January 22, 2016

Ms. Jennifer L. Lewis
Bureau of Reclamation
South Central California Office
1243 N Street
Fresno, CA 93721

Subject: Comments on San Luis Renewable Solar Project Draft EA & FONSI 14-059
SAN LUIS RESERVOIR STATE RECREATION AREA

Dear Ms. Lewis:

This letter is written in response to the Draft Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) to the public for the San Luis Renewables Solar Project.

I am writing to you in regards to the proposed San Luis Solar Project. As you know, Reclamation solicited solar developers to build solar projects on Reclamation lands near San Luis Reservoir. This was done in part to support Reclamations mandate to develop renewable energy on Federal Lands but also to support the San Luis Transmission Project. The Authority has been working diligently with Reclamation and Western on this project and the schedule to complete the EIS/EIR is near with date of March 31, 2016. The accomplishment of this project supports Reclamation's ability to get its power delivered to its pumps, a critical part of the CVP purpose, without paying millions of dollars per year to the CAISO for wheeling starting in April, 2016.

SLDMWA-1

The Authority supports the content and conclusions of the draft EA draft FONSI for the San Luis Solar Project. The sites to be developed are all previously disturbed land without conflict with agricultural operations. These opportunities to meet renewable policy objectives of the Governor and the Secretary of the Interior are rare and should be approved. Fencing, vegetation and setbacks mitigate impacts to recreation in nearby areas and no damage to existing facilities will occur.

The Authority encourages Reclamation to approve the final EA and FONSI with whatever minor adjustments it determines are needed in response to comments, but to stay the course and proceed as soon as possible with moving this project forward.

Thanks you,

Frances Mizuno

**Response to San Luis and Delta-Mendota Water Authority, January 22, 2016**

**SLDMWA-1** The comment is supportive of the content and conclusions of the draft EA and draft FONSI related to the San Luis Project and suggests that Reclamation move forward with approval of the FONSI and EA.

The comment is noted. As the comment does not raise specific issues or concerns related to the environmental analysis presented in EA-14-059, no changes have been made to the EA and no further response is required.

Audubon CALIFORNIA

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January 15, 2016

Jennifer L. Lewis
Bureau of Reclamation
1243 N Street
Fresno, CA 93721
Email: jllewis@usbr.gov

RE: Comments on Draft Environmental Assessment and Finding of No Significant Impact for the San Luis Solar Project (EA-14-059)

Dear Ms. Lewis:

Audubon California, the state division of the National Audubon Society, writes to express concern about the Draft Environmental Assessment ("DEA") and Finding of No Significant Impact ("FONSI") for the San Luis Solar Project ("the Project") and to join in and support the comments provided by the Grassland Water District and Grassland Resources Conservation District ("GWD") that were submitted on January 15, 2016. Like GWD, Audubon asserts that the DEA's analysis is deeply flawed, a FONSI is inappropriate, and a full Environmental Impact State ("EIS") should be prepared.

Audubon-1

Audubon represents tens of thousands of members in California, including members that live and use areas near the Project site for conservation and recreational activities. Our members are concerned about the conservation of birds and other wildlife and responsible development of renewable energy. Audubon California has long worked to improve renewable energy projects to ensure that they avoid and minimize impacts to native plants and wildlife to the fullest extent practicable. We are currently engaged in the Brown Administration's working group to best site solar projects in the Central Valley. While we strongly support the development of renewable energy sources, we know that new projects can be designed to avoid undue impacts on local wildlife and plants.

