January 3, 2011

Steven McMasters, Project Manager
County Planning & Building Department
976 Osos Street, Room 300
San Luis Obispo, CA 93408-2040

Delivered via email to smcmasters@co.slo.ca.us
Hard copy to follow via USPS

RE: Topaz Solar Farm (First Solar) Conditional Use Permit (DRC2008-00009; State Clearinghouse No. 2008091026) Draft Environmental Impact Report

Dear Mr. McMasters:

Thank you for the opportunity to comment on the Draft Environmental Impact Report (DEIR) for the Topaz Solar Farm Project (Project). These comments are submitted on behalf of Defenders of Wildlife (Defenders) and our more than one million members and supporters in the United States, 200,000 of which reside in California.

Defenders is dedicated to protecting all wild animals and plants in their natural communities. To that end, Defenders employs science, public education and participation, media, legislative advocacy, litigation, and proactive on-the-ground solutions in order to prevent the extinction of species, associated loss of biological diversity, and habitat alteration and destruction.

Defenders strongly supports the emission reduction goals found in the Global Warming Solutions Act of 2006 (AB 32), including the development of renewable energy in California. However, we urge that in seeking to meet our renewable energy portfolio standard in California, project proponents design their projects in the most sustainable manner possible. This is essential to ensure that project approval moves forward expeditiously and in a manner that does not sacrifice our fragile landscapes and wildlife in the rush to meet our renewable energy goals.

As we transition toward a clean energy future, it is imperative for our future and the future of our wild places and wildlife that we strike a balance between addressing the near term impact of industrial-scale solar development with the long-term impacts of climate change on our biological diversity, fish and wildlife habitat, and natural landscapes. To ensure that the proper balance is achieved, we need smart planning for renewable power that avoids and minimizes adverse impacts on wildlife and lands with known high-resource values, such as the Carrizo Plain.

California Program Office
1303 J Street, Suite 270
Sacramento, CA 95814
Telephone 916-313-5800
Fax 916-313-5812
www.defenders.org/california

The proposed Project would be a massive photovoltaic (PV) solar power plant with a 550 megawatt generating capacity. The Project would be located on roughly 4,000 to 4,100 acres in the Carrizo Plain, an unincorporated portion of eastern San Luis Obispo County (County), adjacent to Highway 58 and east of Bitterwater Road. The project would include installation of approximately nine million solar PV modules within 437 arrays and associated electrical equipment (power conversion stations – each of which includes two inverters and one transformer, equaling approximately 874 inverters and 437 transformers – and PV combining switchgear houses). The Project would also include:

- an electric substation and switching station;
- an 11,250 square feet monitoring and maintenance (M&M) facility;
- a Solar Energy Learning Center;
- medium-voltage feeder lines underground;
- approximately 8 to 12 miles of above-ground medium-voltage (34.5 kilovolt) collector lines;
- construction of approximately 14 to 22 miles of on-site access roads;
- a leach field and septic system located adjacent to the M&M facility;
- four temporary construction staging areas of approximately 10 acres each; and
- perimeter fencing consisting of six-foot-high chain link with three strands of barbed wire on top.

If built, the Project would entail significant loss of habitat and displacement of many wildlife species, including the state and federally listed San Joaquin kit fox, special-status reptiles, special-status mammals, migratory birds, and numerous rare plant species.

Defenders believes the DEIR has multiple flaws. It fails to analyze a reasonable range of alternatives, narrowly defining the project's objectives in such a way as to preclude assessment of many viable alternatives on private and public degraded land outside San Luis Obispo County. In addition, the DEIR does not adequately address the significant loss of habitat and cumulatively significant impacts of a project that would encompass more than six square miles. Therefore, Defenders cannot support and instead must oppose this project in its current configuration and with its current mitigation scheme until and unless the project's impacts are avoided or mitigated to the greatest extent practicable. To that end, we offer the following comments.

The alternatives analysis is inadequate in breadth of analysis and range of alternatives

The alternatives analysis does not contain a sufficient range of site alternatives. The California Environmental Quality Act (CEQA) requires that an environmental impact report (EIR) analyze a reasonable range of feasible alternatives that meet most or all project objectives while reducing or avoiding one or more significant environmental effects of the project (*see* CEQA Guidelines, section 15126.6(f)). As stated above, the objective of siting the Project within San Luis Obispo County precludes or limits a range of reasonable site alternatives located on disturbed private lands outside the County.

