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# Central Valley Renewable Energy Project

## *Recommendations for Implementing Smart from the Start Renewable Energy Siting*

Defenders of Wildlife

February, 2012

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### **Executive Summary**

As mandated by AB 32 and SBx1-2, California has embarked on an aggressive path to shift its energy portfolio to renewable sources. These renewable energy mandates coupled with the financial incentives offered to energy developers through the American Recovery and Reinvestment Act (ARRA) of 2009 have resulted in a vigorous push to increase the permitting and construction of renewable energy projects and transmission lines in California. As of late January 2012, there are 59 solar PV projects in the permitting process within the five southern San Joaquin Counties. These proposed projects, if all are approved and constructed, would encumber 23,118 acres and potentially generate 2,780 MW of power. This is in addition to the 45 projects that have already been approved, encumbering 17,570 acres and projected to generate 1,648 MW of power.

Defenders of Wildlife (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. 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 and the long-term impacts of climate change on our biological diversity, fish and wildlife habitat, natural landscapes, and productive prime agricultural lands. To ensure that the proper balance is achieved, we need “Smart from the Start” planning for renewable power that avoids and minimizes adverse impacts on wildlife, valuable agricultural lands and lands with known high-resource values such as vernal pools, foraging habitat, riparian corridors and transitional biotic zones. This approach provides two clear benefits: avoidance of unnecessary impacts on important natural resources and more efficient permitting for important clean energy projects.

The Central Valley Renewable Energy Project (CVREP) seeks to identify methods and opportunities to incentivize “Smart from the Start” siting of renewable energy and related transmission projects on low value agricultural and habitat lands as an important strategy for accelerating renewable energy development while protecting important natural resources. The

CVREP defines renewable energy as solar thermal, solar photovoltaic (PV), wind energy and geothermal. Although limited in scope to the five southern San Joaquin Counties of Fresno, Kern, Kings, Madera and Tulare, it is expected that CVREP will provide insights and benefits applicable statewide. This report, *“Recommendations for Implementing Smart from the Start Renewable Energy Siting”* is one of the products that will come out of the CVREP.

Our review of renewable energy development in the five Southern San Joaquin Counties reveals five common issue areas: Lack of Planning Capacity and Tools, Regional Coordination, Transmission Planning and Capacity, Lack of Focus on Impaired or Degraded Lands, and Inadequate Environmental Review/Analysis and Permitting. Each of these problems undermines “Smart from the Start” planning for renewable energy projects. At the same time, the strong state and federal focus on rapidly expanding the country’s renewable energy portfolio provides many opportunities to overcome these challenges and implement better planning for renewable energy siting.

The following recommendations are based upon insights gained from tracking proposed renewable energy projects within the southern San Joaquin Valley; discussions with county level staff and decision makers, state and federal agencies involved with renewable energy siting and permitting, stakeholders in the region, and renewable energy developers; and participation in various workgroups addressing renewable energy planning.

## **Recommendations:**

### **Address a Lack of Planning Capacity and Tools:**

- Establish a renewable energy clearinghouse at the Governor’s Office of Planning and Research to provide land use planning guidance and technical support to local governments undertaking renewable energy planning and permitting.
- Establish centralized tracking and mapping of locations, acreages and environmental characteristics of proposed renewable energy project sites and related transmission upgrades to facilitate coordinated, comprehensive land use and environmental planning for renewable energy.
- Establish renewable energy combining or overlay zoning districts or siting criteria to incentivize Smart from the Start renewable energy development.
- Implement tiered permitting approaches that provide for streamlined, legally minimal permitting for Smart from the Start renewable energy projects.
- Include clearly defined Smart from the Start development standards and siting criteria in regulatory codes adopted by local jurisdictions for renewable energy projects.

- Develop and implement best practices-based model energy elements, development codes, and conditions of approval to build local jurisdiction's capacity to effectively and efficiently review and permit renewable energy projects.
- Provide funding to local jurisdictions for renewable energy planning.

### **Provide Regional Coordination:**

- Implement comprehensive regional planning and mapping to identify locations or siting criteria that are most appropriate for renewable energy development based upon energy resources, biological resources, agricultural lands, cultural resources and land uses.
- Identify "energysheds" - areas at a regional or county level that have renewable energy resources and the appropriate land, environmental characteristics, and other resources that have the highest potential for effective Smart from the Start renewable energy development.
- Adopt Energy Elements to local jurisdiction's General Plans that are based upon the regional planning and identification of energysheds.
- Provide funding to local jurisdictions for regional coordination of renewable energy planning and permitting.

### **Improve Transmission Planning and Capacity:**

- Plan future transmission lines and systems to serve identified energysheds to incentivize and facilitate Smart from the Start renewable energy siting.
- Establish regional coordination between transmission Balancing Authorities to avoid duplicative infrastructure.
- The CA ISO should prioritize transmission lines and upgrades such as the Midway-Gregg line to serve the southern San Joaquin Valley
- Develop and maintain a centralized transmission capacity information portal to provide current and projected transmission capacity information to land use planners and local government to assist their planning for renewable energy in their jurisdictions.