There is a growing body of literature reporting the significant environmental impacts arising from solar facilities. A recent report from the National Fish and Wildlife Forensics Laboratory found:

> In summary, three main causes of avian mortality were identified at [the studied] facilities: impact trauma, solar flux, and predation. Birds at all three types of solar plants were susceptible to impact trauma and predators. Predation was documented mostly at the photovoltaic site, and in many cases appeared to be associated with stranding or nonfatal impact trauma with the panels, leaving birds vulnerable to resident predators.
> …
> Our findings demonstrate that a broad ecological variety of birds are vulnerable to morbidity and mortality at solar facilities, though seem differential mortality trends were evident, such as waterbirds at Desert Sunlight, where open water sources were present….[1]

Audubon-2

While the DEA briefly discusses and dismisses collision risks, it does not discuss the predation effects in any substantive way. As GWD notes in its comments, this project poses particular risks because it is so close to a waterbird haven that provides habitat for hundreds of thousands of birds every year. The solar panels and nigh-

[1] Kagan et al. (2014) *Avian Mortality at Solar Energy Facilities in Southern California: A Preliminary Analysis*. National Fish and Wildlife Forensics Laboratory, 2014 (attached hereto and available at http://alternativeenergy.procon.org/sourcefiles/avian-mortality-solar-energy-ivanpah-apr-2014.pdf)

time lighting associated with the Project will create new and substantial risks of injury and mortality for migratory birds that already suffered from the ecological impacts of reduced habitat and food availability, drought, and the natural stresses of long range migration.

Audubon-2 cont.

The DEA's statement that "[t]he presence of San Luis Reservoir, O'Neill Forebay, canals, ditches, and other water conveyance systems in the Project vicinity are also expected to reduce the potential for lake effect impacts from the solar PV panels" is presented without supporting evidence. Audubon, like GWD believes that the presence of attractive habitat sites near the Project Area makes it more likely, rather than less likely, to attract more birds to the site and to create risks of collisions for birds. The DEA's conclusion should be reconsidered using all available information and unsupported assumptions should be excised from the DEA.

In addition to these general concerns, Audubon has the following specific comments on the DEA:

Audubon-3

- BIO-6 should be amended to reflect that the typical breeding season for both the Loggerhead Shrike, Grasshopper Sparrow, and Tricolored Blackbird may start as early as March 1 of each year. Also, the DEA or EIS should acknowledge that the Tricolored Blackbird has been designated as a species that "may be warranted" for protection under the California Endangered Species Act ("CESA") and, as such, receives full protection under the CESA during the one-year review process (set to expire in December 2016).

Audubon-4

- BIO-7 is inadequate and is not supported by scientific findings or other evidence. Specifically, BIO-7 states that a 50 to 100-foot buffer will suffice to avoid disturbance of the enumerated bird species, but it does not provide the foundation for this conclusion. Audubon notes that in its recent guidance on harvest of grain fields adjacent to active Tricolored Blackbird colonies, the California Department of Fish and Wildlife established a minimum buffer of 100 feet is required around Tricolored Blackbird colonies. BIO-7 must be revised to include buffers based on the best available information and, in their absence, set a minimum 100-foot buffer around active nests.

Audubon-5

- The DEA's cumulative impacts analysis is also flawed. First, it relies on assumptions about the risks created by the "lake effect" discussed above. Second, while the DEA provides a list of other projects, it provides no apparent analysis of the individual impacts from those projects and how they may, when considered cumulatively with the Project, result in a significant impact to the wildlife and plants in the region.

Audubon-6

Lastly, Audubon strongly agrees with GWD that the Project requires an Avian Protection Plan ("APP") that includes adaptive management. Large-scale renewable projects are intended to have project-lives that span decades and often result in impacts that are not predicted during project planning. An APP that incorporates adaptive management is necessary to avoid unintended and unforeseen impacts to birds, especially given the high-quality and sensitive habitat of the GWD complex.

Thank you for consideration of our comments. To discuss these matters further, please do not hesitate to contact me at mlynes@audubon.org or (415) 505-9743.

Respectfully submitted,

Michael Lynes
Director of Public Policy, Audubon California

**Response to Audubon California Letter, January 15, 2016**

**Audubon-1** The comment supports comments made by the Grassland Water District and Grassland Resources Conservation District and "asserts that the DEA's [Draft Environmental Analysis] analysis is deeply flawed, a FONSI [Finding of No Significant Impacts] is inappropriate, and a full Environmental Impact State ("EIS") should be prepared.

