

THE WILDERNESS SOCIETY
NATURAL RESOURCES DEFENSE COUNCIL
DEFENDERS OF WILDLIFE

DOCKET

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July 1, 2010

CAPSSolarPalen@blm.gov

Re: Draft Environmental Impact Statement and California
Desert Conservation Area Plan Amendment for the
Proposed Palen Solar Power Project

Ms. Allison Shaffer:

This letter constitutes the comments on the above-captioned proposed solar project and draft environmental impact statement (DEIS) of The Wilderness Society (TWS), the Natural Resources Defense Council (NRDC), and the Defenders of Wildlife, all national environmental membership organizations with long histories of advocacy on behalf of the lands and resources administered by the Bureau of Land Management (BLM). More recently these organizations have been intensively involved in the Bureau's work to develop a comprehensive solar program as well as its efforts to "fast track" the permitting of individual utility-scale solar projects in California so that they may be eligible for grant funding under the American Recovery and Reinvestment Act of 2009 (ARRA).

Introduction. Our organizations recognize the need to develop the nation's renewable energy resources and to do so rapidly in order to respond effectively to the challenge of climate change. Unique natural resources here in California are already being affected by climate change, including, for example, the pikas of Yosemite National Park and the Joshua trees in Joshua Tree National Park. We also recognize that renewable energy development can help create jobs in communities that are eager for them, because of the nation's economic crisis. For these and other related reasons, our organizations are working with regulators and project proponents to move renewable energy projects forward. That said, renewable development is not appropriate everywhere on the public lands and must be balanced against the equally urgent need to protect unique and sensitive resources of the California Desert Conservation Area (CDCA). California is lucky indeed that we have sufficient renewable resources, including solar resources, to do their development in an environmentally and fiscally sensitive way.¹

As we and our colleagues at sister organizations have repeatedly stated, the best way to develop the solar resources of the CDCA is through comprehensive, pro-active planning by both the federal government and the state to identify the most appropriate areas for such development -- *i.e.*, solar development zones -- and to guide development to those zones. *See, e.g.*, letter dated June 29, 2009 to Interior Secretary Salazar and California's Governor Schwarzenegger and signed by 11 organizations, including our own, attached as Exhibit 1.

We support the BLM's adoption of zone designation for its forthcoming solar programmatic EIS because of the benefits inherent in this approach, including but not limited to clustering

¹ California's Renewable Energy Transition Initiative found, for example, that the state potentially could access 500 GW of renewable energy, an order of magnitude greater than the state's peak demand and far beyond the ability of our electric grid could handle.

development of large-scale projects in appropriate places, rather than permitting them to be located across the landscape in numerous locations. We also applaud the agency's – and the Interior Department's – commitment to work closely with the State of California in the development of the Desert Renewable Energy Conservation Plan which, as you may already know, will designate not only renewable energy development zones, but also zones for conservation as well as include a comprehensive mitigation strategy. The integration and completion of both of these efforts offers the promise of a balanced plan that will facilitate development of renewable resources in the Desert while protecting desert resources.

Despite our fundamental belief in the critical importance of agency-guided development of renewable energy, rather than developer-initiated development, we have, as indicated, been investing a great deal of time and effort into the fast track projects. We have done so in response to the emphasis the Department, the BLM and the developers place on meeting ARRA deadlines as well as the potential role these projects could play in meeting the renewable generation and economic goals of the state and federal governments. We have also done so because we wanted to make the projects, and especially the utility-scale solar projects, as environmentally sensitive as they can be and because we wanted to ensure, to the extent possible, that their accompanying environmental documents are as sound as they can be. It is now apparent to us that not even the best of the environmental documents being produced for the fast track projects and/or the best projects should be models or precedents for the future.

The fast track project sites were chosen without the benefit of siting criteria developed either by desert activists, environmental organizations, scientists and others, *see* Renewable Siting Criteria for California Desert Conservation Area, attached to June 29, 2009 letter referred to above, or by the BLM. The BLM in fact has yet to develop any siting guidance that would help field staff, developers and others identify appropriate sites – i.e., those with relatively low resource values and fewer resource conflicts. Moreover, the projects themselves were designated by Interior and the BLM as fast track projects without consideration of potential environmental issues. And, equally important, the timetable established for review of these projects did not take into account their scale, the agency's lack of experience with the technologies involved, and the agency's lack of expertise permitting these kinds of projects.