The range of alternatives required in an EIR is governed by a "rule of reason" that requires an EIR to set forth only those alternatives necessary to permit a reasoned choice (*see* CEQA Guidelines, section 15126.6(f)). Where a potential alternative was examined but not chosen as one of the range of alternatives, the CEQA Guidelines require that the EIR briefly discuss the reasons the alternative was dismissed. Defenders recommends that the County consider several more alternatives outside of the Carrizo Plain. Considering the overriding policy impetus toward siting renewable facilities on private degraded land, the permitting agencies have an obligation to fully consider a reasonable range of private land alternatives. The Renewable Energy Transmission Initiative (RETI) has prioritized siting utility-scale solar facilities on private degraded land.

As stated in the DEIR, the Westlands Competitive Renewable Energy Zone (CREZ) Alternative would be located on previously cultivated lands that were retired over the past decade because of a combination of water shortages and salt buildup that make the soil toxic to crops. A review of California Natural Diversity Database (CNDDB) records did not indicate any reported documentation of sensitive plants or wildlife within the Westlands CREZ site. *See* DEIR, at E-33. The Westlands CREZ Alternative would reduce impacts from the Proposed Project to Aesthetics, Biological Resources, and Transportation and Circulation. *See* DEIR, at E-34. The DEIR states that the Westlands CREZ Alternative is potentially feasible but a final determination of feasibility would be dependent upon transmission interconnection, site evaluation, project design and permitting.

The Westlands CREZ Alternative is feasible based on a CEQA feasibility analysis. It is capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors. *See* CEQA Guidelines, section 15364. It should be considered for adoption due to the inability to mitigate cumulative impacts to special status species and cumulative impacts to movement corridors for San Joaquin kit fox on the proposed project site.

Basic objective #1 – To construct a 550 megawatt (MW) solar energy facility by 2014 to help meet state and federal energy policies – is overly narrow (DEIR, at E-1). The County should consider alternatives that meet part of this MW goal. Creating a broader MW objective, such as "construct a solar energy facility that contributes significant MW capacity toward state and federal energy policies," would facilitate a reduced acreage alternative, and potentially help avoid or minimize impacts to San Joaquin kit fox, special status plants and animals, and increasingly rare grassland habitats. It would also facilitate the Westlands CREZ alternative, as that alternative currently only partially meets objectives.

Basic objective #2 – Support goals stated in the San Luis Obispo County General Plan Energy Element, as well as other policies in the plan designed to protect San Luis Obispo County's environment and economy – is a far too narrow objective. The overriding policy goals behind development of renewable energy in California are to reduce greenhouse gas emissions, achieve clean air goals, and meet renewable energy targets. These goals do not include supporting one particular county's general plan. Even if they did, there is minimal evidence that the proposed project will have beneficial effects on the local economy. And there is absolutely no evidence that the project will have beneficial effects on the environment – quite the contrary considering the numerous significant impacts detailed in the DEIR.

The Westlands CREZ and any other off-site alternatives would become more feasible if basic objective #2 was eliminated. Off-site alternatives are a necessary and important part of the alternatives analysis and objective #2 significantly hinders them.

Impacts to biological resources are significant and unmitigable

Habitat loss is the primary cause of San Joaquin Valley upland species endangerment (U.S. Fish & Wildlife 1998). It is essential that habitat for endangered and special status species in the project area is protected to ensure survival and recovery of the species. To ensure habitat protection, land use must maintain or enhance the value of the land. The recommended approach for safeguarding such habitat is to protect land in large blocks whenever possible. This minimizes edge effects, increases the likelihood that ecosystem functions will remain intact and facilitates management.

The California Department of Fish and Game's 2008 Wildlife Action Plan states that "[w]ith only about 5 percent of the San Joaquin valley's original natural areas remaining untilled and undeveloped, these Central Coast habitats…are important for the [San Joaquin kit fox's] survival" (at 171). Further, this plan references the U.S. Fish and Wildlife Service's Recovery Plan for the San Joaquin kit fox, and "calls for the protection of a complex of fox populations, including three core populations" (within the Carrizo Plain, western Kern County, and Ciervo-Panoche Natural Area) and "recommends ***protecting remaining connections between populations*** to counteract interbreeding or declines in any one population" (emphasis added; at 172).

