (3.9 square kilometers) of habitat (Berry 1986) and, as previously mentioned, may make periodic forays of more than 7 miles (11 kilometers) at a time (Berry 1986).

For the Mohave ground squirrel, CDFW published “A Conservation Strategy for the Mohave Ground Squirrel, *Xerospermophilus mohavensis*” in 2019 (<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=171301&inline>). This document contains a map with linkage areas among the identified populations of the Mohave ground squirrel. Information from documents like these should be used to support the existence or absence of wildlife linkages in the project area and nearby.

We add that the fundamentals of conservation biology include the need for gene flow between populations to maintain genetic diversity; this enables a species to more likely survive, especially during climate change, which enables biodiversity. Thus, linkage habitats are important as they provide connectivity among wildlife populations to maintain viability and biodiversity.

**“Question E: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?”**

The County’s response includes the following, “Based on literature review and survey results, it has been concluded that the proposed project will result in minimal to no effects to special status species, including state or federal endangered and/or state or federal threatened species. There will be no effects on any sensitive plant communities or designated critical habitat because of this project location. No resource agency permits are anticipated because of this project. Therefore, impacts would be less than significant.”

We note that the project site was visited on April 16 to determine the potential for impacts to native vegetation, sensitive biological resources, jurisdictional waters, and/or wildlife. From this limited information, it appears that CDFW and USFWS protocol level surveys for special status species were not conducted. Until these surveys are conducted, the County is unable to say whether resource agency permits would be needed. The County should require the project proponent to (1) conduct protocol surveys for special status species and include these results in the revised BA Report, (2) conduct a search of the scientific literature to determine the needs of special status species with respect to linkage habitats, and (3) coordinate with USFWS and CDFW by presenting the results of the protocol surveys and search about linkage habitats to these agencies and requesting a determination from them on whether they would need to obtain incidental take permits. The project proponent should include this information in the BA Report to the County. With this information the County would have data to support a determination.

### **Mandatory Finding of Significance – Cumulative Impacts**

Two of the three questions in the CEQA Handbook for Mandatory Findings of Significance are applicable to the Mojave desert tortoise. They are:

Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

and

Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects?)

To assist the County in answering these two questions regarding the impacts to the tortoise, we are attaching "**Appendix A – Demographic Status and Trend of the Mojave Desert Tortoise including the Western Mojave Recovery Unit.**" Note that the Proposed Project is in the Western Mojave Recovery Unit, the tortoise populations in this Recovery Unit continue to be below the densities needed for population viability for almost a decade, and the density of tortoises continues to decline in the Western Mojave Recovery Unit. Also note that the tortoise cannot achieve recovery, that is, be removed from the list of threatened species under FESA unless recovery is achieved in all five recovery units including the Western Mojave Recovery Unit (USFWS 2011). Recovery criteria include having viable tortoise populations. We conclude that having populations below the density needed for population viability means these population are below the level needed to be self-sustaining and any additional impact to these populations would exacerbate this density below the level of self-sustaining, contribute to ongoing population declines, and extirpation. We conclude from these data that the answer to these two questions is "yes." Please include this information on the status and trend of the Mojave desert tortoise in the final, revised CEQA document.

## **Mitigation**

In the IS/MND, the County is recommending mitigation measures for biological resources. These include requiring two-weeks advance notification of a certified biologist prior to construction so “preconstruction” surveys could be conducted; vegetation removal would occur outside the bird breeding season, if possible; and if any species of concern are observed during construction activities, all work shall immediately cease, the Project Biologist shall be immediately notified, and work shall not resume until clearance is given by the Project Biologist, construction of a tortoise exclusionary fence, and “If a tortoise is present, all work and any activities that could harm the tortoise is to stop and the Lead Engineer or other designated person, is to be contacted to have the tortoise safely removed.”

