



DESERT TORTOISE COUNCIL

4654 East Avenue S #257B
Palmdale, California 93552

www.deserttortoise.org
eac@deserttortoise.org

Via email only

1 May 2020

Mr. Herman Pinales
Bureau of Land Management, Southern Nevada District
Yellow Pine Solar Project
4701 North Torrey Pines Drive
Las Vegas, Nevada 89130
blm_nv_sndoyellowpine@blm.gov

RE: Yellow Pine Solar Project (DOI-BLM-NV-S010-2017-0110-EIS)

Dear Mr. Pinales,

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.

We appreciate this opportunity to provide comments on the above-referenced project. Given the location of the proposed project in habitats likely occupied by Agassiz's desert tortoise (*Gopherus agassizii*) (synonymous with "Mojave desert tortoise"), our comments pertain to enhancing protection of this species during activities authorized by the Bureau of Land Management (BLM). Importantly, the Council previously submitted a scoping comment letter, dated 8/30/2018, which is herein incorporated by reference (Desert Tortoise Council 2018). As will become evident in the following comments, there is little indication that BLM or the project proponent considered the Council's scoping comments and request of analyses that should have been in the Draft Environmental Impact Statement (DEIS).

Please accept, carefully review, and include in the relevant project file our previous (Desert Tortoise Council 2018) and current comments on the Yellow Pine Solar Project DEIS. All referenced page numbers are from the DEIS unless otherwise stated.

1. Failure to adequately address alternatives to the Proposed Action

As with the recently BLM-approved Gemini Solar Project, the primary manager of public lands in the desert continues to entertain and authorize projects where there is no true alternative, in terms of proposed site size and location. Although it may appear to an uninformed reader that a consolidated development footprint [Modified Layout Alternative (Alternative Action 1)] and a segregated development footprint (Proposed Action) are two different alternatives, they truly are not, as both would occur at the same location.

Table ES-2 on page ES-5 documents that there is a 12.5-acre difference in the amount of desert tortoise habitats permanently lost to these two “alternatives,” which are not therefore true alternatives. We believe this homogeneity among the alternatives is reflected in Table ES-2, where 22 of 28 comparisons (79%) among the three “alternatives” would have the same effect; and that the remaining 21% of the comparisons are different due to mowing versus not mowing the vegetation. Table 2.8-2 further reveals in comparison after comparison that there are no or only minor differences between the three action alternatives.

Consequently, the proponent has failed to select a site where habitats are largely degraded and unsuitable for tortoises, or a range of alternative sites either lacking tortoises or supporting few individuals. That as many as 46 different special status species may occur onsite (see page 3-21) is evidence that the proponent has chosen habitats that are not at all impaired and should not be developed. We believe that the proponent has failed to analyze alternatives that included brownfields, degraded habitats, and private lands. This is apparently a typical case where the site was preselected without the benefit of environmental analysis being a part of the site selection process.

Although the tortoise studies reveal significant impacts potentially affecting as many as 465 tortoises and 46 other special status species, the proponent is not willing to alter the size and location of the development footprint to minimize impacts (we acknowledge that areas south of Tecopa Road were previously eliminated). We specifically asked on page 3 of our scoping letter (Desert Tortoise Council 2018) that alternative sites of degraded desert habitats be identified and assessed for the project. In the absence of such an analysis (including alternatives considered and eliminated in Table 2.7-1) we find the approach to developing this site to be inconsistent with National Environmental Policy Act (NEPA) guidelines.

The Final EIS should explain why in Table 3.5-2, where 62 adult, 322 subadult, and 81 hatchling tortoises (465 total) are estimated within the project area, that on page 3-30 “...approximately 53 adult desert tortoises, 276 subadults or juveniles, and 69 hatchlings [398 total tortoises] are anticipated to be displaced by project-related construction activities via translocation.” This last number, totaling 398 tortoises, is consistent with the findings of SWCA Environmental Consultants (2020). Is this an unintended discrepancy, or is the project only likely to affect 86% of the tortoises present?

Rooftop solar as an alternative approach supplanting the need for this project in pristine habitats has not been analyzed. Several thousand acres of land are being developed in the Las Vegas Valley for new housing and thousands of acres of existing buildings may be fitted with rooftop

solar. The amount of space located on the rooftops and over parking lots provides a more efficient alternative for solar panels, and eliminates the need for costly transmission lines. We feel this clearly justifies the No Action Alternative for the Yellow Pine Solar Project. We specifically asked on page 2 of our scoping letter (Desert Tortoise Council 2018) that rooftop solar be analyzed in the DEIS, and find the absence of such an analysis (including alternatives considered and eliminated in Table 2.7-1) to render the DEIS deficient. In fact, a search for the word “rooftop” reveals that it does not even appear in the DEIS.