We support the conclusion made in the DEIR that cumulative impacts to special status species and wildlife connectivity/corridors will be significant and unmitigable (DEIR at C.6-91-92). However, we believe the DEIR improperly concludes that mitigation measures are sufficient to reduce other biological resource impacts to less than significant.

CEQA allows a lead agency to adopt a statement of overriding considerations only if the specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable adverse environmental effects. CEQA Guidelines, section 15093. The lead agency must make this statement in the final EIR and the statement of overriding considerations must be supported by substantial evidence in the record. *Ibid.* Such a statement is simply not justified in this case.

A statement of overriding considerations is not applicable because there are no overriding economic benefits. The County likely will not realize a significant increase in jobs for residents because photovoltaic facilities do not require large work crews.

A statement of overriding considerations is not applicable because there are no overriding legal benefits. To the contrary, the Project will allow the take of species listed under the California endangered species acts, a law that sets important standards that protect our natural heritage. There are no perceivable legal benefits to permitting the Project.

A statement of overriding considerations is not applicable because there are not overriding social or technological benefits. To the contrary, the Project would upset the delicate social

balance that has been established in the Carrizo Plain, wherein farmers, ranchers, other residents and wildlife species coexist. The technological benefits are not overriding because large-scale photovoltaic technology will likely become more efficient in the next few years and require far less land to operate. Moreover, technology that supports distributed generation, rather than utility scale photovoltaic, is preferred because the energy is produced close to the user therefore reducing line loss, and the impacts to the land base are minimized.

There are simply are no legally-based overriding conditions for this Project. The disturbance, removal and destruction of more than 4,000 acres of functional habitat supporting several listed species and dozens of rare plants cannot be justified. There are no economic, legal, social or technological benefits to support the Project moving forward in its current location in the Carrizo Plain.

The permanent loss of approximately 4,000 acres of valuable wildlife habitat and its associated species is a significant impact to the environment and mitigation and avoidance measures will not compensate for this habitat loss. The proposed mitigation plan lacks much-needed details about the location and amount of land that will be acquired for conservation purposes. In fact, the DEIR states that the "habitat value of potential mitigation lands has not yet been determined, so it is difficult to determine the [sic] how much off-site preservation would offset cumulative impacts to special status species" (at C.6-91).

Specifically regarding mitigation for the San Joaquin kit fox, the DEIR asserts that the "San Joaquin Kit Fox Standard Mitigation Ratio Area Map created as part of the County's mitigation procedures indentifies a 4:1 mitigation ratio for SJKF in the eastern portion of San Luis Obispo County. These mitigation recommendations were reviewed and where appropriate were incorporated into the mitigation measures proposed for this project" (at C.6-53). This is problematic in several ways. The first is that the 4:1 mitigation ratio as called out by the County's procedures is for **projects of less than 40 acres** in size and **when no kit foxes are present on the project site**. The proposed Topaz Solar Farm is fully 100 times that project size limitation and there is ample evidence provided in the DEIR that indicates broad distribution of kit foxes throughout the Project site (e.g. Figure 4 from "Scat Detection Dog Surveys for the Endangered San Joaquin Kit Fox," Appendix 9A at 18). Further, Table 2 of the San Joaquin Kits Fox Mitigation and Monitoring Plan (DEIR, Appendix 9A, at 15) only lists mitigation ratios ranging from 0.25:1 to 3:1, even for complete habitat loss. We believe these proposed mitigation ratios are wholly inadequate and suggest a mitigation ratio of *at least* 5:1 for habitat loss, which should include most of the Project footprint. To assume that impacts from construction and fencing off of such a significant portion of known, currently utilized habitat of a core population of kit foxes could be mitigated at such a low rate is speculative and flatly wrong.

Site preparation for the project will include the installation of perimeter chain link fencing to preclude movement of large wildlife species through the facility. The DEIR states:

> "For security, the Proposed Project site would be fenced with a six-foot-high chain link fence topped with three strands of barbed wire. Perimeter fencing would have small openings (approximately 12 inches in height by four to six inches in width) at

the base of the fence approximately every 100 yards, totaling over 600 ground-level openings around the entire Proposed Project site." DEIR at B-16.