## **Focus on Impaired or Degraded Lands:**

- Utilize quantifiable analysis such as the Land Evaluation and Site Assessment (LESA) model to identify impaired lands. In areas with unique constraints, such as the Westlands Water District, consideration should be given to developing an area specific LESA model to further refine the analysis.
- Utilize renewable energy specific tools for the interim management of Williamson Act contracts such as those in SB 618 (Wolk).
- Develop and implement Smart from the Start criteria for renewable energy development of impaired agricultural lands.
- Pursue Smart from the Start renewable energy project siting at degraded lands such as brownfields, closed landfills, Superfund sites, Resource Recovery and Conservation Act (RCRA) and closed mine lands.
- Pursue Smart from the Start renewable energy project siting on agricultural lands that are demonstrably chemically or physically impaired.

## **Improve Environmental Review/Analysis and Permitting:**

- Implement consistent and defensible approaches to environmental impact analysis and mitigation. Require, at minimum, threshold biological studies, cultural resource record searches and, for agricultural lands, site-specific soil resources reports and LESA model analysis.
- Consistently address cumulative impacts of renewable energy and related transmission upgrade projects as part of the CEQA process.
- Ensure early coordination of endangered species permitting between U.S. Fish and Wildlife Service and California Department of Fish and Game.
- Develop regional mitigation protocols and strategies for fish, wildlife and habitat to provide a better defined, more uniform and coordinated mitigation approach by the agencies.
- Utilize “low effect” habitat conservation plans under the federal Endangered Species Act.

## Introduction

California has embarked on an aggressive path to shift its energy portfolio to renewable sources. On November 17, 2008, Governor Arnold Schwarzenegger signed Executive Order S-14-08 requiring that "...all retail sellers of electricity shall serve 33 percent of their load with renewable energy by 2020." The following year, Executive Order S-21-09 directed the California Air Resources Board, under its AB 32 authority, to enact regulations to achieve the goal of 33 percent renewables by 2020. In the ongoing effort to codify the ambitious 33 percent by 2020 goal, SBx1-2 was signed by Governor Edmund G. Brown, Jr., in April 2011. This renewable energy mandate coupled with the financial incentives offered to energy developers through the American Recovery and Reinvestment Act (ARRA) of 2009 has resulted in a vigorous push to increase the permitting and construction of renewable energy projects and transmission lines in California.

Defenders of Wildlife (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. 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, natural landscapes, and productive prime agricultural lands. To ensure that the proper balance is achieved, we need "Smart from the Start" planning for renewable power that avoids and minimizes adverse impacts on wildlife, valuable agricultural lands and lands with known high-resource values such as vernal pools, foraging habitat, riparian corridors and transitional biotic zones. This approach provides two clear benefits: avoidance of unnecessary impacts on important natural resources and more efficient permitting for important clean energy projects.

The rapid and necessary deployment of renewable energy projects in California has been primarily focused on federal lands in the Mojave and Colorado deserts. These lands, highly desirable for renewable energy production, are rich and fragile ecosystems. While it is important to continue to focus efforts on well-sited projects within the desert, many solar energy project developers are now seeking projects in potentially lower impact areas such as private lands in California's Southern Central Valley. The Central Valley Renewable Energy Project (CVREP) seeks to identify methods and opportunities to incentivize "Smart from the Start" siting of renewable energy projects on low value agricultural and habitat lands as an important strategy for accelerating renewable energy development while protecting important natural resources. The CVREP defines renewable energy as solar thermal, solar photovoltaic (PV), wind energy and geothermal. Although limited in scope to the five southern San Joaquin Counties of Fresno, Kern, Kings, Madera and Tulare, it is expected that CVREP will provide insights and benefits applicable statewide. This report "*Recommendations for Implementing Smart from the Start Renewable Energy Siting*" is one of the products of the CVREP.

## **Regional Setting**

Five counties make up the southern San Joaquin Valley – Fresno, Kern, Kings, Madera and Tulare. These counties are home to some of the richest, most productive farmland in the world and to some of our most imperiled plants, wildlife and habitats. In recent years substantial residential growth has impacted these lands and the proposed high-speed rail project to be built through these counties is expected to further drive growth. Nestled amongst these competing resource needs is Naval Air Station Lemoore, which has its own demands for development restrictions as well as open space requirements to accommodate its operations.

These counties also enjoy a temperate climate with some of the best solar resources in the world and they have become an area of intense interest for solar energy developers. Forty-five solar PV projects have been approved as of late January 2012 in the southern San Joaquin Valley, which if financed and constructed would encumber 17,570 acres of farm and grazing land and are projected to generate 1,648 MW of power. There are an additional 59 proposed solar PV projects in the southern San Joaquin Valley, which, if all were approved, financed and constructed, would encumber 23,118 acres of farmland and grazing land and potentially generate 2,780 MW of power. At this time, there are no permitted or proposed wind or geothermal projects in the Central Valley portion of the five counties.

Westlands Water District lies on the west side of the valley and encompasses more than 600,000 acres of farmland in western Fresno and Kings Counties. The District has been severely impacted by drainage problems. Irrigation water imported from the Delta contains high levels of salt. A shallow layer of Corcoran Clay underlies some west side lands and prevents water from filtering deep into the ground. With no place to drain, the salty water has built up above the clay layers and reached the surface, impairing crop root zones, reducing yields and diminishing land productivity. The drainage issue compounds the problems brought on by naturally occurring high levels of selenium in the soils within the Westlands area.

Past years of drought, along with reduced and less reliable water deliveries from the Central Valley Project further strain agricultural use of the land in the Westlands Water District. As a result, many of the farmers within the District are seeking new economic uses for their land. The majority of the solar PV projects proposed in Fresno County are located within the Westlands Water District, including the high profile Westlands Solar Park and the 1,890 acre Mendota Solar Project proposed by SunPower. In Kings County, the proposed 1,400-acre Mustang solar project is also located within the Westlands Water District.