We are also concerned with the proponents apparent disregard for the regional planning effort in the Programmatic EIS for Solar Energy Development (herein “Solar PEIS”) that was intended to focus solar development in specific areas to avoid these types of unplanned-for impacts (BLM and DOE 2012). Eighteen Solar Energy Zones (SEZ) were designated on BLM lands in six southwestern states in 2012. The Zones were created to locate energy projects in areas that have lesser conflicts than the Yellow Pine Solar site would have. Although the original proposal for the Sandy Valley solar project dated in 2011 predated the 2012 Solar PEIS, the 2016 amended project did not (see page ES-13). We question the proponent’s assertion that the amended project, which occurred after the record of decision in 2012, is exempt from revised requirements (see page 1-6).

Page 1-2 of the DEIS states, “The BLM may include any terms, conditions, and stipulations it determines to be in the public interest and may include modifying the proposed use or *changing the location of the proposed facilities* [43 CFR 2805.10(a)(1) *emphasis added*]. In keeping with this right and its obligation to the public and Federal Land Management Policy Act (FLMPA), we ask that the BLM deny the development at this location and direct the proponent to develop the project within one of the 18 SEZs.

2. Uncertainty regarding protective measures for tortoises

As written, the second paragraph on page 2-6 states, “Prior to the start of construction activities, temporary desert tortoise fencing would be installed with a 20-foot buffer around the project site,” followed immediately in the third paragraph with the following: “Following fence installation, construction activities would begin with the preparation of the solar array, roads, and other site facilities. The site vegetation would be cleared to a height of no more than 3 inches using a bush hog, or similar tractor-mounted brush cutter.”

Surely, there are to be clearance surveys after fencing and before brushing to remove tortoises from the enclosed area? However, as written this is not stated in the sequence of development. In fact, the words “clearance survey” appear three times in the DEIS, all relative to the Migratory Bird Treaty Act, and never relative to tortoises. The Final EIS must describe how clearance surveys will be performed for tortoises, and a more detailed explanation of tortoise translocation, than just to say tortoises will be placed in the Stump Springs Translocation Area. Although there is a reference in Volume II of the DEIS for a SWCA tortoise translocation plan, it is never described, and therefore not analyzed, in the DEIS.

Rather the DEIS states “the Stump Springs Desert Tortoise Translocation Area is a proposed tortoise release area as described in the Draft Tortoise Translocation Plan (Great Basin Institute 2014).” The absence of this and other mitigation plans means the public and the decision maker are unable to review them to determine their adequacy for mitigating direct, indirect, and cumulative impacts; and for monitoring their effectiveness and implementing adaptive management regarding the Mojave desert tortoise and its habitat. In addition, if these plans are not available, it is not possible for BLM to analyze the impacts with implementation of the mitigation plans, to determine the environmental consequences of the action alternatives to the Mojave desert tortoise with the proposed mitigation. As a minimum a tortoise translocation plan should include a permanent conservation easement or other means of protections so the mitigation site receiving tortoise does not become a project development site in the future.

BLM has and, in the future, can change its management of an area by preparing a revised Resource Management Plan. Other issues such as (1) regular enforcement of unauthorized uses (e.g., OHV use, mining, grazing, dumping, developments, etc.); (2) species and habitat management to retain/improve the functions and values of biotic and abiotic components of the native desert environment (e.g., control/removal of invasive plant species, management of soil crusts, habitat restoration within the Translocation Area at locations with degraded/destroyed habitats, achieving and maintaining a predator/prey balance, etc.); (3) monitoring the effectiveness of enforcement and management; and (4) implementing adaptive management to correct ineffective or partially effective enforcement and management should be included in the Translocation Plan and EIS. These deficiencies need to be rectified in the Final EIS; i.e., tortoise translocation needs to be explained for the resulting environmental consequences to be understood.

It is important that tortoise clearance surveys be performed throughout fenced areas, which according to U.S. Fish and Wildlife Service (USFWS) survey protocols, entails two consecutive surveys at 5-meter intervals to remove all tortoises from harm’s way (USFWS 2009). Additionally, USFWS (2009) stipulates: “Clearance surveys should be conducted when desert tortoises are most active (April through May or September through October). If desert tortoises are found during the second pass, the USFWS and appropriate State wildlife agency may require a third survey.”