See Response to GWD-2.

**Audubon-2** The comment states that the "DEA briefly discusses and dismisses collision risks, it does not discuss predation effects in any substantive way" and that the "project poses particular risks because it is so close to a waterbird haven that provides habitat for hundreds of thousands of birds every year." The comment also asserts that the solar panels and nighttime lighting will "create new and substantial risks of injury and mortality for migratory birds."

It should be noted that the referenced report (Kagan et al. 2014) was reviewed during preparation of Environmental Assessment (EA)-14-059. Regarding potential predation, Kagan et al. (2014) assessed 61 bird carcasses collected primarily by energy company staff at the Desert Sunlight PV facility, a 550 MW solar farm in Riverside County, over an unspecified length of time. Avian mortality at the other two facilities studied in Kagan et al. is not discussed further because those facilities use different solar technologies than the proposed San Luis Solar Project (a solar trough system at Genesis Solar Energy Project, and a solar power tower system at Ivanpah Solar Electric Generating System). The San Luis Solar Project would be substantially smaller than the Desert Sunlight facility evaluated in the Kagan study (26 MW versus 550 MW.)

In the report, 19 bird fatalities were associated with impact trauma, and 15 were associated with predation at the Desert Sunlight PV facility. Twenty-seven other birds were categorized as either exhibiting no evident cause of death or undetermined cause of death due to the poor condition of the remains. The report found that predation was documented mostly at the Desert Sunlight PV facility and could not make a distinction between stranded/nonfatal impact traumas or as a result of the skill set of the predators.

As noted above, the reviewed report did not list the time periods in which the carcasses were collected. Therefore, it is difficult to make a definitive correlation as to how many birds per a given period of time died. The lack of this data also makes it difficult to make a relative evaluation of bird mortality when compared to other bird strike assessments such as those conducted under the auspices of the Federal Aviation Administration.

It should be further noted that all the facilities from which carcasses were collected exist in desert environments, which are essentially devoid of large water

sources. When the birds observe solar panels in a desert from a distance it is suspected to unduly influence the impact incidents due to the "lake effect" where birds are purported to gather or attempt to land in or on the manmade structures.

To date, no empirical research has been conducted to evaluate the attraction of solar PV facilities to migrating birds (Multiagency Avian-Solar Collaborative Working Group 2016). There is no data to suggest that birds preferentially are attracted to solar PV panels instead of actual water features. As a result, we have determined that the Project's solar PV panels would contribute minimally to potential "lake effects" and resulting impacts to birds. The Project is not in a desert environment, and the presence of San Luis Reservoir, O'Neill Forebay, canals, ditches, and other water conveyance systems in the Project vicinity are also expected to reduce the potential for "lake effect" impacts from the solar PV panels.

Refer to response DFW-20 regarding nighttime lighting.

**Audubon-3** Comment suggests that BIO-6 be "amended to reflect that the typical breeding season for both the Loggerhead Shrike, Grasshopper Sparrow, and Tricolored Blackbird may start as early as March 1 of each year."

Protection Measure BIO-6 has been revised to include this information. Information has been added regarding the State-listing status of the Tricolored Blackbird to Section 3.4.1.2.

**Audubon-4** Comment suggests that Protection Measure BIO-7 be revised "to include buffers based on the best available information and, in their absence, set a <u>minimum</u> 100-foot buffer around active nests."

Reclamation has revised Protection Measure BIO-7 in Table 6 of EA-14-059 to require a 100-foot buffer.

**Audubon-5** The comment states that the cumulative impacts analysis is flawed as it "relies on assumptions about the risks created by the "lake effect" and that although the EA lists project it "provides no apparent analysis of the individual impacts from those projects and how they may, when considered cumulatively with the Project, result in a significant impact to the wildlife and plants in the region."

Section 3.4.2.3 has been revised to include additional discussion of potential cumulative effects to biological resources.