## **Regulatory Framework**

Commercial or utility scale renewable energy projects are a relatively new land use for the southern San Joaquin Valley. The five counties have varying regulatory approaches to renewable energy and currency of their planning policies. Kern County has been planning for renewable energy development since the mid-1990s and has the longest track record for permitting renewable energy projects. Tulare County adopted criteria for permitting solar and



wind projects on farmland in August 2010 and is in the process of updating its General Plan. Kings County adopted its 2035 General Plan a year ago and renewable energy facilities for commercial markets are permitted in agricultural zones with a Conditional Use Permit. Fresno and Madera counties have older general plans, 2000 and 1995 respectively, and their plans and development codes are silent on utility scale renewable energy development.

Each of the counties require some form of a conditional use permit (CUP) for establishment of commercial or utility scale solar or wind projects. Fresno, Kings, Madera and Tulare counties are utilizing Initial Study/Mitigated Negative Declarations (IS/MND) for California Environmental Quality Act (CEQA) compliance on the majority of the proposed projects. Fresno and Kings Counties have recently received applications for very large scale solar PV projects and are anticipating requiring Environmental Impact Reports (EIR) for those projects. Kern County is requiring EIRs for commercial or utility scale solar and wind projects countywide and is consolidating multiple projects into single EIRs to streamline the process when appropriate.

## **Issues and Opportunities**

The five Southern San Joaquin counties share five issue areas: Lack of Planning Capacity and Tools, Lack of Regional Coordination, Transmission Planning and Capacity, Lack of Focus on Impaired or Degraded Lands, and Inadequate Environmental Review/Analysis and Permitting. Each of these issues areas present obstacles for counties to provide “Smart from the Start” planning for renewable energy projects. At the same time the strong state and federal focus on rapidly expanding the country’s renewable energy portfolio provides opportunities with additional tools and a political climate to overcome these challenges and implement better planning for renewable energy siting.

### **Lack of Planning Capacity and Tools**

Renewable energy projects present new challenges for planning staff. These are large-scale projects with impacts to biological, agricultural and cultural resources similar to large residential developments but with new technological criteria, regulatory requirements, and business models. Currently adopted general plan policies, development codes, and permitting processes generally do not provide sufficient guidance to planning staff, project proponents, decision makers and the public to facilitate “Smart from the Start” renewable energy project siting. Local government generally lacks sufficient funding to engage in drafting, adopting and implementing new planning policies for renewable energy and is particularly concerned about the potential of costly legal challenges to proposed plans and associated environmental review documents.

All public agencies – federal, state and local – are challenged by lack of capacity due to lack of funding. State and federal agencies and local jurisdictions are operating with less staff than is needed for the workload. This results in extended processing times for

projects and increases the possibility of missing important issues in the planning analysis. As a result, two of the jurisdictions in the southern San Joaquin Valley have shifted the bulk of the CEQA analysis to the applicant. The impacts from the lack of funding are not just limited to staffing levels but include limited or no access to the information and tools needed for “Smart from the Start” planning—such as up to date advanced planning programs, robust mapping systems, and modern office technology and software.

### **Lack of Regional Coordination**

Within the five southern San Joaquin Counties there are 59 solar PV projects currently in the permitting process. These proposed projects, assuming all are approved and constructed, would encumber 23,118 acres. This is in addition to the 45 projects that have already been approved, encumbering 17,570 acres. This represents a substantial level of development and the conversion of these lands to a quasi-municipal/industrial use has the potential for significant cumulative impacts to farmland, wildlife, habitat lands, cultural resources, and the power transmission system. These potential impacts should be considered and addressed both at the local and regional level. Currently, development of renewable energy projects is being tracked by megawatts with little or no consideration of acreages or the environmental setting of the proposed projects. Planners, decision makers and the public cannot assess potential impacts without an understanding of the location, acreages and environmental characteristics of the proposed projects, individually and cumulatively.

Currently there is no comprehensive regional planning for renewable energy in the southern San Joaquin Valley. This results in a piecemeal approach to siting and impact analysis. The lack of regional planning for renewable energy also results in opportunistic siting of projects primarily based on location of existing transmission rather than a comprehensive, environmental resource based approach to planning for Smart from the Start renewable energy development.

### **Transmission Planning and Capacity**

Transmission planning is an on-going, constantly evolving activity in California and elsewhere. Transmission planning and capacity is a key area of interest to land use planners when considering renewable energy planning activities such as developing energy elements or combining districts/overlay zones. Planners need to know what is realistic to expect for transmission capacity as part of their land use planning for renewable energy development. Although there is a wealth of information on utility providers, state agencies and organizations, regional and national websites, it is not readily usable for local land use planners. Accessing the information, deciphering it, and reconciling it, is too cumbersome and time consuming for local land use planners.

One of the key site selection criteria for renewable energy projects is distance to transmission. Economically feasible access to transmission with sufficient capacity to carry the power generated by the project is one of the primary concerns of renewable energy developers. Renewable energy projects need access to transmission lines that either have sufficient capacity or can be cost effectively upgraded. Currently, transmission planning at the regional, state and national levels is largely based upon requests for connection by power generators. This results in a reactive planning approach, which does not foster Smart from the Start project siting of either power plants or transmission facilities.