Regardless of the outcome of the environmental review process for this or any other fast track project, we urge the BLM and the Interior Department to acknowledge publicly the deficiencies of the current process and to commit publicly to improving it. More specifically, we urge both entities to affirm that neither the current process, nor any of the project sites, nor any of the environmental documents, establish any legal or procedural precedents for future decision-making, siting or environmental review. We make this urgent recommendation notwithstanding the fact that this particular project appears to be proposed for a site with acceptable areas and the accompanying DEIS represents a slight improvement in several respects over other such documents.

The Palen Solar Power Plant Project. The proposed project site has some characteristics that are conducive to solar development including a location near to existing infrastructure. The proposed site is 0.5 miles north of Interstate 10, which is also a designated utility corridor with existing and planned transmission lines. See Palen Solar Power Plant Project CEC-BLM SA/DEIS at A-4 and B.2-14. It is also 10 miles from the unincorporated area of Desert Center, *id.* A-4, and there are approximately 750 acres of agricultural land and 149 acres of developed land (roadways and cleared land) within a one-mile buffer to the east and southeast of the proposed project site. *Id.* C.2-16. Another characteristic conducive to solar development is the transmission capacity that exists approximately ten miles west of the Palen project site. It appears that a gen-tie line would be

built to connect to the Southern California Edison transmission system near Desert Center (the exact location is unknown at this time). Id. B.3-12.

Equally important, portions of this ROW application appear to be of comparatively lower natural resource values than some of the other ROW applications currently being considered for ARRA funding. The entire site implicates no Area of Critical Environmental Concern (ACEC) designated by the BLM or other special agency designation. Although the proposed site overlaps with approximately 210 acres of desert tortoise critical habitat, id. C.2-63, it is our understanding that this is because the habitat boundaries had been adjusted to follow section lines and are not necessarily an accurate representation of habitat suitability. The Desert Wildlife Management Area boundary (DWMA), located outside of the proposed project area, is a more accurate representation of habitat suitability for desert tortoise. Although the site does provide habitat and connectivity for desert tortoise, a federally endangered species, and signs indicating the presence of and use by desert tortoise were found in the study area, no live desert tortoise were found on the site, id. C.2-35, unlike other ARRA project sites such as Tessera's Calico project and Solar Millennium's Ridgecrest project which support sizable populations of this endangered species. See Calico Solar Power Project CEC-BLM SA/DEIS at C.2-3 and Ridgecrest Solar Power Project CEC-BLM SA/DEIS 5.3-1. While the above characteristics render some portions of the site more appropriate than some other locations for solar development, we do still have concerns about project impacts and the DEIS document.

Our principal concerns with the impacts of the Palen Solar project at this time relate to four biological resources: impacts to the sand transport corridor and stabilized and partially stabilized sand dunes in the eastern portion of the proposed project; impacts to desert tortoise connectivity and other wildlife movement corridors; impacts to the Chuckwalla DWMA and desert tortoise critical habitat from the proposed Red Bluff substation; and the availability of sufficient water for the proposed project.

Biological Resources: The proposed project would have direct impacts to 1,735 acres of Mojave fringe-toed lizard habitat in the eastern portion of the proposed project site where fine sandy soils are present in the active and stabilized sand dunes. Id. C.2-83. Because of impacts to downwind active sand dunes from the disruption of the sand transport corridor, the project would also have significant impacts to the downwind habitat for this species. Id. Populations of the Mojave fringe-toed lizard are naturally fragmented which "leaves the species vulnerable to local extirpations from additional habitat disturbance and fragmentation." Id. C.2-84. The Mojave fringe-toed lizard is considered sensitive by state and federal agencies and impacts from this project, as currently configured, are significant and unmitigable. Id. In light of this finding, we strongly urge the BLM to continue to modify this project in order to avoid impacts to the sand transport corridor and Mojave fringe-toed lizard habitat. One modification we support is an alternative that largely avoids the eastern one-half of the proposed project in order to provide a suitable level of protection for this sensitive species and its habitat.