3. Failure to fully analyze the impacts associated with the mowing alternative

On page 2 of the Council’s (2018) scoping comments, we asked that “The Draft EIS should consider the monitoring results of recently developed solar projects where soils have been bladed versus those facilities where the vegetation has been mowed or crushed and allowed to revegetate the area.” Aside from the following statement, “Mowing is becoming the standard on large site-type ROWs to prevent permanent impairment of public lands (as mandated by FLPMA) and in lieu of off-site mitigation,” there is no indication, whatsoever, of the efficacy of mowing to reach its intended goal, which is ostensibly to facilitate vegetation recovery but NOT to allow repatriation of the site by tortoises and other wildlife, as was envisioned for the proposed Gemini solar project. The Final EIS must address this deficiency.

Had the above analyses been completed, statements like the following may have been supported or refuted by previous studies (see page 3-17): “Because the mowing technique would allow for retention of the existing biocrust and seed bank [this result is doubtful due to the use of heavy equipment to mow vegetation], it is anticipated that areas where it would be used (approximately 65% to 90% of the project area) would likely recover at a more rapid pace than the portions of the project area that would be completely graded (approximately 10% to 35% of the project area) during construction.” What is the basis for this statement? Which references to previous projects support such statements?

4. Inadequate environmental consequences analysis

Our understanding of the proponent’s responsibility to provide an adequate environmental consequences analysis is that an uninformed reader will understand based on the information presented what the current status and trends are for each component being analyzed, including the desert tortoise. In our estimation the two paragraphs and one table given in Section 3.5.3.2, which briefly describe tortoise occurrence on the subject property, does not provide the regional context for the plight of the desert tortoise.

In spite of three pages of data given on pages 8, 9, and 10 of our previous comment letter (Desert Tortoise Council 2018), there is no analysis, whatsoever, in the DEIS of tortoise population trends and declines. For BLM to accurately analyze the impacts of the solar project on the desert tortoise, it must include recent information on its status. Allison and McLuckie (2018) reported that estimated subadult and adult tortoise densities in the Eastern Mojave Recovery Unit are 3.0 per square mile (1.9 per square kilometer). The minimum viable density for the Mojave desert tortoise as determined using environmental data from the early 1990s was 10 adult tortoises per square mile (3.9 adult tortoises per square kilometer) (USFWS 1994). Populations of Mojave desert tortoises with densities below this amount are in danger of extinction because they are not viable. From 2004 to 2014, desert tortoise densities in the Eastern Mojave Recovery Unit, which includes the location of the proposed Yellow Pine Solar project, declined 67 percent (Allison and McLuckie 2018).

We request now, as before in 2018, that BLM update its information on the status of the tortoise in the Final EIS and include information on the minimum viable population density for the tortoise and declining tortoise densities and numbers in this recovery unit and the nearby Stump Springs ACEC. We request that BLM provide information on the current condition for the tortoise in the nearest critical habitat unit, which is Ivanpah, located 30 miles south, with respect to its ability to successfully provide the physical and biological features the tortoise requires for survival and recovery. According to the Council on Environmental Quality’s (CEQ) regulations (40 CFR 1500–1508), this information is needed to provide the baseline from which BLM then analyzes the environmental consequences from implementing the solar project.

On page 5 of the Council’s (2018) scoping comments, we specifically asked the proponent and BLM to analyze impacts of roads, as follows: “Please include in the Draft EIS analyses, the five major categories of primary road effects to the tortoise and special status species: (1) wildlife mortality from collisions with vehicles; (2) hindrance/barrier to animal movements thereby reducing access to resources and mates; (3) degradation of habitat quality; (4) habitat loss caused by disturbance effects in the wider environment and from the physical occupation of land by the road; and (5) subdividing animal populations into smaller and more vulnerable fractions.” The Final EIS must address this deficiency in the DEIS.

5. Inadequate socio-economic analysis

The Socioeconomics and Environmental Justice section of the DEIS provides a limited description of the functions and values of project-related economic expenditures and job creation, population, and housing impacts, effects on tourism and recreation economies, and high or disproportionate effects on minority and/or low-income communities.

We were unable to find an accounting of the benefits that would be lost from the implementation of the action alternatives and the cost that would be passed on to the local community and American public to “mitigate” these losses. The benefits (Kobaly 2019) that are currently provided and that would be lost from construction of Yellow Pine Solar include: (1) protection of air quality (cost = greater air pollution from particulate matter); (2) improved infiltration of precipitation adding to groundwater (cost = soil erosion, less groundwater available); (3) carbon sequestration (cost = more carbon left in the atmosphere making climate change worse), nitrogen harvesting from the air to allow native woody plants to make food, grow, and reproduce (cost = loss of native woody shrubs elevating soil temperature, reduction of water infiltration); (4) loss of food and shelter for wildlife; (5) loss of visual resources, loss of many current recreation opportunities; etc.); and (6) loss of wildlife; etc. Currently these benefits are provided without a cost to the public.