Please note that removing a tortoise from the work area requires capturing. Take under FESA is defined as to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” Take under CESA is defined as to “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” Take includes capture, and under FESA, harm and harass. Take does not need to result in the injury or death of the tortoise. Consequently, implementation to this mitigation measure would violate both the FESA and CESA unless the Project Proponent first obtains an incidental take permit from USFWS and CDFW. Please correct the IS/MND to reflect this requirement.

In addition, the mitigation measures listed in the IS/MND would be implemented prior to and during construction. We found no mitigation measures identified to be implemented during the operation, maintenance, or decommissioning phases of the proposed project. For example, we found no requirement that the tortoise exclusionary fence would be regularly inspected and maintained during the life of the proposed project. Because tortoises have a large lifetime home ranges and make forays of several miles (please see our comment below under page 12 for the BA Report) a tortoise could wander into the project site through a downed portion of the exclusionary fence and become trapped inside the project site. This trapping is a form of take and would violate FESA and CESA unless the Project Proponent had been issued an incidental take permit.

We recommend that the County require the Project Proponent to consult with the USFWS and CDFW prior to conducting the 100% coverage and presence/absence protocol surveys for special status species to ensure those that are needed are implemented correctly, the results of these surveys are provided to the USFWS and CDFW, and additional consultation with these agencies occurs to determine the mitigation measures they deem necessary to avoid take of listed/protected species for all phases of the proposed project. If avoidance of take is not possible, the County should require the Project Proponent to obtain incidental take permits from USFWS and CDFW for the respective federally- and state-listed/protected species. These permits would likely require implementation of protocol clearance surveys.

### **Comments on the Biological Assessment Report**

The comments below are for the Biological Assessment Report, Minneola Solar Project, City [sic] of Newberry Springs, San Bernardino County, California – July 2023.

**Page 3:** “The biologists conducted a site visit on the project site on April 16th, 2023 to determine the potential for impacts to native vegetation, sensitive biological resources, jurisdictional waters,

and/or wildlife. In addition, the biologists reviewed “the project description, project plans, aerial and ground imagery (i.e., Google Earth and Google Maps), and project species lists provided by the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) website (Appendix A), and California Department of Fish and Wildlife’s (CDFW) California Natural Diversity Database (CNDDDB) (Appendix B), California Native Plant Society (Appendix C).” Accessing IPaC, CNDDDB, and CNPS data are the initial sources of biological information the biologists should access and we appreciate that these federal and state resources were accessed. However, we did not find the three Appendices referenced in the BA Report. The County should ensure that the entire BA Report is available for public review.

**Pages 4, 8, and 13:** The BA Report discusses federal jurisdictional waters of the United States under the Federal Clean Water Act, Sections 404 and 401 (see sections on **4 – Results – Project Impacts and 5 - Conclusions & Regulatory Determination – Wetlands and Other Waters Coordination Summary**). However, we found no information on compliance with California Fish and Game Code 1600 and whether a streambed alteration agreement would be needed from CDFW. Please add this information to the IS/MND and BA Report for jurisdictional waters of the State of California.

**Page 10:** “If any species of concern are observed during any phase or construction, the RE will need to contact the Biologist...” We searched the BA Report but were unable to find what “RE” means. Please add this information to the BA Report.

**Page 11:** Under Section **4 - Results: Biological Resources, Discussion of Impacts & Mitigation – Avoidance and Minimization Efforts/Compensatory Mitigation**, the BA Report says, “No work should commence until the vegetation to be removed has been surveyed for nesting birds, desert tortoise, desert wildlife and has been cleared by the Project Biologist.” If this is referring to clearance surveys for the tortoise as described by USFWS (2009), only authorized biologists approved by USFWS and CDFW can conduct clearance surveys. We are unsure whether the Project biologist has submitted their experience to these agencies and received approval to conduct clearance surveys for the tortoise. Please provide this information in the BA Report and IS/MND. In addition, the clearance survey protocol for the tortoise should be implemented as described in USFWS (2009).