A second area of concern is impacts to desert tortoise connectivity and other wildlife movement corridors. While this site is mostly considered low to moderate quality desert tortoise habitat (3,899 acres), id. C.2-63, the proposed project would significantly affect a desert tortoise habitat connectivity zone established pursuant to the Northern and Eastern Colorado Desert Coordinated Management Plan (NECO) to provide for movements north and south under I-10 and through existing drainage crossings. Id. ES-11 and C.2-82. This habitat connectivity zone connects high-quality desert tortoise habitat in between the Chuckwalla DWMA, Chuckwalla Valley, and the Chemehuevi DWMA. Id. ES-11. Large washes through the center of the project site (running southwest to northeast) provide wildlife movement corridors for various species and habitat

connectivity for desert tortoise. Id. C.2-82. Impacts to desert tortoise connectivity from the proposed project are unmitigable as the project is currently configured. Id. C.2-83. Again, we urge the BLM to modify the project in order to avoid and significantly reduce impacts to desert tortoise connectivity and wildlife movement corridors.

A third area of concern is the potential environmental impacts from the construction and operation of the proposed Red Bluff substation and the gen-tie line. Although the exact location of the substation is unknown, id. B.3-12, the DEIS states that it will be located in the Chuckwalla DWMA and desert tortoise critical habitat unit. Id. C.2-110. We urge the BLM to evaluate alternative sites for the substation to avoid impacts to the desert tortoise and Mojave fringe-toed lizard.

Finally, the letter from the Colorado River Board of California dated March 22, 2010 indicates that the issue of groundwater availability for this project has not yet been settled. No new water from the Colorado River is available for this project including groundwater from lands underlying the “accounting surface” “except through the contract of an existing BCPA Section 5 contract holder”, page 2. The availability of sufficient water for the construction and operation of this facility is a key issue for this project and must be addressed in subsequent environmental analysis. The BLM must document for itself and the public that the developer in fact has the water needed for this project in hand; otherwise the agency cannot approve this proposed project.

Cultural Resources: Analysis of the proposed project’s impacts to cultural resources is still ongoing. Id. C.3-1. The agencies are currently undertaking a negotiated stakeholder Programmatic Agreement (PA) that they expect to complete midsummer. Id. C.3-15. The PA will also address mitigation for project impacts to cultural resources. In addition, cultural resources data compilation for the reconfigured alternative is ongoing and the analysis of impacts to cultural resources will be included in the Supplemental Staff Assessment that the CEC has already committed to prepare. Id. ES-17. The BLM must also incorporate this information into its review of this proposed project and assess all project impacts – direct, indirect and cumulative – to cultural resources. Pending additional information and analysis on cultural resources, we reiterate our recommendation from our scoping comments that the BLM develop strategies to minimize and mitigate impacts on the area’s outstanding cultural resources and engage in consultation with local Native American tribes. Finally, we do not believe the BLM can finalize a NEPA document for this project without fully complying with the Section 106 requirements of the National Historic Preservation Act. The relevant findings regarding impacts to cultural resources and Native American values associated with the proposed project must be disclosed in the NEPA analysis.

DEIS Elements: Our concerns with the draft environmental review document itself relate to three key elements: the purpose and need statement, the alternatives considered, and the cumulative impact analysis, all of which were problems with the Bureau’s first solar DEIS, the Ivanpah DEIS, and are showing incremental improvement with subsequent DEIS documents including the Palen Solar Power Plant DEIS. We are also concerned about how the BLM will ensure that the new proposal(s) and new information that have come to light or will come to light after publication of the DEIS will be fully analyzed and made available to the public. To maximize the legal defensibility of the Palen environmental review process, the BLM should seriously consider issuing a supplemental DEIS. Our organizations also believe that the DEIS should have addressed the impacts that climate change will have on species and their habitats.