Implementation of Yellow Pine Solar would result in new annual and long-term costs for the public to mitigate these losses or accept the losses. We request that the FEIS provide an economic analysis of these benefits and costs/losses. In addition, we request that BLM provide an economic analysis of the leasing costs of its lands for the Yellow Pine Solar annually and total for the life of the project, how these leasing costs compare to the loss of current benefits provided to the local communities and the public by the environment, and how BLM will spend the collected leasing fee monies. When this information is provide, we believe it will likely show that BLM is subsidizing development on its public lands at a large economic cost to the public as well as degradation/loss of public trust resources.

6. Inadequate cumulative effects analysis

The cumulative impacts “analysis” given on page 3-32 for tortoises and other special status species refers to the two paragraphs of cumulative impacts “analyses” given on page 3-18 for general wildlife. However, neither of these sections satisfies the criteria of the Council for Environmental Quality (CEQ), which must be addressed in the Final EIS.

CEQ defines cumulative impacts as “...the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such actions” (40 CFR 1508.7)(BLM 2008a). CEQ (1997) says, “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 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.” CEQ lists eight principles of cumulative impact analysis. These include:

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 need 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.

The Council does not believe that this project should be developed on this site because of the number of tortoises that are estimated to occur. Even so, we are attaching a set of construction Best Management Practices (BMPs) (Desert Tortoise Council 2017) and restoration BMPs (Abella and Berry 2016) both developed by the Council for the proponent's consideration and use. Although these submissions should not be construed as Council endorsement of any ground-disturbing alternatives, we feel that implementation of our BMPs would enhance tortoise protection if the project is approved.

We appreciate this opportunity to provide input and trust that our comments will help protect tortoises during any authorized project activities. On 7 November 2019, the Council sent a letter to Mr. Tim Smith, District Manager of the Southern Nevada District of the BLM (attached), therein identifying a half dozen projects the Council commented on in 2018 and 2019, in which we asked that the Council be considered an Affected Interest. Yet, once again, the BLM did not contact the Council about this DEIS, even though we also requested that status in the 2018 scoping comments letter on this particular project; rather several third parties alerted us to this project. So herein, we reiterate that the Desert Tortoise Council be identified as an Affected Interest for this and all other BLM projects in southern Nevada that may affect species of desert tortoises, and that any subsequent environmental documentation for this particular project is provided to us at the contact information listed above.

Regards,



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

Literature Cited

- Allison, L.J. and A.M. McLuckie. 2018. Population trends in Mojave desert tortoises (*Gopherus agassizii*). *Herpetological Conservation and Biology* 13(2):433–452.
- Kobaly, R. 2019. The desert under our feet. An extraordinary biological web that serves us in countless ways. *Desert Report* March 2019.

SWCA Environmental Consultants (SWCA). 2013. Preliminary Biological Site Assessment for the Proposed Pahrump Valley Solar Energy Facility. Prepared for Pahrump Valley Solar LLC and Bureau of Land Management. Project No. 24956. Las Vegas, Nevada: SWCA Environmental Consultants. September.

U.S. Bureau of Land Management and U.S. Department of Energy. 2012. Final Programmatic Environmental Impact Statement for Solar Energy Development in Six Southwestern States. FES 12-24, DOE/EIS-0403. Washington, D.C.: U.S. Bureau of Land Management and U.S. Department of Energy. Available at: <http://solareis.anl.gov/documents/fpeis>.

U.S. Fish and Wildlife Service. 1994. 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.

U.S. Fish and Wildlife Service. 2009. Desert Tortoise (Mojave Population) Field Manual: (*Gopherus agassizii*). Region 8, Sacramento, California.

Attachments

Abella S.R. and K.H. Berry. 2016. Enhancing and restoring habitat for the desert tortoise (*Gopherus agassizii*). Journal of Fish and Wildlife Management 7(1):xx-xx; e1944-687X. doi: 10.3996/052015-JFWM-046.

Desert Tortoise Council. 2017. Construction Best Management Practices: Desert tortoise protection. An unpublished report completed by the Desert Tortoise Council on 21 August 2017. Palmdale, CA.

Desert Tortoise Council. 2018. Comment Letter on the Bureau of Land Management's Notice of Intent to Prepare an Environmental Impact Statement and a Notice of Segregation for the Proposed Yellow Pine Solar Project, Clark County, NV. Palmdale, CA.

Desert Tortoise Council. 2019. Reiteration of the Desert Tortoise Council's Previous Requests as An Affected Interest for Notification of Bureau of Land Management Proposed Actions Affecting the Desert Tortoises or Habitats. Letter submitted to Tim Smith, District Manager, Southern Nevada District, Bureau of Land Management on 7 November 2019. Palmdale, CA.