According to these figures, there will be more than 34 miles of chain link fencing associated with this project. Such a substantial amount of fencing, even with culverts at 100-yard intervals as proposed by the applicant to facilitate passage by federally endangered San Joaquin kit fox, would significantly impede movement across the project area for a number of species, including kit fox. We believe that such fencing scheme, despite the proposed experimental culvert design, is inadequate to allow for natural movement of the species and would result in movement restrictions that would have a high likelihood to increase the level of predation as well as needless and avoidable accidental mortality of kit foxes.

The following photo depicts a kit fox pup that got its head caught in a chain link fence and died. Interestingly, this photo comes from the publication "Permeable fence and wall designs that facilitate passage by endangered San Joaquin kit foxes," which was included in the applicant's proposed "Topaz Solar Farm San Joaquin Kit Fox Mitigation and Monitoring Plan." It was one of four photos included in Figure 3 of that publication (Appendix A, at 6) that discusses standard chain link fencing "in which the openings are too small to permit passage by kit foxes." *Ibid.*

Cypher and Van Horn Job, 2009.

We recommend that the project utilize a traditional three-to-four strand barbed wire fence with a smooth wire on the lowest tier to minimize risk of injury to wildlife crossing under the fencing and reduce hindrance of migratory wildlife corridors. We do not believe that such a fence design is an unreasonable request since the neighboring California Valley Solar Ranch Project as proposed by SunPower Corporation, if permitted, will utilize this fence design for its own large-scale photovoltaic project. If a more substantial perimeter fence must be installed, we suggest that the applicant construct metal fencing with the bottom of which raised 4-5 inches off the ground, thereby permitting easy under-passage by foxes at

any location along the entire perimeter of the project. Such fencing design is also suggested by Cypher and Van Horn Job in their aforementioned publication.

Impact BR-12 states that the project would result in the loss of golden eagle, American peregrine falcon, bald eagle, white-tailed kite and Swainson's hawk. However, the DEIR does not include information regarding consultation or incidental take permits under the federal Bald and Golden Eagle Act. The DEIR also does not identify compensatory mitigation for loss of foraging habitat on the site for golden eagles. We believe that due to the likely large number of golden eagles in close proximity to this project site, the project proponents will need to obtain a permit to take golden eagles under the Bald and Golden Eagle Act and its implementing regulations.

Mitigation measures are inadequate to reduce predation impacts to below significant levels. The DEIR cites several ways in which the project will increase or facilitate predation:

- Human activities can indirectly affect western spadefoot toads through increased noise or through onsite trash attracting predators such as the common raven, SJKF, and coyote (Boarman, 2002). Increased noise levels can also interfere with breeding and mask the approach of predators (at C.6-59).
- Available perch sites, human activities, and the availability of prey items can lead to a substantial increase in the population of raptors and especially crows. Temporary and permanent habitat loss and the loss of individual animals would be considered significant without mitigation (at C.6-58).
- …the placement of the solar arrays and their footings would provide cover for various predators such as foxes and owls. These factors would likely increase mortality of SJKF by other fox species and nocturnal predators (at C.6-53).

While the DEIR identifies compensatory mitigation, it does not identify measures to minimize the increased predation. Section 15370 of the CEQA Guidelines requires a hierarchy of avoidance, minimization, restoration/rectification/rehabilitation, or reduction of significant environmental impacts before project proponents turn to mitigation. Avoidance and minimization measures should be exhausted before project proponents examine compensatory mitigation options. The absence of any effort to avoid or minimize predation is unacceptable and must be rectified.

The DEIR states that compensatory mitigation lands for San Joaquin kit fox "may include lands to be restored. Restored lands would require the conversion from existing degraded conditions (i.e., active agriculture, unrestricted grazing, or other disturbed lands) to conditions that match or exceed habitat conditions on lands occupied by kit fox occurring on the proposed project site" (at C.6-119). How will the County determine that these lands are adequate for restoration? How will the County prove that these lands will be of the same quality or better quality than affected lands after restoration and eventually be occupied and used by kit fox? How will the County monitor to ensure use by kit fox? We strongly recommend that compensatory mitigation is directed to lands that are known to support kit fox instead of "experimenting" with restoration.