**Audubon-6** Audubon "strongly agrees with GWD that the Project requires an Avian Protection Plan".

See Response to GWD-2, Mitigation Measure BIO-5 has been revised to include an Avian Protection Plan.

**California State Park Rangers Association**
*Promoting Professionalism In California State Parks since 1964*

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January 13, 2015



US Bureau of Reclamation
1243 N Street, Fresno, CA
ATTN: Jennifer L. Lewis
jllewis@usbr.gov

RE: Solar Array Proposal; San Luis Reservoir, O'Neill Forebay

Dear Ms. Lewis,

We have reviewed the US Bureau of Reclamation (USBR) Draft Environmental Assessment and Finding of No Significant Impact, dated December 14, 2015, for the San Luis Solar Project, and have serious concerns.

Some 38 years before the US Bureau of Reclamation was established, President Abraham Lincoln set aside land in California as the Nation's first state park in the Yosemite Valley. This first parkland designation in the US was the beginning of a nationwide effort, based on preservation of our natural resources, while providing access to park visitors. The State has enjoyed a 150-year tradition of cooperation with the federal government in such public land management.

CSPRA-1

We understand that the State and USBR have an existing 50-year agreement at San Luis Reservoir State Recreation Area, which allows for the maintenance and operation of public recreation, including expansion of shoreline camping and picnic use around the Medeiros Use Area and O'Neill Forebay. However, the USBR proposed construction of a solar array facility close to the Forebay shoreline, complete with perimeter security, eliminates the planned expansion (Exhibit A).

CSPRA-2

While the project preferred alternative does not appear to impact Biological Resources, it certainly seems to work against the terms of that agreement for recreation, and deprives users of future recreation expansion. Impacts from the development on recreation and public use are not adequately addressed in the Findings. It is impossible to see how USBR project evaluations, which ignore the planned recreational development (see Exhibit B), could result in a finding of no significant impact. USBR's own Mission Statement recognizes the importance of public use, and says the agency, ". . . has gravitated from development of single-purpose agricultural projects toward a multipurpose approach to water resource development that includes recreation."

On page 9 of that findings report, it clearly states,

> *"There are past, present, and future projects that have the potential to contribute to cumulative effects to recreation, and they include . . . solar energy projects . . . Combined, these projects, could all generally impact recreation. Yet, design measures and avoidance/minimization measures have been incorporated into these projects to reduce potential effects to minor levels, and would not cumulatively result in significant effects."*

CSPRA-2 cont.

How can USBR consider a development proposal which is in direct conflict with existing agency agreements, policy, mission statement and studies, without consideration and review of those conflicts or proposing alternatives? Elimination of a potential recreational resource (see Exhibit C) cannot be described as having no significant impact, especially when there are viable alternatives proposed by State Parks and available for the project. The State Park's proposal to move the development 100 yards inland, still allows the project to move ahead at the same scale, just with a different boundary. The original operating agreement even states that consideration will be given to recreation, prior to leases for oil, gas and other minerals, and that no lease or use permit will interfere with the operation of the State Recreation Area. We see considerable interference!

CSPRA-3

We also understand that State Parks and USBR completed a Resource Management Plan which complements the State's General Plan, in 2013. The current proposal violates the basic tenets of those 2013 agreements, and calls for future public recreational use and camping, and would allow scenic corridors, and park viewsheds to remain uninterrupted.

Apparently USBR wants to reserve a borrow soil area for future dam seismic retrofit adjacent to the proposed recreation expansion, and restrict use of that borrow area from solar array development. Your agency has multiple and competing proposals for the same geography. You must consider all reasonable alternatives to allow competing uses; approved recreation expansion, recently proposed solar development and proposed future borrow pit.

CSPRA-4

We understand that ongoing high-level discussions between State Parks and USBR were under way late last year to find a satisfactory solution. The declarations and findings of no significant impact, as released by a separate division of USBR, undermines those good-faith negotiations.

We urge competing divisions within the US Bureau of Reclamation to work cooperatively with State Park managers, abide by existing planning and operation agreements, and consider impacts on public recreation at this popular State Recreation Area.