The purpose and need statement for this project is slightly broader than the one in the Ivanpah draft, but it remains too narrow. Ivanpah’s original purpose and need was explicitly limited to a

stark dichotomy: “approve” or “deny” the company’s application for a solar project and, as the result, the first draft document addressed only the “no action” option and the “proposed project.” A supplemental draft with a revised purpose and need and additional alternatives was issued in an attempt to remedy this egregious approach to “the heart” of the process established by the National Environmental Policy Act (NEPA).

The Palen EIS draft states that the BLM’s purpose and need is “to respond to” the company’s ROW application. Id. A-11. The BLM should avoid both this mindset as well as too narrow a statement of purpose and need in order to help ensure that its EISs are legally defensible documents. In place of the statement that was used here, our organizations urge the adoption of the following to achieve these goals:

The purpose of the proposed action is to “facilitate environmentally responsible commercial development of solar energy projects”² consistent with the statutory authorities and policies applicable to the Bureau of Land Management, including those providing for contributions towards achieving the renewable energy and economic stimulus and renewable energy development objectives under the Energy Policy Act of 2005 (EPAAct), the American Recovery and Re-Investment Act, and Presidential and Secretarial orders as well as the Federal Land Policy and Management Act (FLPMA).

The need for this action is to implement Federal policies, orders and laws that mandate or encourage the development of renewable energy sources, including the Energy Policy Act of 2005, which encourages the Department of the Interior to seek to approve at least 10,000 MW of non-hydropower renewable energy on public lands by 2015, and the Federal policy goal of producing 10% of the nation's electricity from renewable resources by 2010 and 25% by 2025; to enable effective implementation of the economic incentives for qualifying projects intended by the American Recovery and Reinvestment Act; and to support the State of California's renewable energy and climate change objectives, consistent with BLM’s mandates and responsibilities under FLMPA.

This kind of purpose and need statement would clearly satisfy applicable legal requirements, see, e.g., National Parks Conservation Assn v. BLM, 586 F.3rd 735 (9th Cir. 2009), and thus help ensure that environmentally acceptable projects – which this project may end up being –will not only be permitted but will also be built without unnecessary delays.

Alternatives: The DEIS for the Palen Solar project shows some improvement over the Ivanpah DEIS in its treatment of alternatives – in addition to the proposed project, two build alternatives are presented for NEPA analysis and three no project approval alternatives.³ See Palen DEIS at B.2-3.

We recommended in previous comments on this proposed project that the BLM consider alternative configurations for this project that avoid impacts to the northeast and eastern portions of the site where the stabilized and partially stabilized sand dunes are located. We also urged the BLM to work to address impacts from the project to Mojave fringe-toed lizard and desert tortoise

² This quotation is from Secretary Salazar himself.

³ One CEQA-only alternative is analyzed. See Palen DEIS at B.2-19.

movement including a desert tortoise connectivity zone established to provide for movements north and south under I-10 through existing drainage crossings. Id. C.2-82.

The BLM has included two alternatives that reduce impacts to biological resources in comparison to the proposed project: the reconfigured alternative modifies the shape of the western and eastern power blocks to avoid some impacts to desert washes and wildlife movement corridors, id. B.2-1, and the reduced acreage alternative further eliminates portions of the proposed project that would have unmitigable impacts to both the sand transport corridor in the northern and northeastern portion and the wildlife movement corridor and reduces the project to 375 MW, id. B.2-1.

It appears that the reconfigured project would reduce impacts to the main wash through the project site (that acts as a local sand source, provides Mojave fringe-toed lizard habitat and a wildlife movement corridor), but would still have substantial indirect impacts to stabilized and partially stabilized sand dunes. Id. C.2-2 and C.2-5. The 375 MW smaller project alternative would provide the benefits described above from the reconfigured alternative and would also substantially reduce the impacts to the sand transport corridor, sand dune habitat, and Mojave fringe-toed lizard of the construction and operation of the proposed project. Id.

