

## DESERT TORTOISE COUNCIL

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**Via email only**

16 August 2019

Bureau of Land Management  
Las Vegas Field Office  
4701 North Torrey Pines Drive  
Las Vegas, NV 89130-2301  
Attn: Herman Pinales

Via email: [blm\\_nv\\_sndo\\_geminisolar@blm.gov](mailto:blm_nv_sndo_geminisolar@blm.gov)

RE: Comment Letter on the Proposed Gemini Solar Project, Clark County, Nevada: Resource Management Plan Amendment and Draft Environmental Impact Statement

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 occupied by significant densities of Agassiz's desert tortoise (*Gopherus agassizii*) (synonymous with "Mojave desert tortoise"), we strongly oppose development of this site, and ask that Bureau of Land Management (BLM) not issue a right-of-way (ROW) grant or amend the Las Vegas Resource Management Plan (BLM 1998). The Council provided a 12-page comment letter, dated 26 August 2018, on the BLM's Notice of Intent to Prepare an Environmental Impact Statement and Land Use Plan Amendment, and a Notice of Segregation, both for the Proposed Gemini Solar Project in Clark County, Nevada (herein DTC 2018, which is available upon request) in which we requested "Affected Interest" status. A Council Board member also attended the project open house meeting in Las Vegas, Nevada on 23 July 2019.

As per the Abstract in the Draft Environmental Impact Statement (DEIS), the Proposed Action and the alternatives identify development on approximately 7,100 acres of land within the 44,000-acre right-of-way application area. The Proposed Action would involve solar development utilizing traditional development methods, which include disk and roll to remove vegetation in the solar array areas. The Hybrid Alternative would involve solar development utilizing traditional development methods in solar array areas (on approximately 2,500 acres) and mowing that leaves vegetation and natural land contours in place on the remaining solar array areas (on approximately 4,600 acres). The All Mowing Alternative would involve development of the facility utilizing only mowing in solar array areas. Where mowing is utilized under each alternative, desert tortoises would be reintroduced into the remaining habitat in the solar array areas after the completion of construction.

The Council strongly encourages the BLM to adopt the No Action Alternative for the following reasons:

(1) The purpose of protocol tortoise surveys is to determine distribution and densities of tortoises, then use that information to design projects that minimize or avoid as many impacts as possible, and sometimes to abandon the project based on the findings (e.g., abandonment of the proposed Calico Solar Project in San Bernardino County several years ago, in part, because of tortoise densities). Based on protocol surveys performed for the proposed Gemini Solar Project (Phoenix Biological Consulting 2018a, 2018b), the DEIS (page 3-82) estimates that 215 adult tortoises and more than 900 juvenile tortoises may be displaced from the 7,100± acres, which the Council finds objectionable. To put this in perspective, in 2017 the U.S. Marine Corps translocated 1,100 tortoises from approximately 45,000 acres (MCAGCC 2017). That the same number of tortoises would be displaced by the Gemini project from a fraction of the area (6.2%) is unacceptable.

(2) In order to comply with Section 7 of the Federal Endangered Species Act (FESA), BLM is required to minimize project effects and not approve actions that would compromise recovery of the species. If the No Action Alternative is not adopted, BLM must require the proponent to locate the project only where tortoise abundance is low and in areas that will retain regional connectivity. Large-scale habitat loss in a conservation area (connectivity corridor; see point 5 below) should not be authorized. U.S. Fish and Wildlife Service (USFWS) and BLM both know these areas require protection to achieve recovery

(3) The proponent has failed to select a site where habitats are largely degraded and unsuitable for tortoises. We believe the proponent has failed to consider a range of alternative sites either lacking tortoises or supporting few individuals. The proponent does not justify or demonstrate the need to provide 690 megawatts of alternating current in the first place, then claims that brownfields are too small and private lands too expensive. We believe, rather, that the proponent should have analyzed an alternative that reduces the energy output so that brownfields and/or private lands could have been economically feasible. This is typical case where the site was preselected without the benefit of environmental analysis being a part of the site selection process. Although the studies reveal significant impacts, the proponent is not willing to alter the size and location of the development footprint to minimize impacts.