### **Lack of Focus on Impaired or Degraded Lands**

Solar energy project developers generally seek sunny, reasonably flat land, which in the southern San Joaquin Valley is most often agricultural land. Currently the majority of solar PV projects in the southern San Joaquin Valley are located on farmland or grazing land. The selection of these lands for solar development creates a conflict between two of California's most vaunted public policies – farmland protection and renewable energy development. Locating renewable energy facilities on farmland designated by the CA Department of Conservation's (DOC) Farmland Mapping and Monitoring Program (FMMP) as Prime, Farmland of Statewide Importance or Unique Farmland creates significant policy conflicts and requires mitigation for loss of farmland. These can be time consuming and expensive issues for renewable energy developers. To reduce this conflict, renewable energy developers are being encouraged to seek land with low agricultural value due to chemical impairment, lack of water or physical degradation such as those within the Westlands Water District. Although these types of impaired or degraded lands are known within the agricultural community much of these lands have not been systematically mapped, which hampers planning efforts to direct renewable energy development to these locations.

Siting renewable energy projects on agricultural lands frequently involves Williamson Act<sup>1</sup> contracted lands. Currently, the majority of the solar PV projects proposed in the southern San Joaquin Valley are on Williamson Act contracted lands. The compatibility of solar energy projects with Williamson Act contracts has become an issue for project proponents, local government, the DOC, the California Farm Bureau Federation and

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<sup>1</sup> The Williamson Act was intended to provide the public benefit of assuring sufficient food supplies by protecting productive agricultural land and rangelands, discouraging discontinuous urban development patterns, and preserving open space. Over the years the Williamson Act has been strongly defended by both the agricultural and environmental communities as one of California's strongest tools for land preservation. However, California's financial troubles have imperiled the Williamson Act and its cornerstone subvention program has gone essentially unfunded the past several years. Counties with active Williamson Act programs rely on subvention funds to off-set the loss of property tax revenue from lands which are enrolled in Williamson Act contracts. The loss of subvention funding has undermined many Counties' financial planning and forced the Counties to consider termination of their participation in the Williamson Act. The loss of Williamson Act protection of agricultural lands would be a sharp blow to farmland preservation efforts in California.

some county farm bureaus. For the most part solar energy projects are seen as incompatible with Williamson Act contracts because utility scale energy development is not considered an agricultural use and cancellation of the contract would be required for a project to proceed. The DOC, which has oversight of Williamson Act, has prepared a white paper on solar power and the Williamson Act which provides an overview.<sup>2</sup> Cancellations may be accomplished under the public benefit provisions of Williamson Act, but the cancellation fees are costly and an issue of particular concern for the project proponents.

Wind energy projects have a higher potential of being compatible with Williamson Act contracted lands where ongoing grazing operations and other types of agriculture can more easily continue. Thus far no wind projects have been proposed in the southern San Joaquin Valley due to limited wind resources.

In an effort to address the issue of solar PV projects and Williamson Act contracts and to incentivize siting on impaired lands, the recently enacted Senate Bill 618 (Wolk) provides a solar PV-specific tool for the interim management of Williamson Act contracts by allowing a Williamson Act contract on marginally productive, or physically impaired lands to be rescinded and a "solar-use easement" to be simultaneously entered into requiring that the land be used for solar photovoltaic facilities for a term no less than 20 years. This approach will potentially avoid the controversy of cancelling Williamson Act contracts and imposing expensive cancellation fees, provided the solar-use easement was not prematurely cancelled.

There are also some instances where the cancellation of a Williamson Act contract on low value, impaired agricultural land in favor of renewable energy development would potentially further public policy. Such could be the case with siting renewable energy projects on severely impaired lands within the Westlands Water District that have been, or are slated to be, retired. In instances such as Westlands, the Secretary of the California Department of Natural Resources has the latitude to waive the payment of cancellation fees.

The cancellation of Williamson Act contracts for renewable energy projects remains controversial. In October 2011, the California Farm Bureau Federation filed suit against the Fresno County Board of Supervisors over the cancellation of a Williamson Act contract on Prime Farmland to facilitate the development of a 90.5 acre, 20 mw solar PV project.

As an alternative to agricultural lands, brownfields and closed sanitary landfills are potential source of sites for renewable energy facilities. According to the US Environmental Protection Agency's (EPA) 2009 Re-Power America's Lands project, there are at least 215 sites encompassing 1,707,829 acres in California that would be

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<sup>2</sup> <http://www.conservation.ca.gov/dlrp/lca/Documents/DOCSolarWhitePaper%203%2011%2011.pdf>

appropriate for solar PV projects; 139 of those sites are greater than 100 acres. As a result of emerging technologies for anchoring and constructing projects, these potential sites are only recently being considered for renewable energy development. The EPA and the National Renewable Energy Lab are currently collaborating on a study to assess the potential solar power generation on the 160 acre Crazy Horse sanitary landfill site in Monterey County.

### **Inadequate Environmental Review/Analysis and Permitting**

Environmental analysis and documentation can be a time consuming, expensive and complicated part of the entitlement process for any development project. CEQA compliance and the need to control and minimize the costs of legally required mitigation of identified significant impacts often drive development project siting and design.