We urge USBR to adopt a plan for solar array deployment that does not heavily impact or eliminate current and future public recreation, camping and lake use.

Sincerely,

*Victor Bjelejac, President*
*California State Park Rangers Association*

cc: Lisa Mangat, Director CSP
Jess Cooper, Superintendent Central Valley District
Senator Barbara Boxer
Senator Diane Feinstein
US Rep. Jim Costa

*Attachments (3 images)*

VB/jbp

## Attachments

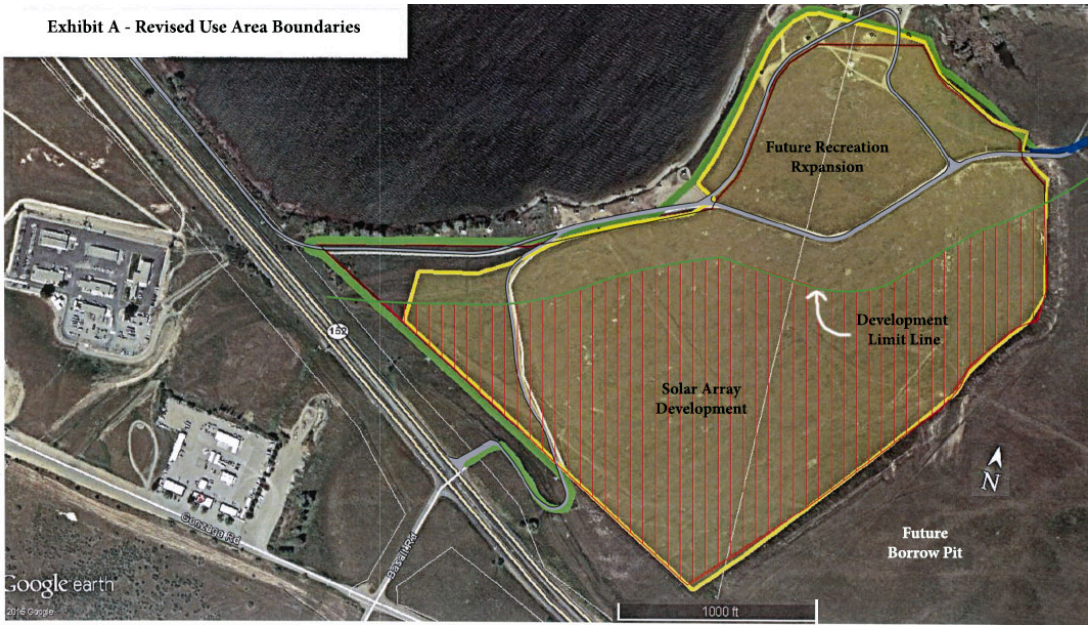


Exhibit A – *Showing State Park preferred limits and 100-yard recommended shoreline setback for development (thin green line), suggested solar development (red crosshatch), USBR Alternative 1 Boundary (heavy green line) and USBR Alternative 2 Boundary (yellow line). Reserved future borrow pit in lower right.*