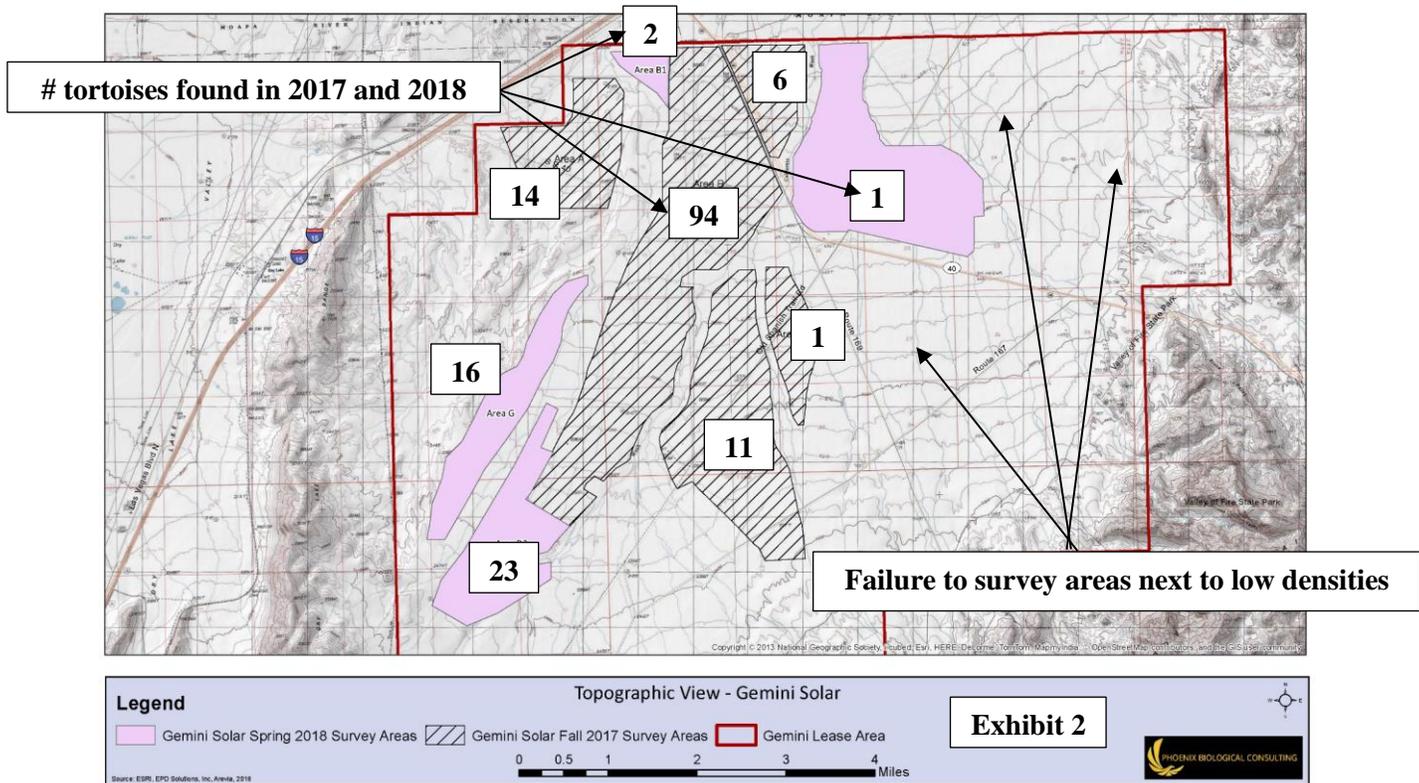
(4) The proponent has not analyzed a range of alternatives that include variable site locations even within the 44,000-acre ROW application area. Rather, the same acreage (i.e., 7,097 acres) would be impacted by different approaches with varying levels of impacts (i.e., mowing versus grubbing). The proponent identifies a 44,000-acre study area, surveyed 7,481 acres in 2017 (Phoenix Biological Consulting 2018a) and 3,722 acres in 2018 (Phoenix Biological Consulting 2018b), with no apparent overlap, so only 11,200 of the 44,000 acres have been surveyed. The Proponent has subsequently chosen to develop a 7,100-acre± portion of that area with no regard for tortoise densities revealed by their funded studies. Importantly, there are approximately 32,800 acres of lands to the east and south of the 11,200 acres surveyed in 2017 and 2018 that may support significantly fewer tortoises than the chosen impact area. We find it telling that none of the 3,722 acres surveyed in 2018 were selected for project development, even though one of those areas, the 1,832-acre Area F, had only one tortoise. It's as if the 2018 surveys were a formality as only the 2017 survey areas have been identified for project development.

One can see in Table 5 of Phoenix Biological Consulting (2018b) that only one tortoise was found on 1,832 acres comprising Area F, which is the easternmost of the eight areas surveyed to date (Exhibits 2 and 5 *ibid*). Similarly, only one tortoise was found on 402 acres comprising Area E surveyed in 2017 (Phoenix Biological Consulting 2018a). The pertinent conclusion is stated on page 3-80 of the DEIS: “The lowest-density desert tortoise areas were found in development area F—where no tortoises with a larger than 180 millimeter (mm) mean carapace length (MCL) were identified, likely due to the presence of sandy soils— followed by E and D, which is generally the east side of the Project site.”