Within the southern San Joaquin Valley the five counties have varying approaches to CEQA compliance for renewable energy projects. Kings and Tulare counties allow the project proponents to prepare draft IS/MNDs for the county staff's review and consideration. Fresno is preparing IS/MNDs in-house for the majority of the solar PV projects, but will be utilizing a consultant to prepare an EIR for the proposed 3,575 acre Tranquility Project. Kern County is requiring EIRs for renewable energy projects and the other four counties are relying on IS/MNDs for the majority of renewable energy projects in their jurisdiction. Given the nearly 40,689 acres of renewable energy projects either recently approved or currently proposed in the southern San Joaquin Valley, Kern County has taken the stance that the potential for significant cumulative impacts must be addressed and is requiring the preparation of EIRs for commercial or utility scale renewable energy projects. This varied approach to CEQA compliance by the counties creates an inconsistent permitting environment for renewable energy projects in the region. This hampers the ability to establish consistent and reliable "Smart from the Start" renewable energy siting standards.

Defenders' review of solar PV projects proposed and recently approved in the five southern San Joaquin counties has identified that some projects are not being processed by the local jurisdictions in compliance with regulatory requirements. Issues include:

- Insufficient, deferred or no biological studies of project sites
- Failure to analyze the project as a whole including ancillary facilities such as transmission lines, roads and substations
- Failure to require standard mitigation promulgated by the California Department of Fish and Game (DFG) and the US Fish and Wildlife Service (FWS) for special status species such as San Joaquin kit fox, burrowing owl, Swainson's hawk, blunt nosed leopard lizard.
- Failure to circulate CEQA documents through the State Clearinghouse as required by Sections 15205 and 15206 of the CEQA Guidelines

- Failure to circulate CEQA documents for at least 30 days of public review as required by Sections 15205 and 15206 of the CEQA Guidelines
- Inadequate or nonexistent cumulative impact analysis
- Separate processing of related projects resulting in piecemealed CEQA review
- Failure to adopt mitigation monitoring/reporting programs as required by CA Public Resource Code 21081.6

These procedural issues are substantive and expose the proposed solar projects to significant risk of challenge. Attorneys representing the union group CURE were at a recent Planning Commission hearing and had substantive challenges to a proposed IS/MND for a solar PV project. The procedural issues are placing solar PV projects in unnecessary potential jeopardy and are undermining the counties' own desires for agricultural vitality and economic development as well as the State's goals for renewable energy development. Solar developers have expressed frustration with the resulting risks as well as the potential delays and expense their projects can face as result of these procedural issues.

Conflicting and/or unpredictable requirements and an apparent lack of coordination between wildlife agencies frustrate both planners at the local jurisdictions and renewable energy developers. The state and federal wildlife agencies appear to be working independently of each other, with sometimes conflicting comments and recommendations to local agencies as part of their public trust responsibilities. Further, there is little to no coordination between state and federal wildlife agencies for endangered species permitting under the state and federal endangered species act. Additionally, there is no effort to coordinate mitigation.

The current approach of project-by-project mitigation in the five counties has resulted in a piecemeal and inefficient process for assessing and carrying out mitigation, and fails to make the best use of mitigation resources to provide more comprehensive, coordinated benefits for affected species and their habitat.

Finally, the FWS does not appear to be utilizing an important tool for faster and more efficient permitting under Section 10 of the Endangered Species Act – the use of “low effect” habitat conservation plans (HCPs) for projects sited on low value/low impact lands. “Low effect” HCPs are designed for use with low-impact projects and are intended to result in HCPs in a matter of months instead of years.

All of the counties have expressed interest in developing programmatic plans to guide renewable energy development. These plans could include Energy Elements to a county's General Plan, specific plans, renewable energy districts or HCPs or natural community conservation plans. Such plans could incentivize siting renewable energy projects on marginally productive or physically impaired lands that have low habitat values by providing clear guidelines for acceptable project location and design. AB x1 13 (Perez) establishes a grant program for such planning activities. Under AB x1 13 the CEC

would “...provide up to seven million dollars (\$7,000,000) in grants to qualified counties for the development or revision of rules and policies, including, but not limited to, general plan elements, zoning ordinances, and a natural community conservation plan as a plan participant, that facilitate the development of eligible renewable energy resources, and their associated electric transmission facilities, and the processing of permits for eligible renewable energy resources.”

The preparation and adoption of one of these documents would require compliance with CEQA and most likely the preparation of a Programmatic EIR. The adoption of a Programmatic EIR would potentially streamline and minimize future CEQA compliance within the area of the renewable energy plan. While this approach would provide benefit to project proponents, Kern County has expressed legitimate concern about bearing the cost of any legal challenges to these types of programmatic plans and associated CEQA documents. The California Energy Commission (CEC) has been preparing to launch a Renewable Planning and Permitting Program (RP3), which would provide grant funding and technical support to local government for renewable energy planning that could potentially relieve some of this concern. However, funding for the RP3 program has yet to be appropriated.

## **Recommendations**

The following sections provide specific recommendations for policy, implementation actions and procedures to address the lack of planning capacity and tools, needed regional coordination, necessary transmission planning and capacity, prioritization of impaired or degraded lands and inconsistent environmental review/analysis and permitting, which hinder Smart from the Start renewable energy planning, siting and permitting.