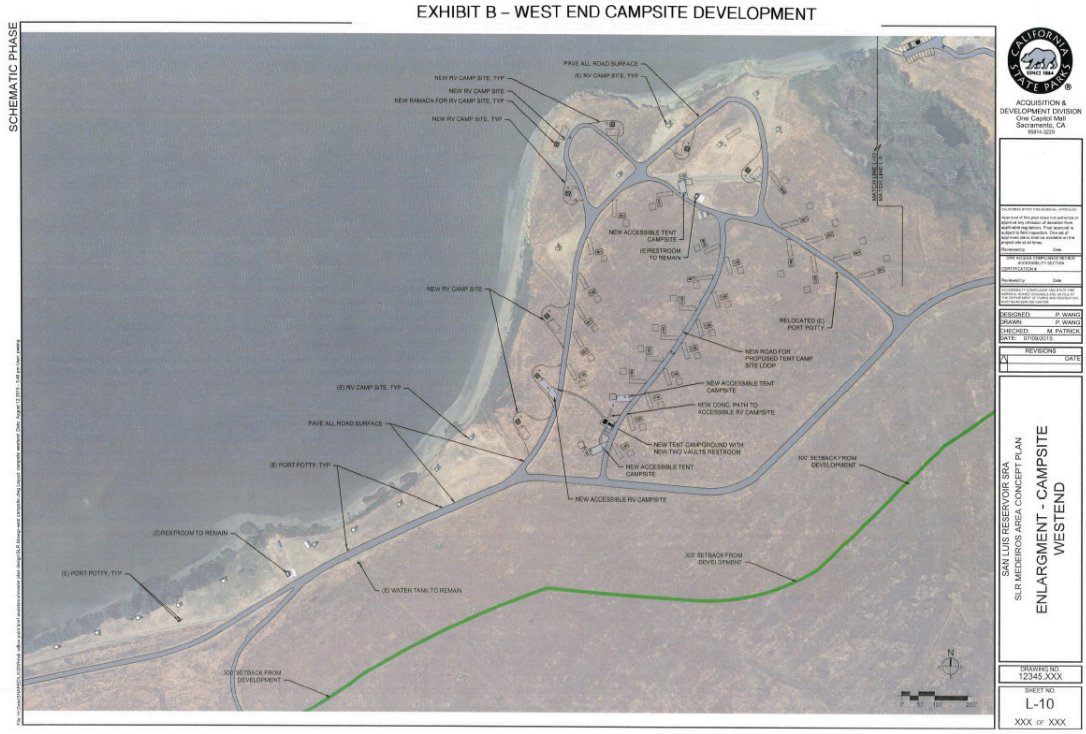


Exhibit B – *Showing proposed recreation expansion and State Parks preferred limits of solar array construction (green line) with a 100-yard setback from shoreline USBR Proposal.*

Exhibit C – *Showing conceptual view and elimination of existing facilities at rear of proposed secured solar area, and impacts on recreation expansion in a southerly direction by proposed development. Lakeshore is behind photographer.*

**Response to California State Park Rangers Association Letter, January 13, 2015 [*sic*]**

**CSPRA-1** The comment states that the "proposed construction of a solar array facility close to the Forebay shoreline, complete with perimeter security, eliminates the planned expansion" of shoreline camping and picnic use in the Medeiros Use Area and O'Neill Forebay.

See Response to CSP-1.

**CSPRA-2** The comment asserts that the project deprives users of future recreation expansion and that "impacts on recreation and public use are not adequately addressed in the Findings."

See Response to CSP-3 regarding impacts to Recreation. In reference to the adequacy of Reclamation's Findings, see Response to GWD-2.

**CSPRA-3** The comment asserts that the current proposal violates the 2013 San Luis Reservoir State Recreation Area (SRA) Resource Management Plan/General Plan's (RMP/GP).

The SRA RMP/GP proposes "uses that are compatible with Reclamation's core mission of delivering water and generating power," and one of its goals is to allow "for consideration and development of renewable energy projects within the Plan Area" (Reclamation and State Parks 2013).

One of the proposed management actions for the preferred alternative of the RMP/GP is to add "carbon-reducing features such as solar panels to offset carbon footprint." The Proposed Action is generally identified in the 2013 RMP/GP (Section 3.3.15.1). It is unclear how the current proposal violates the 2013 RMP/GP.

**CSPRA-4** The comment asserts that Reclamation "wants to reserve a borrow soil area for future dam seismic retrofit adjacent to the proposed recreation expansion, and restrict use of that borrow area from solar array development" and that Reclamation "must consider all reasonable alternatives to allow competing uses..."