Since these are the two easternmost polygons surveyed and have the lowest numbers of tortoises (i.e., 2 tortoises on 2,234 acres), if the proponent truly wanted to select habitats supporting fewer tortoises and thereby minimize impacts (as alluded to on page 1-2 of the DEIS), it should have surveyed additional areas to the east and south of these lower-density tortoise areas within the 44,000-acre study area (see map on next page; only cross-hatched areas, corresponding to 2017 survey areas, would be developed among all alternatives). Nor would they have excluded Area F, with only one tortoise, from the Proposed Action (and all other alternatives, since the size of the proposed solar field is the same among all alternatives).

Based on this information and the absence of sufficient data, we strongly recommend that if the BLM does not adopt the No Action Alternative, that they require the proponent to survey as much area as possible east of Route 169 (also “Bitter Springs Road” in Figure 6-1 of the Plan of Development) to see if lower densities of tortoises occur there. Otherwise, the proponent has not used the results of the 2017 and 2018 surveys to avoid sensitive resources, including tortoise concentrations, which is stated as a goal of the proposed development at the top of page 1-2 of the DEIS.

Nor has the proponent analyzed an alternative where roof-top solar would be constructed to achieve Nevada’s goal of 50% renewable energy by 2030 (page ES-1), which is an alternative that the Council specifically requested to be analyzed in our scoping comments (DTC 2018, page 2). An alternative that considers roof-top solar is not even listed in Table 2.5-1, which includes alternatives considered but eliminated from detailed analysis.



(5) In spite of the significant programmatic regional planning effort for solar energy development in Nevada and five other states in the Programmatic Solar Energy Development Plan for Six Southwestern States (PEIS; DOE and BLM 2012), the proponent has refused to conform to that plan by locating proposed development outside any of the designated Solar Energy Zones (SEZ). A search of volume one of the DEIS for the term, “SEZ,” reveals that it appears twice: once on page 3-85 in reference to nearby development and on page 3-132 with reference to tribal interviews. Otherwise, the proponent does not explain why the “world’s largest” proposed solar field is not being developed within a designated SEZ, which is a significant deficiency in the DEIS to fully analyze environmental impacts.

An even more significant impact, the proponent has selected sites identified in the PEIS that are to be managed as regional Priority 1 and 2 linkage corridors for tortoises. Large-scale habitat loss in this conservation, connectivity corridor should not be authorized. USFWS and BLM know these areas require protection to achieve recovery.

We understand that the BrightSource Energy, LLC ROW application was filed in 2008, prior to completion of the Solar PEIS in 2012, and the DEIS does not reveal when the proponent acquired the rights. But we assume the rights were acquired with full knowledge that development of this site would not conform or comply with the accepted programmatic approach to energy development in Nevada. In our estimation, the proponent should have performed tortoise studies before acquiring the ROW application or as an initial part of site assessment, and their intent to develop it in spite of serious and significant environmental impacts and the potential loss of 1,100 is unacceptable and inconsistent with the Federal Land Policy and Management Act (FLPMA).

(6) Contrary to the following statement, “There are no known areas large enough to accept the desert tortoises that meet the USFWS desert tortoise translocation guidance definition of ‘depleted population,’” (i.e., 10.1 tortoises per square mile as per the footnote on page 3-86) in the past several years, the USFWS has displaced hundreds, if not thousands, of tortoises out of the Desert Tortoise Conservation Center in Las Vegas throughout southern Nevada in the name of “population augmentation” (see DTC 2012, available upon request). Based on this observation, it is not apparent that the proponent has discussed this issue with pertinent USFWS personnel. We do not support the distant translocation of so many tortoises (estimates of 215 adults and 900 or more juveniles), but also question the alternatives that would result in mowing half or all of the site and reintroducing juvenile tortoises into the job site where they would be subject to crushing and mutilation during operations and maintenance (see point 10 below).

Also, the proponent’s own studies show that only two tortoises were found in Area E, which is comprised of 402 acres and Area F, which is comprised of 1,832 acres. So, the proponent’s focused tortoise surveys in the two eastern-most survey areas found 2 tortoises on 2,232 acres, which is 3.4 square miles, which equates to 0.6 tortoises/square mile. So, in spite of stating there are no nearby depletion areas of fewer than 10 tortoises per square mile, they fail to recognize that even their own studies have identified depletion areas within the 44,000-acre study area. As given in point 4 above, this is another compelling reason for the proponent’s need to expand surveys into eastern portions of the 44,000 acres, on approximately 32,000 acres that have not been surveyed. We believe that these observations not only refute the proponent’s claim that there are no available areas of depleted tortoise populations, they suggest that the proponent has not sufficiently analyzed tortoise occurrence within the action area, which we construe to be the entire 44,000 acres.