In addition, on page 6, the BA Report mentions, “Biological Study Area (BSA) consists of a 200-foot buffer from the project vicinity.” The USFWS (2019) survey protocol for the tortoise is for the action area. The “action area” is defined above on page 5. Thus, the survey area is larger than the project footprint/project site and may be larger than the project site plus 200-foot buffer. CDFW has adopted the USFWS’s 100% coverage survey as the methodology to use (<https://wildlife.ca.gov/Conservation/Survey-Protocols#377281283-reptiles>) to determine tortoise presence/use of the action area.

Clearance surveys should be conducted after the tortoise exclusionary fence has been completed. The construction of this fence should occur under the supervision of an authorized tortoise biologist.

**Page 12:** “3. INSTALLATION OF DESERT TORTOISE EXCLUSIONARY FENCING around the construction site to prevent the entrance (sic) of surrounding wildlife present.” The tortoise exclusionary fence will not exclude all wildlife. It is designed to exclude tortoises from the project site. In addition, we are unsure from the information provided in the BA Report whether the exclusionary fence will be removed following completion of the construction phase or maintained for the life of the project. If the latter, the BA Report should require that the fence be regularly inspected for damage

including immediately after a rain event, and the fence should be repaired/replaced immediately to eliminate the likelihood that a tortoise from nearby areas will wander onto the project site and possibly become trapped within the site. This would constitute take under FESA and CESA and violate these two laws.

**Page 12:** “DO NOT HANDLE OR MOVE A TORTOISE – yourself. Only a qualified biologist is authorized to do so.” We found no information in the BA Report that the Project Proponent was obtaining an incidental take permit under section 10(a)(1)(B) of FESA or section 2081 of CESA for the tortoise. Consequently, no one would be authorized to handle or move a tortoise without these permits. Please revise the BA Report to reflect these restrictions/requirements.

**Page 13, Section 5 - Conclusions & Regulatory Determination – Federal Endangered Species Act Section 7 Consultation Summary:** The BA Report says, “no formal Endangered Species Act Section 7 consultation with federal agencies is required. Informal consultation for Endangered Species Act Section 7 was initiated through the generation of IPaC species list.” This statement is true because there is no federal nexus. Section 7 of the FESA only applies to projects that are authorized, funded, or carried out by a federal agency. Rather as a non-federal project, the proposed project falls under the jurisdiction of section 10(a)(1)(B) of the FESA and section 2081 of the CESA if any phase of the proposed project is likely to result in take (which includes capture, harm, and harass) of the tortoise or a federal or state listed species. Please modify the BA Report to show requirements and compliance with these laws.

**Page 13: Wetlands and Other Waters Coordination Summary –** “The proposed project will not result in any effects to wetlands or jurisdictional waters due to the absence of (Waters of the State, Waters of the U.S., etc.); therefore, no resource agency coordination or permits are required.” We found no discussion on compliance with California Fish and Game Code 1600 and whether a streambed alteration agreement would be needed from CDFW. Please add this information to the IS/MND and BA Report about this for jurisdictional waters of the State of California in this section.

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 County that may affect the desert tortoise. As an Affected Interest, the Council requests that the County contact the Council via email to advise us of the opening date of the public comment period for any proposed action that may affect tortoises/tortoise habitat. In addition, we request and that any subsequent environmental documentation for this Project is provided to us at the contact information listed above. 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.  
Chairperson, Ecosystem Advisory Committee

Attachment: Appendix A – Demographic Status and Trend of the Mojave Desert Tortoise including the Western Mojave Recovery Unit

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## **Appendix A**

### **Demographic Status and Trend of the Mojave Desert Tortoise including the Western Mojave Recovery Unit**

Status of the Population of the Mojave Desert Tortoise: The Council provides the following information for resource and land management agencies so that these data may be included and analyzed in their project and land management documents and aid them in making management decisions that affect the Mojave desert tortoise (tortoise).