In addition, some of the kit fox minimization measures proposed in the DEIR are unproven. It is unclear whether artificial and escape dens are a proven impact minimization strategy,

particularly given that predators will likely be attracted by noise, human activity and (for birds) additional perches. Additionally, it is unclear whether preservation of open areas between the arrays as a minimization measure will be effective considering the Project is utilized by a core recovery population of kit fox and that a large area of kit fox habitat is being obstructed.

In addition to deficiencies with kit fox mitigation, the DEIR also does not identify acquisition lands for giant kangaroo rat (GKR). The acquisition plan has been illegally deferred because it lacks sufficient detail to determine how the acquisition will be implemented. See *California Native Plant Society v. County of El Dorado* (2009), 170 Cal. App. 4th 1026. In order to serve as an adequate substitute for traditional mitigation measures, a deferred mitigation plan must be evaluated under CEQA before implementation, including the requirement to circulate the plan for public comment. The DEIR does not include crucial factors, such as the amount and location of acquisition land, a timeline for acquisition, and identification of third party conservancies to administer acquisition. The DEIR also does not include a minimization measure for the impacts to GKR from construction noise and trampling of burrows during construction (at C.6-80). Without these essential details, it is impossible to rationally and reasonably conclude that the proposed mitigation is adequate to reduce impacts to a level less than significant.

Finally, mitigation details for several species have also been illegally deferred. The habitat restoration plan and compensatory mitigation plan for rare plants lacks detail. Avoidance measures are not discussed in detail. Plans for implementation of avoidance measures MM BR-7, MM BR-10, MM BR-14, MM BR-16 and MM BR-17 have been illegally deferred because they lack enough detail to determine how they will be implemented. See *California Native Plant Society v. County of El Dorado* (2009), 170 Cal. App. 4th 1026.

In light of all of the above-detailed deficiencies in the current proposed avoidance, minimization and mitigation plan for this Project, the County cannot reasonably conclude that the current project has met CEQA's requirement of minimizing and mitigating significant impacts to a level of less than significant. Therefore, any decision that such a standard has been met would be, on its face, arbitrary and capricious.

Cumulative impacts are inadequately addressed

Cumulative impacts to San Joaquin Valley upland species must be carefully evaluated, especially in light of the fact that there are solar energy projects proposed in the immediate vicinity of all three core populations for the kit fox deemed critical for recovery of the species. Trends in species populations and extent of at risk habitats will be an important aspect of this analysis. When evaluated comprehensively, these projects may constitute jeopardy under the federal ESA. Jeopardy occurs when an action is reasonably expected, directly or indirectly, to diminish a species numbers, reproduction, or distribution so that the likelihood of survival and recovery in the wild is appreciably reduced.

The proposed mitigation measure for cumulative impacts – Establish Program to Create Fence Removal or Modification Incentives (DEIR, page C.6-92) – is wholly inadequate. Cumulative impacts will affect thousands of acres of habitat for numerous species, including core habitat for San Joaquin kit fox, and create barriers to movement for tule elk and

pronghorn in the broader region. The only other proposed mitigation for cumulative impacts is the "California Valley Land Acquisition Program." On its face, this compensatory mitigation program may help to mitigate cumulative impacts. However, since there is very little detail in the DEIR regarding the program, it is unreasonable to conclude that such a program will actually accomplish its purported purpose. Details of the program, including even the most basic components, such as identification of third-party conservancies and a definition of conservation priorities, are missing. Again, similar to the problems plaguing the individual project impact analysis and mitigation, this failure to provide any substantive detail as to how cumulative impacts will be mitigated amounts to illegal deferred mitigation. See *California Native Plant Society v. County of El Dorado* (2009), 170 Cal. App. 4th 1026.

Conclusion

The Topaz Solar Farm is well-intentioned. But good intentions are not enough to overcome the tremendous permanent impacts this project would have on the biological resources of the Carrizo Plain. This area is home to some of the most imperiled species in California. The Carrizo Plain currently balances agricultural land use with the needs of rare species successfully. Implementation of the Project will eliminate that balance.

As detailed above, this Project and its DEIR need substantial revision and additional detail if there is any hope of this Project meeting CEQA standards and resulting in a project that mitigates its substantial impact on the environment.

Thank you once again for the opportunity to provide comments on the Topaz Solar Farm and for considering our comments. If you have any questions, please contact Pamela Flick at (916)313-5800 x105 or via email at pflick@defenders.org.

Respectfully submitted,

Kim Delfino
California Program Director