(7) The observations given above lead to another serious concern with the proponent’s lack of a full impacts analysis. We note in Table 2 on page 35 of Phoenix Biological Consulting (2018b) that the action area and the survey areas are exactly the same. Whereas the survey area is reported to be 11,200 acres, we were led to believe in the BLM’s Notice of Intent (BLM 2018) that the action area is the 44,000-acre application area. It is not apparent that the proponent discussed the appropriate size of the action area with the USFWS. An action area is defined by regulation as “...all areas to be affected directly or indirectly by proposed development and not merely the immediate area involved in the action (50 CFR §402.02).”

For compelling reasons identified above in points 4 and 6, the Council feels strongly that the proponent has neglected to implement this regulation, thereby failing to reveal (a) there may be depleted tortoise populations within the unsurveyed 32,000 acres within the proponent’s 44,000-acre ROW application area (as are already documented in Areas E and F) where the losses of an estimated 1,100+ tortoises may be avoided; and (b) if tortoise densities to the east are as low as they are in Areas E and F, it may be better to translocate displaced tortoises to the east, rather than to the south, as currently proposed (see page 3-87). This assumes that there are suitable tortoise habitats to the east and, if not, then development to the east would be the most prudent location for the facilities.

In the absence of these surveys and analyses, the proponent has not adequately analyzed potential impacts of the various alternatives or the potential to develop areas of lower tortoise densities in what should be the action area. We are concerned that the proponent has not used the results of its own surveys to minimize impacts. The proponent has not demonstrated any willingness to avoid areas of higher tortoise densities in Area B. In fact, it is counterintuitive that the proponent, having found only one tortoise in the 1,832-acre Area F, has excluded that area from the Project Development Area shown in Figure 6-1 of the Plan of Development.

We contend that the proponent has not exercised due diligence within the 44,000-acre action area and that the BLM must adopt the No Action Alternative until which time the proponent has completed the necessary surveys and subsequent analyses.

(8) The Council has serious concerns with the proponent's lack of analysis for the efficacy of mowing and subsequent tortoise repatriation into mowed areas. The DEIS fails to reveal if mowing has been implemented elsewhere and if so, what monitoring studies have revealed. We understand that mowing was used for an 80-acre± solar site in Pahrump, Nevada (Stantec 2015) but that it has not been monitored properly and the vegetation was mowed to near ground level. We do think that mowing may be a viable *experimental* approach for several hundred acres that would displace a dozen tortoises, for example. But the displacement of more than 1,100 tortoises from a 7,100-acre± site (or an unidentified number of tortoises under the hybrid alternative, see point 11 below) in the absence of analyses of any previous studies is unacceptable.

Because mowing and repatriation remains experimental, the Council recommends the following if the No Action Alternative is not adopted: (a) alternatives should be developed by biologists in case the implemented methodologies are unsuccessful; (b) USFWS should require adequate monitoring and approve alternatives; and (c) mowing must be carefully monitored by BLM to ensure it is performed properly.

(9) A related concern is how the proponent intends to avoid crushing juvenile tortoises during operations and maintenance, and the foreseeable vulnerability of these small tortoises to predators, particularly common ravens and coyotes, when (if) small tortoises repatriate the mowed vegetation areas. According to page 6-1 of the Plan of Development, the vegetation would be mowed to a height of 24 inches, which may not be sufficient cover to conceal juvenile tortoises. Juvenile tortoises are notoriously difficult to see, and are likely to be at more risk than adult tortoises to crushing by project personnel after project development. These are foreseeable impacts that are not covered under either indirect effects (3-87) or residual effects (3-88) in the DEIS.

(10) The Council contends that the fatal flaw to any alternative involving mowing is that vegetation is to be mowed every three years to a height of nine inches (this method is revealed in Table 4-1 of the Plan of Development, although we could not find a detailed description of this maintenance method in the text). Whereas we are not sure if 24 inches will conceal juvenile tortoises, we are certain that nine inches will not conceal them. Mowing areas that are repatriated by juvenile tortoises will predictably result in crushing and mutilating subadult tortoises that cannot be found by traditional survey methods.

(11) We also note that, whereas the impacts associated with the Proposed Action on page 3-82 reveal that an "...estimated 900 or more juveniles..." may be affected, from there on, the impacts associated with the "All Mowing Alternative" (pages 3-85 through 3-88) and the "Hybrid Alternative" (pages 3-88 through 3-90) are limited to impacts to adult tortoises, with no mention, whatsoever, of juvenile tortoises. We are not sure if this is an oversight or failure to disclose the full impacts of these two alternatives, but in any case, the DEIS is deficient in this matter, which must be resolved in the Final EIS.

(12) 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 understand that the BLM in its ROW permit and plan amendment and the USFWS in its biological opinion could still authorize this project. Given that possibility, 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 alternative, 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 be taken seriously. Although the Council has expressed reservations about necessary studies that have not been performed, we are convinced that the studies that have been performed reveal unacceptable impacts to an imperiled threatened species that warrants endangered status.

Regards,



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

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