There are 17 populations of Mojave desert tortoise described below that occur in Critical Habitat Units (CHUs) and Tortoise Conservation Areas (TCAs); 14 are on lands managed by the BLM; 8 of these are in the California Desert Conservation Area (CDCA).

As the primary land management entity in the range of the Mojave desert tortoise, the Bureau of Land Management's (BLM's) implementation of a conservation strategy for the Mojave desert tortoise in the CDCA through implementation of its Resource Management Plan and Amendments through 2014 has resulted in the following changes in the status for the tortoise throughout its range and in California from 2004 to 2014 (**Table 1, Table 2**; USFWS 2015, Allison and McLuckie 2018). The Council believes these data show that BLM and others have failed to implement an effective conservation strategy for the Mojave desert tortoise as described in the recovery plan (both USFWS 1994a and 2011), and have contributed to tortoise declines in density and abundance between 2004 to 2014 (**Table 1, Table 2**; USFWS 2015, Allison and McLuckie 2018) with declines or no improvement in population density from 2015 to 2021 (**Table 3**; USFWS 2016, 2018, 2019, 2020, 2022a, 2022b).

Important points from these tables include the following:

#### *Change in Status for the Mojave Desert Tortoise Range-wide*

- Ten of 17 populations of the Mojave desert tortoise declined from 2004 to 2014.
- Eleven of 17 populations of the Mojave desert tortoise are below the population viability threshold. These 11 populations represent 89.7 percent of the range-wide habitat in CHUs/TCAs.

#### *Change in Status for the Western Mojave Recovery Unit – Nevada and California*

- This recovery unit had a 51 percent decline in tortoise density from 2004 to 2014.
- Tortoises in this recovery unit have densities that are below viability.

#### *Change in Status for the Superior-Cronese Tortoise Population in the Western Mojave Recovery Unit.*

- The population in this recovery unit experienced declines in densities of 61 percent from 2004 to 2014. In addition, there was a 51 percent decline in tortoise abundance.
- This population has densities less than needed for population viability (USFWS 1994a).

**Table 1.** Summary of 10-year trend data for the 5 Recovery Units and 17 CHUs/TCAs for Mojave desert tortoise. The table includes the area of each Recovery Unit and CHU/TCA, percent of total habitat for each Recovery Unit and CHU/TCA, density (number of breeding adults/km<sup>2</sup> and standard errors = SE), and the percent change in population density between 2004 and 2014.

Populations below the viable level of 3.9 breeding individuals/km<sup>2</sup> (10 breeding individuals per mi<sup>2</sup>) (assumes a 1:1 sex ratio) or showing a decline from 2004 to 2014 are in red.