The reduced acreage alternative also eliminates the project overlap with 210 acres of Critical Habitat for desert tortoise in the southwestern portion of the project area. Id. B.2-1. However, as indicated above, it is our understanding that the project's overlap with desert tortoise Critical Habitat is because the critical habitat boundaries had been adjusted to follow section lines and are not necessarily an accurate representation of habitat suitability. In fact, almost the entirety of the Chuckwalla Desert Critical Habitat Unit is located south of I-10, while the small area that overlaps with the proposed project is north of the interstate. It is unclear that avoiding this area would reduce significant biological impacts.

We are pleased that the BLM recognizes the significant impacts that would occur to the Mojave fringe-toed lizard, its habitat, and the sand transport corridor from the proposed project footprint as well as the reconfigured alternative. Id. B.2-12, C.2-5 and C.2-83. We urge the BLM to continue to work with the applicant to address potential impacts to biological resources. The most effective way of mitigating significant impacts is through avoidance, which would entail consideration and adoption of an alternative that ensures important habitat and sensitive species in the northeast and eastern portions of the project site. Changes to the configuration and size of the project to reduce such impacts that have been developed after the release of the DEIS must be fully analyzed and made available to the public.

However, we are still concerned that the BLM's approach to the analysis of alternatives for the proposed project has unnecessarily limited the range of alternatives. The BLM states that it considers alternatives proposed to be located on lands outside of its jurisdiction to be "unreasonable." Id. B.2-2. In defining what is a "reasonable" range of alternatives, NEPA requires consideration of alternatives "that are practical or feasible" and not just "whether the proponent or applicant likes or is itself capable of carrying out a particular alternative"; in fact, "[a]n **alternative that is outside the legal jurisdiction of the lead agency must still be analyzed in the EIS if it is reasonable.**" Council on Environmental Quality, *Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations, Questions 2A and 2B*, available at <http://ceq.hss.doe.gov/nepa/regs/40/40p3.htm>; 40 C.F.R. §§ 1502.14, 1506.2(d). The California Energy Commission (CEC) considers alternatives that include private lands provided site control can be obtained in a reasonable timeframe and with some certainty. In the case of the North of Desert Center private land alternative, the CEC found this alternative includes approximately 151

parcels with 40 separate landowners and that site control could be challenging to obtain due to the number of private land owners. See Palen DEIS at B.2-2.

Finally, we are concerned with the BLM's failure to include adequate information regarding the environmental impacts from the construction and operation of the proposed Red Bluff substation and the gen-tie line in the DEIS. Although the exact location of the substation is unknown, id. B.3-12, the DEIS states that it will be located in the Chuckwalla DWMA and desert tortoise critical habitat unit. Id. C.2-110. The DEIS should have included alternatives for the substation location that would have avoided this DWMA and impacts to the desert tortoise and Mojave fringe-toed lizard. We urge the BLM to address this deficiency in subsequent environmental review documents.

Cumulative Impacts: In order to properly site renewable energy projects, it is essential that a cumulative impacts analysis be conducted to fully evaluate the implications of this type of development on public lands. Cumulative impact is defined as the impact on the environment which results from the incremental impacts of the action when added to other past, present, and reasonably foreseeable future action regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. 40 C.F.R. § 1508.7.

There are multiple solar and transmission projects proposed in the vicinity of the Palen Solar power plant that will contribute to overall cumulative impacts to sensitive resources in this area. A list of existing and future foreseeable projects along the 1-10 corridor in Eastern Riverside County is included in the DEIS. See Palen DEIS at B.3-8 to B.3-13. In addition to the proposed solar and transmission projects, the DEIS identifies residential development projects, a large race track, and several other projects that will also contribute to cumulative impacts. Id. B.3-9 to B.3-13. While not all of these projects are being permitted by the Bureau, all reasonable efforts must be made to obtain information regarding their potential impacts and construction timing so that a full picture of cumulative impacts can be presented in the final EIS.