## **Address a Lack of Planning Capacity and Tools**

### **Renewable Energy Clearinghouse**

Establishment of a renewable energy clearinghouse would provide land use planning guidance and technical support to local governments including:

- training and technical support for planners and decision makers
- model planning and permitting documents for renewable energy projects
- best management practices for siting renewable energy projects
- approaches to permitting and implementing renewable energy projects
- standardized permitting protocols for renewable energy projects
- standardized impact analysis and mitigation methodology
- tracking of renewable energy projects and related transmission upgrades by acreage, environmental setting and potential project impacts

The Governor's Office of Planning and Research (OPR) already provides planning and CEQA guidance to local government and is a natural choice to provide this type of support for renewable energy projects. This approach would be complementary to the provisions of AB x1 13 and CEC's planned RP3 program, which would provide grant funding for renewable energy planning efforts and be a source for energy development specific technical support to supplement OPR's land use planning expertise.

Utility scale renewable energy projects present new policy, planning and permitting, procedural and implementation challenges for local government. Currently, renewable energy projects are tracked by the CEC with an emphasis on energy production. The land use and environmental aspects such as acreage, environmental setting and potential project impacts are not being symmetrically tracked, which undermines comprehensive planning to balance energy development and environmental protection. The OPR Renewable Energy Clearinghouse should track proposed renewable energy projects being processed by local jurisdictions, the CEC, the California Public Utilities Commission (CPUC) and Federal agencies. Information gathered would include project locations, acreages, and environmental characteristics including agricultural, biological, cultural and hydrological resources. Project tracking would include mapping of proposed project sites and their environmental setting.

Legislation similar to that which established the CEQA Clearinghouse at OPR could be utilized to create the OPR Renewable Energy Clearinghouse, providing organizational stability over time.

### **Combining/Overlay Districts**

The establishment of combining or overlay districts can be used to codify those areas identified as suitable for renewable energy development through the development of energysheds, adoption of energy elements to general plans or other planning actions. Combining or overlay districts can be used to provide renewable energy specific development standards when combined or overlaid with base zoning districts in a jurisdiction. Implementation of combining or overlay districts can streamline and incentivize siting renewable energy projects in lower impact areas. Areas of high value habitat and agricultural lands should be excluded from renewable energy combining districts to disincentivize renewable energy development of those lands. The adoption of combining or overlay districts would be subject to CEQA. Preparation and adoption of a programmatic EIR for the combining or overlay districts would provide additional streamlining for individual projects that could "tier" off of the adopted programmatic EIR. This approach would also provide a venue for addressing cumulative impacts. Currently there are over 40,689 acres proposed and permitted for solar PV in the southern San Joaquin Valley. The cumulative impact of this substantial conversion of land to renewable energy development represents a significant legal vulnerability under CEQA. The use of combining or overlay districts would provide a tool for addressing cumulative impacts.



Funding local jurisdictions to undertake the development and adoption of renewable energy combining or overlay districts and the required CEQA documents could be provided via either a planning grant program or through the provisions of AB x1 13 (Perez).

### **Standardized Requirements**

Clearly defined renewable energy project site selection criteria and development standards provide certainty and can be used to incentivize Smart from the Start project site selection. Smart from the Start criteria would direct renewable energy projects to lands that have been developed or disturbed, where agricultural productive capacity is low or has been chemically impaired, where there is low value for wildlife, and where there would be minimal impacts to cultural or archaeological resources. A renewable energy project's design and operation should utilize technology appropriate for the site, such as low water requirements in desert locations. Projects should be located near existing or planned transmission facilities that would have sufficient capacity to minimize the need for additional transmission lines.

Development standards and criteria for Smart from the Start siting should be included in regulatory codes adopted by local jurisdictions for renewable energy projects. A tiered permitting approach should be implemented that provides for streamlined, legally minimal permitting for well-sited, low impact renewable energy projects and requires more intensive review and permitting for those projects that do not meet the criteria for a lower impact project. For example, a well-sited, low impact renewable energy project could be approved at the zoning administrator level with a minor conditional use permit and a simple initial study/mitigated negative declaration. Whereas a poorly sited or designed project that would impact high value resources would require a major conditional use permit with an EIR and be heard by the planning commission. This would provide an incentive to both renewable energy project developers and financiers to focus on Smart from the Start project sites.

### **Model Approaches**

Development and implementation of model approaches to renewable energy siting and permitting can help build a local jurisdiction's capacity for reviewing and permitting renewable energy projects in a sustainable, cost effective manner resulting in high quality, Smart from the Start outcomes. OPR is well positioned to take a leadership role in providing this type of land use planning guidance to local government with the technical support of the CEC, the DOC's Division of Land Resource Protection, the DFG, and the FWS. Access to model documents such as general plan energy elements, zoning ordinances to govern the various types of renewable energy projects, and standardized baseline conditions of approval for the various types of renewable energy projects would enhance the capacity of local jurisdictions to effectively and efficiently

develop their own local requirements without having to “reinvent the wheel.” These model documents would convey the best practices for renewable energy siting and permitting and should be updated as needed to address advancing technologies and real world experiences. The California County Planning Director’s Association has developed a Solar Energy Facility Permit Streamlining Guide for siting criteria and permitting standards. The Permit Streamlining Guide and accompanying model documents were adopted by the Association in February 2012.<sup>3</sup> The Guide and model ordinance, renewable energy combining zone language and supporting documents will meet some of these needs. The model ordinance only addresses solar PV projects of fewer than 20 acres, which limits its utility but the Guide document addresses projects greater than 20 acres. Additionally, resources such as Oregon’s Model Ordinance for Energy Projects should be utilized in the development of these documents.<sup>4</sup>

## **Provide Regional Coordination**

### **Energysshed Planning**

Each of the local governments within the southern San Joaquin Valley are processing and permitting the projects with varying approaches to CEQA, project review, conditional use permits and regulatory requirements. The lack of inter-jurisdictional coordination results in a compartmentalized approach to renewable energy planning that does not provide adequate holistic Smart from the Start siting guidance to project proponents, the environmental community, and decision makers. Comprehensive regional planning is needed to identify those locations that are most appropriate for renewable energy development based upon energy resources, biological resources, agricultural lands, cultural resources and land use. Mapping of these resources must be done to identify those areas that would provide minimal impacts to high value habitat, agricultural lands, cultural resources and those land uses which are suitable for renewable energy development.

