



DESERT TORTOISE COUNCIL

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Via email only

Date: 26 August 2024

To: Erica Stewart
BLM Yuma Field Office
Attn: Elisabeth Solar EA
7341 East 30th St.
Yuma, Arizona 85365
BLM_AZ_CRD_Solar@blm.gov

Re: Elisabeth Solar Project (DOI-BLM-AZ-C020-2023-0015-EA)

Dear Ms. Stewart,

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.”

The Council submitted scoping comments on this project on 10/30/2023, which are incorporated by reference, and provided below in the footnote¹. As an Affected Interest, we appreciate that the Bureau of Land Management (BLM) provided written notice of the availability of the draft environmental assessment (Draft EA), which was received U.S. Postal Service on 8/2/2024. Unless otherwise noted, the following page numbers refer to the Draft EA, dated July 2024.

¹ <https://www.dropbox.com/scl/fi/novfrplnonnuzigpju1m/Elisabeth-Solar-Project-EA-Scoping-Comments.10-30-2023.pdf?rlkey=o6z69kjffdfets0gu9ihktp1s&dl=0>

On page 3-20, we read that “The Sonoran desert tortoise has not been observed on the project site or documented within 5 miles of the analysis area; however, the analysis area is within the known range of the species.” We note in the consultant’s biological technical report (page 39 in the reference section of WestLand Engineering and Environmental Services 2024) that they referenced the Arizona Game and Fish Department’s (AZGFD) 2010 Heritage Data Management System (HDMS) for *Gopherus agassizii* tortoise occurrences, although *Gopherus morafkai* is the species that would occur in this area. Given that this document is 14 years old, it would not document other recent tortoise surveys, which presumably included the existing solar development located east of the proposed development (see Figure 2-1 on page 2-3 of the Draft EA). We believe the Final EA should report the findings of all tortoise surveys within the five-mile radius to supplement the dated information included in AZGFD’s dated 2010 HDMS document.

The following statement is then made on page 3-22, “In addition, no individual tortoise, signs of the tortoise, or potential den or shelter sites were observed at the project site. While there is no record of desert tortoise occurrence in the analysis area, the project site could potentially be used as dispersal habitat (WestLand 2024a).” We then read on page 2 of the consultants biological technical report (WestLand Engineering & Environmental Service 2024) the following statements: “*No species-specific surveys were conducted* [emphasis added] as part of the habitat assessment; however, all species observations, including special-status species or their associated habitats, were recorded. The habitat assessment was conducted on May 6, 2024 from approximately 8:00 am to approximately 11:00 am. Weather during the habitat assessment was sunny, with temperatures ranging from a low of approximately 60°F to a high of approximately 79°F.”

Based on these statements, the Council concludes that no protocol-level surveys for desert tortoise (U.S. Fish and Wildlife Service 2019) or western burrowing owl (California Department of Fish and Game 2012) have been performed, although we specifically asked for such surveys on page 7 of our scoping comments letter (Desert Tortoise Council 2023) nine months before the release of the Draft EA. Whereas there are recommended measures that would require preconstruction surveys for both tortoises and burrowing owls prior to ground disturbance, which we fully support, we question the validity of the conclusions given in the Draft EA in the absence of such surveys. For example, we find it misleading for the BLM to conclude on page 3-20 of the Draft EA that “The Sonoran desert tortoise has not been observed on the project site,” when in fact there have been no surveys of the project site. Surely, a three-hour reconnaissance-level survey of a 1,411-acre site is insufficient to make such a definitive conclusion. Based on 35 years of survey experience, it would take approximately 350 hours to perform a protocol-level tortoise survey (USFWS 2019) of the subject property, which is what we recommended in scoping comments.

Additional measures given in Appendix B include the following *italicized* measures, with comments immediately following the bulleted measure in regular font:

- Page B-6, *Monitoring the potential for increase in predation of special status species (especially desert tortoise) from ravens and other species that are attracted to developed areas and opportunistically use tall structures to spot vulnerable prey.* Although the Council specifically asked that all monitoring plans be made available with the release of the Draft EA (page 12 in Desert Tortoise Council 2023), we are unable to find a predator management plan to address potential raven predation. We ask, again, that a predator management/monitoring plan that addresses ravens be included as an attachment to the Final EA.

- Page B-6, *Clearing and translocation of special status species, including the steps to implement the translocation as well as the follow-up monitoring of populations in the receptor locations, as determined in coordination with the appropriate federal and state agencies. The need for a Special Status Species Clearance and Translocation Plan shall be determined on a project-specific basis.* We believe that a translocation plan should be developed and made available with the Final EA. The implication of the above statements is that a translocation plan will be developed if the need arises. However, it would be too late to develop such a plan if a desert tortoise is encountered at the time the site is being bladed, particularly if the offsite translocation area has not been identified and/or acquired. The proponent should plan the development as if tortoises will be present, and have at least a preliminary translocation plan available (and attached to the Final EA) before ground disturbance.

- Page B-9, *Ensure the biologist inspects construction pipes, culverts, or similar structures: (a) with a diameter greater than 3 inches, (b) stored for one or more nights, (c) less than 8 inches aboveground, and (d) within desert tortoise habitat (such as outside the permanently fenced area), before the materials are moved, buried, or capped. As an alternative, cap such materials before storing outside the fenced area or placing on pipe racks. Avoid inspection or capping if the materials are stored within the permanently fenced area after completing desert tortoise clearance surveys.* Similar to the previous bulleted comment, this measure should be augmented to explain how and where such tortoises will either be displaced or translocated.