The DEIS utilizes qualitative information about these existing and foreseeable projects to develop estimates and model impacts to key topics such as air quality and biological resources. More quantitative information is highly desirable, to supplement this qualitative material. In addition, the DEIS should address impacts from this project in the context of other connected projects including the associated Red Bluff substation. Further, the cumulative impact analysis should evaluate at-risk species and their habitats in the region to identify the condition and trend for these species and whether additional impacts from current and foreseeable future projects would conform to BLM policy on special status species management (Manual 6840), wildlife habitat management (Manual 6500), as well as legal mandates for public land management established by FLPMA.

FLPMA mandates that public lands: "...be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use;" (Sec. 5 102(8)). FLPMA also addresses management of public lands within the CDCA: "the California desert environment is a total ecosystem that is extremely fragile, easily scarred, and slowly healed. (Sec. 601(a)(2)); and "the California desert environment and its resources, including certain rare and endangered species of wildlife, plants, and fishes, and numerous archeological and historic sites, are seriously threatened by air pollution, inadequate Federal management authority, and pressures

of increased use, particularly recreational use, which are certain to intensify because of the rapidly growing population of southern California; (Sec. 601(a)(3)); and lastly, “ It is the purpose of this section to provide for the immediate and future protection and administration of the public lands in the California desert within the framework of a program of multiple use and sustained yield, and the maintenance of environmental quality. (Sec. 601(b)).

Climate Change Impacts: The DEIS’s discussion of climate change focuses on the reduction of greenhouse gases and the development of renewable energy resources. That is, it looks at the effects of the proposed action on climate change. It does not, however, analyze the impacts of climate change on species of concern in the project area, on their habitats, or on the importance of maintaining habitat connectivity in the sustaining species diversity and landscape level movements. The latter impacts are clearly relevant. *See, e.g.*, Secretarial Order 3289, Addressing the Impacts of Climate Change on America’s Water, Land, and Other Natural and Cultural Resources (February 22, 2010). Such an analysis will allow the BLM to assess and reduce the vulnerabilities of the proposed action to climate change, integrate climate change adaptation into the proposed action and alternatives and produce accurate predictions of environmental consequences of the proposed actions and alternatives.

New Information: Lastly, we are concerned, as indicated above, about the new information, including information on the proposed project’s impacts to cultural resources in the reconfigured alternative, id. C.3-1, information about the location of the Red Bluff substation, id. B.3-12, information on further modifications to the configuration of the preferred alternative, id. A-2, and the complete survey results including data from special status plant and golden eagle surveys conducted this year, id. C.2-94, that has been developed since the DEIS was printed. In addition, the California Energy Commission will release a new document, the Palen Revised Staff Assessment, with relevant information to this project and information that was not available in the Palen DEIS. Id. A-2. If BLM issues a supplemental DEIS, new information in the Palen Revised Staff Assessment should be incorporated into that document.

BLM should make every effort to ensure that all this new information is made available to the public (and other agencies) along with assessments and analyses of the information as well as that the public is given an opportunity to comment thereon. Public input on agency proposals is one of the hallmarks of NEPA review and it is to prevent the undermining of that critical aspect that limits have been imposed on agency efforts to “load up” final EISs with excessive amounts of new information.

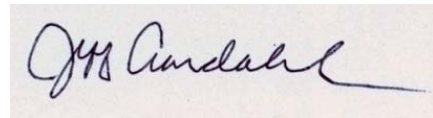
Conclusion. In conclusion, some areas within the site proposed for this project appear to have fewer resource conflicts than some of the other sites currently being reviewed for fast-track projects, but nonetheless the impacts to the resources identified in these comments and to other desert resources must be fully analyzed, avoided, and mitigated through the BLM process. As we have previously noted, renewable development is not appropriate everywhere on the public lands and must be balanced against the equally urgent need to protect unique and sensitive resources of the CDCA. California is lucky indeed that we have sufficient renewable resources, including solar resources, to do their development in an environmentally responsible manner.

Thank you in advance for considering our comments. If you have any questions about them, please do not hesitate to contact us.