Alternative locations in the SRA were evaluated for the Proposed Action but were not carried forward for the reasons described in Section 2.3 of EA-14-059. From a land use standpoint, the Basalt Quarry location would be economically infeasible due to terrain constraints and Reclamation's need to retain the area for future rock quarrying activity. In addition, the Basalt Quarry location is less compatible for a solar facility than Site 1 because it is in a Backcounty Zone. Backcounty Zones are intended to "keep a large portion of the Plan Area in a wild and primitive state," with future development focused on preserving "unfragmented expanses of native vegetation and wildlife habitat, wetlands,

cultural elements, and scenic vistas" (see Sections 4.3.6.2 and 4.3.6.3 from Reclamation and State Parks 2013).

Alternative project sites to the south of the State Parks office are in an Administration and Operations Zone, which theoretically would be an optimum land use for solar development because public access in these zones is limited. However, these locations have been identified as planned borrow areas for the seismic reinforcement of San Luis Dam. The same would apply to the area of Medeiros immediately east of Site 1, which State Parks has proposed as an alternative, or partial alternative, to Site 1.

The comment asserts that there are separate "competing" divisions in Reclamation that are undermining "good-faith negotiations" between State Parks and Reclamation. It is unclear what is being referenced as "competing" divisions in Reclamation; however, as noted in Response to CSP-1, State Parks and the Applicant have developed a mutually acceptable mitigation agreement for recreation impacts included as Appendix C of Final EA-14-059. Implementation of the terms of the mitigation agreement is a condition of Reclamation's approval of the Proposed Action.

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January 15, 2016

**VIA EMAIL and OVERNIGHT DELIVERY**

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**Via Email Only:**
Michael P. Jackson
Area Manager, Bureau of Reclamation
South-Central California Area Office
(mjackson@usbr.gov)

**Re: Comments on Draft Environmental Assessment and Draft Finding of No Significant Impact for the San Luis Solar Project (EA-14-059)**

Dear Ms. Lewis:

On behalf of Merced County Residents for Responsible Development, including Angel Martinez, Danny Cribbs Chan, Paul Vann and Fred Martinez and California Unions for Reliable Energy ("CURE") (collectively, "Coalition"), we submit these comments on the Draft Environmental Assessment and Plan of Development ("Draft EA") and Draft Finding of No Significant Impact ("Draft FONSI") for the San Luis Solar Project (EA-14-059) ("Project"). The Project includes the proposed issuance of a 30-year Land Use Authorization by Bureau of Reclamation ("Reclamation") to Applicant San Luis Renewables ("Applicant") to access, install, operate, maintain and remove a 26-megawatt ("MW") alternating current ("AC") solar photovoltaic ("PV") energy generating facility on Federal lands adjacent to the San Luis Reservoir State Recreation Area ("San Luis SRA") in

Coalition-1

Gustine, Merced County, California.[1] The Project proposes to install a lithium-ion battery energy storage system ("BESS") to allow energy generated by the Project to be delivered at a more constant rate.[2]

The Project is proposed to be located in the midst of a State recreation area at the intersection of the heavily trafficked highway interchange of State Route ("SR") 152 and SR 33. The Project site is adjacent to the O'Neill Forebay, which collects water released from the San Luis Dam and William R. Gianelli Powerplant, and overlies potable groundwater used for local municipal water supplies. The boundaries of the Project lands encompass the San Luis SRA and adjacent portions of the Delta-Mendota Canal, San Luis Wasteway, and California Aqueduct – three key regional waterways.[3] The EA identifies numerous federal and state-listed endangered and fully protected animal species as "having potential habitat in the Project area."[4]

Coalition-1 cont.

The Coalition's technical consultants have reviewed the EA and its appendices, and have concluded that the Project will have significant adverse impacts that Reclamation has failed to adequately discuss, analyze, or mitigate in the EA. Their observations constitute substantial evidence raising substantial questions as to whether the Project will have significant adverse environmental effects that require preparation of an environmental impact statement ("EIS"). Their observations, and the comments raised herein, also demonstrate that Reclamation has failed to take the "hard look" at the Project's potential impacts that is require by NEPA, and therefore lacks evidence to support a "convincing statement of reasons" to support the proposed FONSI.[5]