- Following four measures on page B-36,

- *To prevent direct impacts to SDT [Sonoran desert tortoise], pre-construction surveys will be conducted by a qualified biologist prior to ground disturbing activities.* We strongly recommend that the BLM require the proponent to implement the clearance survey protocol identified in U.S. Fish and Wildlife Service (USFWS 2009) for this project. Clearance survey methodology requires that impact areas be surveyed twice along transects spaced at 5-meter intervals to confirm absence of tortoises.

- *To assist in habitat connectivity, the Project security fence will be a wildlife friendly design that meets the goals of allowing wildlife to move freely through the Project Area during operation, leaving 4- to 7-inch openings or portals in the fence or the fence shall be raised 4 to 7 inches above the ground leaving a gap between the fence mesh and the ground. Additionally, access will be maintained within any remaining washes traversing the Project Area.* We recommend that this measure be augmented to require the proponent to monitor the fence to remove windblown sand and weeds that are likely to accumulate at the bottom of the fence and fill in the gap, which would impair its intended function.

- *If a live tortoise is encountered, work will stop in that area to allow the tortoise to move away from ground disturbing activities.* • *If the tortoise does not move on its own, a qualified biologist will relocate the tortoise in accordance with AZGFD guidelines.* These two measures, and likely others, should be addressed in a formal translocation plan that should be developed before ground disturbance and made available for public review with distribution of the Final EA.

Page 7 of the Biological Evaluation (WestLand Engineering & Environmental Services 2024) includes an environmental protection measure (EPM) — “access will be maintained within any remaining washes traversing the Project Area.” This verbiage implies that some washes will not remain after construction of the project.

In addition, the wording in the Hydrology Study (Westwood 2023) is unclear with respect to the statement, “The Project should be designed to minimize grading and maintain existing drainage patterns.” The Final EA should include an explanation of whether the project has been designed to minimize grading and where and how this was accomplished.

We remind BLM of the importance of washes for maintaining conductivity for wildlife species including the tortoise; providing greater plant species diversity, cover, and biomass, and thereby providing greater opportunities for forage and shelter for wildlife; and conveyance of surface water to downgradient locations to maintain the soil moisture needed to support the vegetation and wildlife that depend on this vegetation. Devitt et al. (2022) reported that “Construction of roads, transmission lines and utility scale solar photovoltaic facilities can decouple up-gradient washes from down-gradient locations.” They reported that the decoupling of the wash system at the solar site “led to a significant decline in soil moisture, canopy level NDVI values and mid-day leaf xylem water potentials. Over time especially combined with climate change, this impact may result in reduced plant reproduction, growth, and survival for plants downgradient of the decoupling sites *including plants not on the project site* [emphasis added].” This indirect impact to the habitats for special status species within the project site and downgradient should be described and analyzed in the Final EA.

In addition, Averill-Murray et al. (2021) published a paper on connectivity of Mojave desert tortoise populations and linkage habitat. Although this scientific paper is not about the Sonoran desert tortoise it is a closely-related species, and the findings are likely relevant to the Sonoran desert tortoise. Averill-Murray et al. (2021) reported “[i]gnoring 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 [Tortoise Conservation Areas] must be wide enough 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 “[t]o 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 cautioned 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.

This research indicates that prohibiting development in washes but allowing development immediately adjacent to washes may not result in the washes providing functioning connectivity habitat for many species of wildlife including the tortoise. BLM should not assume this measure of avoiding development in washes is adequate to provide the intended purpose of connectivity habitat. We strongly recommend that BLM support its conclusions in the Final EA regarding the effectiveness of connectivity areas with the results from the scientific literature. This scientific support of conclusions would comply with BLM's (2015) policy of Advancing Science in the BLM: An Implementation Strategy; IB 2015-040.

We appreciate this opportunity to provide the above comments and trust they will help protect tortoises during any resulting authorized activities. Herein, we reiterate that the Council wants to be identified as an Affected Interest for this and all other projects funded, authorized, or carried out by the BLM that may affect desert tortoises, and that any subsequent environmental documentation for this project is provided to us at the contact information listed above. Additionally, we ask that you notify the Desert Tortoise Council at eac@deserttortoise.org of any proposed projects that BLM may authorize, fund, or carry out in the range of any species of desert tortoise in the southwestern United States (i.e., *Gopherus agassizii*, *G. morafkai*, *G. berlandieri*, *G. flavomarginatus*) so we may comment on them to ensure BLM fully considers actions to conserve these tortoises as part of its directive to conserve biodiversity on public lands managed by BLM.

Please respond in an email that you have received this comment letter so we can be sure our concerns have been registered with the appropriate personnel and office for this Project.

Respectfully,



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

cc. Heather Whitlaw, Field Supervisor, Arizona Ecological Services Field Office (Phoenix), U.S. Fish and Wildlife Service, heather_whitlaw@fws.gov
Raymond Suazo, Arizona State Director, Bureau of Land Management, rsuazo@blm.gov

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