Sincerely,



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Audubon California
California Native Plant Society * California Wilderness Coalition
Center for Biological Diversity * Defenders of Wildlife
Desert Protective Council * Mojave Desert Land Trust
National Parks Conservation Association
Natural Resources Defense Council * Sierra Club * The Nature Conservancy
The Wilderness Society * The Wildlands Conservancy

Renewable Siting Criteria for California Desert Conservation Area

Environmental stakeholders have been asked by land management agencies, elected officials, other decision-makers, and renewable energy proponents to provide criteria for use in identifying potential renewable energy sites in the California Desert Conservation Area (CDCA). Large parts of the California desert ecosystem have survived despite pressures from mining, grazing, ORV, real estate development and military uses over the last century. Now, utility scale renewable energy development presents the challenge of new land consumptive activities on a potentially unprecedented scale. Without careful planning, the surviving desert ecosystems may be further fragmented, degraded and lost.

The criteria below primarily address the siting of solar energy projects and would need to be further refined to address factors that are specific to the siting of wind and geothermal facilities. While the criteria listed below are not ranked, they are intended to inform planning processes and were designed to provide ecosystem level protection to the CDCA (including public, private and military lands) by giving preference to disturbed lands, steering development away from lands with high environmental values, and avoiding the deserts' undeveloped cores. They were developed with input from field scientists, land managers, and conservation professionals and fall into two categories: 1) areas to prioritize for siting and 2) high conflict areas. The criteria are intended to guide solar development to areas with comparatively low potential for conflict and controversy in an effort to help California meet its ambitious renewable energy goals in a timely manner.

Areas to Prioritize for Siting

- Lands that have been mechanically disturbed, i.e., locations that are degraded and disturbed by mechanical disturbance:
 - Lands that have been “type-converted” from native vegetation through plowing, bulldozing or other mechanical impact often in support of agriculture or other land cover change activities (mining, clearance for development, heavy off-road vehicle use).¹
- Public lands of comparatively low resource value located adjacent to degraded and impacted private lands on the fringes of the CDCA:²
 - Allow for the expansion of renewable energy development onto private lands.
 - Private lands development offers tax benefits to local government.
- Brownfields:
 - Revitalize idle or underutilized industrialized sites.
 - Existing transmission capacity and infrastructure are typically in place.

- Locations adjacent to urbanized areas:³
 - Provide jobs for local residents often in underserved communities;
 - Minimize growth-inducing impacts;
 - Provide homes and services for the workforce that will be required at new energy facilities;
 - Minimize workforce commute and associated greenhouse gas emissions.
- Locations that minimize the need to build new roads.
- Locations that could be served by existing substations.
- Areas proximate to sources of municipal wastewater for use in cleaning.
- Locations proximate to load centers.
- Locations adjacent to federally designated corridors with existing major transmission lines.⁴

High Conflict Areas

In an effort to flag areas that will generate significant controversy the environmental community has developed the following list of criteria for areas to avoid in siting renewable projects. These criteria are fairly broad. They are intended to minimize resource conflicts and thereby help California meet its ambitious renewable goals. The criteria are not intended to serve as a substitute for project specific review. They do not include the categories of lands within the California desert that are off limits to all development by statute or policy.⁵

- Locations that support sensitive biological resources, including: federally designated and proposed critical habitat; significant⁶ populations of federal or state threatened and endangered species,⁷ significant populations of sensitive, rare and special status species,⁸ and rare or unique plant communities.⁹
- Areas of Critical Environmental Concern, Wildlife Habitat Management Areas, proposed HCP and NCCP Conservation Reserves.¹⁰
- Lands purchased for conservation including those conveyed to the BLM.¹¹
- Landscape-level biological linkage areas required for the continued functioning of biological and ecological processes.¹²
- Proposed Wilderness Areas, proposed National Monuments, and Citizens' Wilderness Inventory Areas.¹³
- Wetlands and riparian areas, including the upland habitat and groundwater resources required to protect the integrity of seeps, springs, streams or wetlands.¹⁴
- National Historic Register eligible sites and other known cultural resources.
- Locations directly adjacent to National or State Park units.¹⁵

EXPLANATIONS

¹ Some of these lands may be currently abandoned from those prior activities, allowing some natural vegetation to be sparsely re-established. However, because the desert is slow to heal, these lands do not support the high level of ecological functioning that undisturbed natural lands do.