Based upon this regional planning effort, “energysheds” should be identified that have the highest potential for effective Smart from the Start renewable energy development. Energysheds, some of which would likely be multijurisdictional, would provide a resource based geographic foundation for interagency coordination, programmatic planning and streamlined permitting.

This type of regional planning is urgently needed and should be implemented as soon as practicable. OPR, as an established technical resource for planning, would be an appropriate agency to take the lead and coordinate these planning efforts.

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<sup>3</sup> <http://www.ccpda.org/en/model-sef-ordinance/145-ccpda-solar-energy-facility-permit-guidelines-approved-2012-02-03>

<sup>4</sup> <http://www.oregon.gov/ENERGY/SITING/local.shtml>

Building upon the identification of energysheds, local planning jurisdictions, particularly the counties, should either develop and adopt energy elements to their general plans or update their existing energy elements. The energy elements should provide goals, policies and implementation strategies to foster Smart from the Start renewable energy siting. Local government typically has limited funding to undertake comprehensive planning projects such as voluntary general plan elements. AB x1 13 (Perez) establishes a grant program for such planning activities, which could be channeled through CEC's planned RP3 program.

## **Improve Transmission Planning and Capacity**

### **Transmission Planning**

Currently, transmission planning at the regional, state and national levels is largely based upon requests for connection by power generators. This results in a reactive planning approach that does not foster Smart from the Start project siting of either power plants or transmission facilities. Regional coordination should be established and maintained between the various transmission Balancing Authorities to avoid duplicative planning processes and infrastructure. Moving forward, both power plant siting and transmission planning should be policy based to better incorporate environmental considerations. Rather than siting renewable energy facilities based upon where the transmission is located or is planned to be located, transmission should be planned and sited based upon where identified renewable energysheds have been designated which have the highest potential for Smart from the Start renewable energy development. Ensuring that transmission will be available would further incentivize renewable energy development to occur within these designated energysheds.

Within the southern San Joaquin Valley further consideration and prioritization of needed transmission and capacity upgrades, such as the Midway-Gregg line should be prioritized by the California Independent System Operator (ISO). Implementation of projects such as the Midway-Gregg line would facilitate development of large scale, Smart from the Start projects such as Westlands Solar Park.

### **Transmission Capacity Reporting**

A centralized transmission capacity and planning reporting portal is needed for land use planners and local government. This would allow the planners and local government to better plan for renewable energy development areas that would more efficiently integrate into the overall transmission system. At the same time it would provide a venue for local government to proactively provide early warning about sensitive resources to transmission planners. The ISO would be a potential host for the portal. The ISO also has an on-going transmission planning training program that could be expanded, in partnership with the CEC and California Public Utilities Commission, with a module for land use planners.

## Focus on Impaired and Degraded Lands

### Degraded Lands

Degraded lands include brownfields, closed and capped landfills, Superfund sites, Resource Recovery and Conservation Act (RCRA), and abandoned or closed mine lands. Farmland in and of itself is not considered degraded land unless there are other extenuating issues such as chemical impairment. Degraded lands are another potential location for siting renewable energy without impacting high value farmland and habitat lands. According to the EPA's 2009 Re-Power America's Lands map for California<sup>5</sup> there are 22 sites within the valley area of the five southern San Joaquin Valley counties suitable for solar PV development. These types of sites are often flat, located near transmission and do not support environmentally sensitive resources. Emerging design technologies are opening opportunities to site renewable energy projects on these sites. The potential for reuse of these sites for renewable energy development should be addressed in local jurisdiction's energy planning efforts and streamlined land use permitting provided to incentivize the reuse of these types of sites.

### Impaired Lands

Agricultural lands have been perceived by many to be an appropriate place to site renewable energy projects due to their disturbed nature and potentially lower biotic values. However, farm and rangelands provide important public benefits that must be both balanced and protected in considering renewable energy development. Clear, regionally appropriate criteria are needed to identify those lands that can host renewable energy development without impacting high value agricultural and habitat lands. The criteria must be structured to identify those lands that have limited habitat and agricultural value or whose value is impaired by chemical degradation or regulatory action such as the loss of irrigation water. At the same time the criteria must guard against the strategic or artificial degradation or fallowing of land to make it available for development.

Quantifiable analysis such as that provided by Land Evaluation and Site Assessment (LESA) models should be employed to assist planners and decision makers in understanding the agricultural productive capacity of a particular project site, transmission alignment or while establishing renewable energy combining district/overlay zones. In areas with unique constraints such as the Westlands Water District consideration should be given to developing an area specific LESA model to further refine the analysis.