Recovery Unit: Designated Critical Habitat Unit <sup>1</sup> /Tortoise Conservation Area	Surveyed area (km <sup>2</sup> )	% of total habitat area in Recovery Unit & CHU/TCA	2014 density/km <sup>2</sup> (SE)	% 10-year change (2004–2014)
<b>Western Mojave, CA</b>	<b>6,294</b>	<b>24.51</b>	<b>2.8 (1.0)</b>	<b>-50.7 decline</b>
Fremont-Kramer	2,347	9.14	2.6 (1.0)	-50.6 decline
Ord-Rodman	852	3.32	3.6 (1.4)	-56.5 decline
Superior-Cronese	3,094	12.05	2.4 (0.9)	-61.5 decline
<b>Colorado Desert, CA</b>	<b>11,663</b>	<b>45.42</b>	<b>4.0 (1.4)</b>	<b>-36.25 decline</b>
Chocolate Mtn AGR, CA	713	2.78	7.2 (2.8)	-29.77 decline
Chuckwalla, CA	2,818	10.97	3.3 (1.3)	-37.43 decline
Chemehuevi, CA	3,763	14.65	2.8 (1.1)	-64.70 decline
Fenner, CA	1,782	6.94	4.8 (1.9)	-52.86 decline
Joshua Tree, CA	1,152	4.49	3.7 (1.5)	+178.62 increase
Pinto Mtn, CA	508	1.98	2.4 (1.0)	-60.30 decline
Piute Valley, NV	927	3.61	5.3 (2.1)	+162.36 increase
<b>Northeastern Mojave</b>	<b>4,160</b>	<b>16.2</b>	<b>4.5 (1.9)</b>	<b>+325.62 increase</b>
Beaver Dam Slope, NV, UT, AZ	750	2.92	6.2 (2.4)	+370.33 increase
Coyote Spring, NV	960	3.74	4.0 (1.6)	+ 265.06 increase
Gold Butte, NV & AZ	1,607	6.26	2.7 (1.0)	+ 384.37 increase
Mormon Mesa, NV	844	3.29	6.4 (2.5)	+ 217.80 increase
<b>Eastern Mojave, NV &amp; CA</b>	<b>3,446</b>	<b>13.42</b>	<b>1.9 (0.7)</b>	<b>-67.26 decline</b>
El Dorado Valley, NV	999	3.89	1.5 (0.6)	-61.14 decline
Ivanpah Valley, CA	2,447	9.53	2.3 (0.9)	-56.05 decline
<b>Upper Virgin River</b>	<b>115</b>	<b>0.45</b>	<b>15.3 (6.0)</b>	<b>-26.57 decline</b>
Red Cliffs Desert	115	0.45	15.3 (6.0)	-26.57 decline
<b>Range-wide Area of CHUs - TCAs/Range-wide Change in Population Status</b>	<b>25,678</b>	<b>100.00</b>		<b>-32.18 decline</b>

<sup>1</sup> U.S. Fish and Wildlife Service. 1994b. Endangered and threatened wildlife and plants; determination of critical habitat for the Mojave population of the desert tortoise. Federal Register 55(26):5820-5866. Washington, D.C.

**Table 2.** Estimated change in abundance of adult Mojave desert tortoises in each recovery unit between 2004 and 2014 (Allison and McLuckie 2018). Decreases in abundance are in red.

Recovery Unit	Modeled Habitat (km <sup>2</sup> )	2004 Abundance	2014 Abundance	Change in Abundance	Percent Change in Abundance
<b>Western Mojave</b>	23,139	131,540	64,871	-66,668	-51%
Colorado Desert	18,024	103,675	66,097	-37,578	-36%
Northeastern Mojave	10,664	12,610	46,701	34,091	270%
Eastern Mojave	16,061	75,342	24,664	-50,679	-67%
Upper Virgin River	613	13,226	10,010	-3,216	-24%
<b>Total</b>	<b>68,501</b>	<b>336,393</b>	<b>212,343</b>	<b>-124,050</b>	<b>-37%</b>

**Table 3.** Summary of data for Agassiz’s desert tortoise, *Gopherus agassizii* (=Mojave desert tortoise) from 2004 to 2021 for the 5 Recovery Units and 17 Critical Habitat Units (CHUs)/Tortoise Conservation Areas (TCAs). The table includes the area of each Recovery Unit and CHU/TCA, percent of total habitat for each Recovery Unit and CHU/TCA, density (number of breeding adults/km<sup>2</sup> and standard errors = SE), and percent change in population density between 2004-2014 (USFWS 2015). Populations below the viable level of 3.9 breeding individuals/km<sup>2</sup> (10 breeding individuals per mi<sup>2</sup>) (assumes a 1:1 sex ratio) (USFWS 1994a, 2015) or showing a decline from 2004 to 2014 are in **red**.