² Based on currently available data.

³ Urbanized areas include desert communities that welcome local industrial development but do not include communities that are dependent on tourism for their economic survival.

⁴ The term "federally designated corridors" does not include contingent corridors.

⁵ Lands where development is prohibited by statute or policy include but are not limited to:

National Park Service units; designated Wilderness Areas; Wilderness Study Areas; BLM National Conservation Areas; National Recreation Areas; National Monuments; private preserves and reserves; Inventoried Roadless Areas on USFS lands; National Historic and National Scenic Trails; National Wild, Scenic and Recreational Rivers; HCP and NCCP lands precluded from development; conservation mitigation banks under conservation easements approved by the state Department of Fish and Game, U.S. Fish and Wildlife Service or Army Corps of Engineers a; California State Wetlands; California State Parks; Department of Fish and Game Wildlife Areas and Ecological Reserves; National Historic Register sites.

⁶ Determining “significance” requires consideration of factors that include population size and characteristics, linkage, and feasibility of mitigation.

⁷ Some listed species have no designated critical habitat or occupy habitat outside of designated critical habitat. Locations with significant occurrences of federal or state threatened and endangered species should be avoided even if these locations are outside of designated critical habitat or conservation areas in order to minimize take and provide connectivity between critical habitat units.

⁸ Significant populations/occurrences of sensitive, rare and special status species including CNPS list 1B and list 2 plants, and federal or state agency species of concern.

⁹ Rare plant communities/assemblages include those defined by the California Native Plant Society’s Rare Plant Communities Initiative and by federal, state and county agencies.

¹⁰ ACECs include Desert Tortoise Desert Wildlife Management Areas (DWMAs). The CDCA Plan has designated specific Wildlife Habitat Management Areas (HMAs) to conserve habitat for species such as the Mohave ground squirrel and bighorn sheep. Some of these designated areas are subject to development caps which apply to renewable energy projects (as well as other activities).

¹¹ These lands include compensation lands purchased for mitigation by other parties and transferred to the BLM and compensation lands purchased directly by the BLM.

¹² Landscape-level linkages provide connectivity between species populations, wildlife movement corridors, ecological process corridors (e.g., sand movement corridors), and climate change adaptation corridors. They also provide connections between protected ecological reserves such as National Park units and Wilderness Areas. The long-term viability of existing populations within such reserves may be dependent upon habitat, populations or processes that extend outside of their boundaries. While it is possible to describe current wildlife movement corridors, the problem of forecasting the future locations of such corridors is confounded by the lack of certainty inherent in global climate change. Hence the need to maintain broad, landscape-level connections. To maintain ecological functions and natural history values inherent in parks, wilderness and other biological reserves, trans-boundary ecological processes must be identified and protected. Specific and cumulative impacts that may threaten vital corridors and trans-boundary processes should be avoided.

¹³ Proposed Wilderness Areas: lands proposed by a member of Congress to be set aside to preserve wilderness values. The proposal must be: 1) introduced as legislation, or 2) announced by a member of Congress with publicly available maps. Proposed National Monuments: areas proposed by the President or a member of Congress to protect objects of historic or scientific interest. The proposal must be: 1) introduced as legislation or 2) announced by a member of Congress with publicly available maps. Citizens' Wilderness Inventory Areas: lands that have been inventoried by citizens groups, conservationists, and agencies and found to have defined “wilderness characteristics.” The proposal has been publicly announced.

¹⁴ The extent of upland habitat that needs to be protected is sensitive to site-specific resources. For example: the NECO Amendment to the CDCA Plan protects streams within a 5-mile radius of Townsend big-eared bat maternity roosts; aquatic and riparian species may be highly sensitive to changes in groundwater levels.

¹⁵ Adjacent: lying contiguous, adjoining or within 2 miles of park or state boundaries. (Note: lands more than 2 miles from a park boundary should be evaluated for importance from a landscape-level linkage perspective, as further defined in footnote 12).