Williamson Act contracts and cancellation fees have been cited, at times, to be a limiting factor for siting renewable energy development on agricultural lands that would

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<sup>5</sup> ([http://www.epa.gov/renewableenergyland/maps/pdfs/pv\\_utility\\_ca.pdf](http://www.epa.gov/renewableenergyland/maps/pdfs/pv_utility_ca.pdf))

otherwise be appropriate. In an effort to address this issue, the recently enacted Senate Bill 618 (Wolk) provides a solar PV-specific tool for the interim management of Williamson Act contracts by allowing a Williamson Act contract on marginally productive, or physically impaired, or disturbed lands to be rescinded and a “solar-use easement” to be simultaneously entered into requiring that the land be used for solar photovoltaic facilities for a term no less than 20 years. This approach is intended to provide an alternative to the controversy of cancelling Williamson Act contracts and imposing expensive cancellation fees, provided the solar-use easement was not prematurely cancelled.

## **Improve Environmental Review/Analysis and Permitting**

### **Address Procedural Environmental Review and Permitting Errors**

Substantive environmental review and permitting errors have been observed on some of the solar PV projects proposed in the southern San Joaquin Valley. These errors could jeopardize otherwise viable projects and undermine the State’s renewable energy goals and well as the region’s desires for economic development. Additional planning and CEQA process education outreach and support is needed to assist local government with CEQA compliance and defensible permitting practices. This is another area in which the OPR in its capacity as a renewable energy clearinghouse could provide the needed training and resources. In some instances additional oversight by the California Attorney General’s office may also be beneficial.

Consistent and defensible approaches to impact analysis and mitigation are also needed. Baseline information on a proposed project site’s biological resources and agricultural productive capacity must be required for any land use entitlement application to be “deemed complete” for project sites located on farmland, grazing land or open space. At a minimum, threshold biological studies and site specific soil resource reports such as those available from the Natural Resource Conservation Service’s website should be a standard requirement.

Finally, cumulative impacts must be consistently considered and addressed for renewable energy and related transmission projects proposed in areas without a renewable energy general plan element or combining district/overlay zone.

### **Permitting and Mitigation for Wildlife and Habitat Impacts**

While renewable energy at utility scale provides benefits for forestalling climate change impacts to species and habitat, utility scale renewable energy projects can be unnecessarily complicated due to a failure to use already existing tools for more efficient permitting and a failure to provide a more defined and coordinated approach to permitting and mitigation.

State and federal wildlife agencies should work to coordinate comments to local agencies as part of their public trust responsibilities and also should be coordinating between themselves for endangered species permitting under the state and federal endangered species act. For example, wildlife agencies should be coordinating comments to project proponents and counties on what public trust resources may be impacted by the proposed project.

In addition, wildlife agencies and local agencies should be coordinating mitigation. The U.S. Fish and Wildlife Service, California Department of Fish and Game and local agencies should develop a regional strategic mitigation process founded on habitat conservation planning principles that generates more robust and effective mitigation than can be achieved on a project-by-project basis. This effort can be informed by endangered species recovery plans and other long-term land and wildlife conservation plans. Strategic mitigation planning must address the following:

- Incorporation of biodiversity sustainability/viability indicators
- Designation of regions, based on biological integrity and ecosystem functions
- Designation of target mitigation acquisition lands and public land actions within each region that will maximize habitat, maintain and protect migration corridors, and maximize species survival and recovery.
- Allocation of pooled mitigation funds and activities for larger scale land acquisitions of designated property and mitigation measures.
- Long term stewardship and funding of stewardship of mitigation lands
- Mechanisms to ensure mitigation investments are enduring and mitigation investment decisions are science-based.

Mitigation measures should be formulated as a comprehensive package, in which all jurisdictional agencies coordinate their requirements and review, and in which other state, federal, local resource agencies and nongovernmental organizations with relevant expertise and information are consulted to the maximum extent possible. The comprehensive package for any individual project should, to the maximum extent possible, contribute along with measures taken for other projects to provide coordinated and increased benefits to impacted species, habitat and corridors. Federal and state agencies should also consult with local land agencies, land trusts, and other local experts.

Compensatory mitigation needs to be implemented reliably, effectively and cost efficiently. Local and regional qualified conservation organizations such as land trusts who focus on the acquisition, establishment, management and holding of conservation lands are an important resource for implementing mitigation and should be consulted with early in the planning and permitting process for renewable energy projects. Compensatory mitigation should, where practicable, expand and enhance existing conservation lands.

Finally, as part of the effort to issue faster endangered species permits, the U.S. Fish and Wildlife Service should be working at providing guidance to renewable energy companies regarding when these companies would be allowed to use “low effect” habitat conservation plans, which are intended to be a faster, easier process – months instead of years -- for getting a federal endangered species permit. If renewable energy companies are siting their projects on impaired and degraded lands, there should either be no need for an endangered species permit or the impact should be so minimal as to easily fit into a “low effect” category.

## **Conclusion**

The rapid advancement of renewable energy development, public policy initiatives in this year’s proposed legislation and fledgling local land use policies for protection of prime farmland and valuable habitat lands provides a unique opportunity for implementation of Smart from the Start renewable energy siting policies. Funding and implementation of a comprehensive approach to address the lack of planning capacity and tools, needed regional coordination, necessary transmission planning and capacity, prioritization of impaired or degraded lands and inadequate environmental review/analysis and permitting will foster significant advances creating Smart from the Start renewable energy development.

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