Recovery Unit: Designated CHU/TCA &	% of total habitat area in Recovery Unit & CHU/TCA	2004 density/ km <sup>2</sup>	2014 density/ km <sup>2</sup> (SE)	% 10- year change (2004– 2014)	2015 density/ km <sup>2</sup>	2016 density/ km <sup>2</sup>	2017 density/ km <sup>2</sup>	2018 density/ km <sup>2</sup>	2019 density/ km <sup>2</sup>	2020 density/ km <sup>2</sup>	2021 density/ km <sup>2</sup>
Western Mojave, CA	24.51		2.8 (1.0)	-50.7 decline							
Fremont-Kramer	9.14		2.6 (1.0)	-50.6 decline	4.5	No data	4.1	No data	2.7	1.7	No data
Ord-Rodman	3.32		3.6 (1.4)	-56.5 decline	No data	No data	3.9	2.5/3.4*	2.1/2.5*	No data	1.9/2.5*
Superior-Cronese	12.05		2.4 (0.9)	-61.5 decline	2.6	3.6	1.7	No data	1.9	No data	No data
Colorado Desert, CA	45.42		4.0 (1.4)	-36.25 decline							
Chocolate Mtn AGR, CA	2.78		7.2 (2.8)	-29.77 decline	10.3	8.5	9.4	7.6	7.0	7.1	3.9
Chuckwalla, CA	10.97		3.3 (1.3)	-37.43 decline	No data	No data	4.3	No data	1.8	4.6	2.6
Chemehuevi, CA	14.65		2.8 (1.1)	-64.70 decline	No data	1.7	No data	2.9	No data	4.0	No data
Fenner, CA	6.94		4.8 (1.9)	-52.86 decline	No data	5.5	No data	6.0	2.8	No data	5.3
Joshua Tree, CA	4.49		3.7 (1.5)	+178.62 increase	No data	2.6	3.6	No data	3.1	3.9	No data
Pinto Mtn, CA	1.98		2.4 (1.0)	-60.30 decline	No data	2.1	2.3	No data	1.7	2.9	No data

Piute Valley, NV	3.61		5.3 (2.1)	+162.36 increase	No data	4.0	5.9	No data	No data	No data	3.9
<b>Northeastern Mojave AZ, NV, &amp; UT</b>	<b>16.2</b>		<b>4.5 (1.9)</b>	<b>+325.62 increase</b>							
Beaver Dam Slope, NV, UT, & AZ	2.92		6.2 (2.4)	+370.33 increase	No data	5.6	1.3	5.1	2.0	No data	No data
Coyote Spring, NV	3.74		4.0 (1.6)	+ 265.06 increase	No data	4.2	No data	No data	3.2	No data	No data
Gold Butte, NV & AZ	6.26		2.7 (1.0)	+ 384.37 increase	No data	No data	1.9	2.3	No data	No data	2.4
Mormon Mesa, NV	3.29		6.4 (2.5)	+ 217.80 increase	No data	2.1	No data	3.6	No data	5.2	5.2
<b>Eastern Mojave, NV &amp; CA</b>	<b>13.42</b>		<b>1.9 (0.7)</b>	<b>-67.26 decline</b>							
El Dorado Valley, NV	3.89		1.5 (0.6)	-61.14 decline	No data	2.7	5.6	No data	2.3	No data	No data
Ivanpah Valley, CA	9.53		2.3 (0.9)	-56.05 decline	1.9	No data	No data	3.7	2.6	No data	1.8
<b>Upper Virgin River, UT &amp; AZ</b>	<b>0.45</b>		<b>15.3 (6.0)</b>	<b>-26.57 decline</b>							
Red Cliffs Desert**	0.45	29.1 (21.4- 39.6)**	15.3 (6.0)	-26.57 decline	15.0	No data	19.1	No data	17.2	No data	
<b>Rangewide Area of CHUs - TCAs/Rangewide Change in Population Status</b>	<b>100.00</b>			<b>-32.18 decline</b>							

\*This density includes the adult tortoises translocated from the expansion of the MCAGCC, that is resident adult tortoises and translocated adult tortoises.

\*\*Methodology for collecting density data initiated in 1999.

*Change in Status for the Mojave Desert Tortoise in California*

- Eight of 10 populations of the Mojave desert tortoise in California declined from 29 to 64 percent from 2004 to 2014 with implementation of tortoise conservation measures in the Northern and Eastern Colorado Desert (NECO), Northern and Eastern Mojave Desert (NEMO), and Western Mojave Desert (WEMO) Plans.
- Eight of 10 populations of the Mojave desert tortoise in California are below the population viability threshold. These eight populations represent 87.45 percent of the habitat in California that is in CHU/TCAs.
- The two viable populations of the Mojave desert tortoise in California are declining. If their rates of decline from 2004 to 2014 continue, these two populations will no longer be viable by about 2030.

*Change in Status for the Mojave Desert Tortoise on BLM Land in California*

- Eight of eight populations of Mojave desert tortoise on lands managed by the BLM in California declined from 2004 to 2014.
- Seven of eight populations of Mojave desert tortoise on lands managed by the BLM in California are no longer viable.

*Change in Status for Mojave Desert Tortoise Populations in California that Are Moving toward Meeting Recovery Criteria*

- The only population of Mojave desert tortoise in California that is not declining is on land managed by the National Park Service, which has increased 178 percent in 10 years.

Important points to note from the data from 2015 to 2021 in Table 3 are:

*Change in Status for the Mojave Desert Tortoise in the Western Mojave Recovery Unit:*

- Density of tortoises continues to decline in the Western Mojave Recovery Unit
- Density of tortoises continues to fall below the density needed for population viability from 2015 to 2021

*Change in Status for the Mojave Desert Tortoise in the Colorado Desert Recovery Unit:*

- The population that had the highest density in this recovery unit had a continuous reduction in density since 2018 and fell substantially to the minimum density needed for population viability in 2021.

*Change in Status for the Mojave Desert Tortoise in the Northeastern Mojave Recovery Unit:*

- Two of the three population with densities greater than needed for population viability declined to level below the minimum viability threshold.
- The most recent data from three of the four populations in this recovery unit have densities below the minimum density needed for population viability.
- The population that had the highest density in this recovery unit declined since 2014.

*Change in Status for the Mojave Desert Tortoise in the Eastern Mojave Recovery Unit:*

- Both populations in this recovery unit have densities below the minimum density needed for population viability.

*Change in Status for the Mojave Desert Tortoise in the Upper Virgin River Recovery Unit:*

- The one population in this recovery unit is small and appears to have stable densities.

The Endangered Mojave Desert Tortoise: The Council believes that the Mojave desert tortoise meets the definition of an endangered species. In the FESA, Congress defined an “endangered species” as “any species which is in danger of extinction throughout all or a significant portion of its range...” In the California Endangered Species Act (CESA), the California legislature defined an “endangered species” as a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant, which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes (California Fish and Game Code § 2062). Because most of the populations of the Mojave desert tortoise were non-viable in 2014, most are declining, and the threats to the Mojave desert tortoise are numerous and have not been substantially reduced throughout the species’ range, the Council believes the Mojave desert tortoise should be designated as an endangered species by the USFWS and California Fish and Game Commission. Despite claims by USFWS (Averill-Murray and Field 2023) that a large number of individuals of a listed species and an increasing population trend in part of the range of the species prohibits it from meeting the definitions of endangered, we are reminded that the tenants of conservation biology include numerous factors when determining population viability. The number of individual present is one of a myriad of factors (e.g., species distribution and density, survival strategy, sex ratio, recruitment, genetics, threats including climate change, etc.) used to determine population viability. In addition, a review of all the available data does not show an increasing population trend (please see Tables 1 and 3).

### **Literature Cited in Demographic Status and Trend of the Mojave Desert Tortoise Including the Western Mojave Recovery Unit**

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