First, the Coalition's air quality expert Jessie Jaeger of Soil Water and Air Protection Enterprises ("SWAPE") reviewed the EA's air quality analysis, and has concluded that the Project will have significant construction emissions. Moreover, Ms. Jaeger has concluded that the emissions model prepared for the Draft EA is

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[1] EA, p. 1.
[2] EA, p. 6.
[3] EA, p. 3.
[4] EA, p. 51.
[5] 42 U.S.C. § 4332(2)(C); *Ocean Advocates v. U.S. Army Corps of Eng'rs*, 402 F.3d 846, 864-65 (9th Cir. 2005); *Kern v. United States Bureau of Land Mgmt.*, 284 F.3d 1062, 1066 (9th Cir.2002); *Alaska Ctr. for Env't v. United States Forest Serv.*, 189 F.3d 851, 859 (9th Cir.1999) (agency cannot avoid preparing an EIS by making conclusory assertions that an activity will have only an insignificant impact on the environment).

seriously flawed. Rather than calculate construction emissions over the entire 130-day construction period, as required by NEPA, Reclamation's model calculated construction emissions over just a single day, thus underestimating the Project's construction emissions by a factor of 130. Ms. Jaeger explains that, when properly calculated, the Project's nitrogen oxide ("NOx") emissions from construction will exceed applicable thresholds of significance adopted by the San Joaquin Valley Air Pollution Control District ("SJVAPCD"). The EA fails to disclose this impact, and fails to require any mitigation for it.

Hazardous materials expert Matt Hagemann of SWAPE concludes that the EA's discussion of the BESS fails to provide sufficient information to evaluate the Project's proposed fire response and secondary containment plans for the BESS in the event of a battery fire. The EA acknowledges that lithium-ion batteries are capable of spontaneous ignition due to overheating; thus posing a potentially significant fire risk at the Project site.[6] However, the EA fails to describe the Project's proposed fire containment mechanisms with any specificity, and improperly defers creation of the Project's Spill Prevention and Response Plan and Hazardous Materials Management Plan to an undetermined future date.[7] Mr. Hagemann concludes that, without adequate evidence that a battery fire will be properly contained, a fire at the Project site could result in the release of heavy metals and hazardous flame-retardant chemical dispersants into adjacent and underlying water supplies.

Coalition-1 cont.

Expert biologist Scott Cashen concludes that the Project is likely to result in significant impacts in the form of take of habitat and individual members of several federally and state listed special status species. In particular, Mr. Cashen concludes that the Project is likely to significantly impact the federally endangered Bald Eagle, San Joaquin Kit Fox, golden eagle, and Blunt-nosed leopard lizard. As explained in Mr. Cashen's comments, the Biological Assessment and Biological Evaluation prepared for the Project do not adequately evaluate the risks posed to these and other species from the loss of corridor habitat that will be caused by the Project, and fail entirely to address the Project's adverse effects on species that maintain special status as endangered or threatened under State law alone. Reclamation's approach to the Project's biological impacts analysis therefore fails to comply with the Department of Interior's ("DOI") mandate for federal agencies to

[6] EA, p. 23.
[7] EA, pp. 37-40.

address biodiversity, avoidance, and mitigation in their environmental review documents.

Finally, traffic engineer Daniel Smith concluded that the 2012 Quinto Project traffic study relied on by Reclamation does not adequately analyze traffic impacts from the San Luis Project. In addition to the threshold problem that the Quinto study was prepared for a different project and contains outdated information, Mr. Smith explains that two of the three development sites for the San Luis Project require the use of different roads, bridges, and approaches than those analyzed for the Quinto Project. The Quinto traffic study is therefore inadequate to analyze the traffic impacts for the San Luis Project. A traffic study must be prepared for this Project before Reclamation can purport to conclude that the Project's construction traffic impacts will be insignificant.

Reclamation is the lead agency for the Project pursuant to the National Environmental Policy Act ("NEPA").[8] Rather than prepare an environmental impact statement ("EIS") to analyze the Project's potentially significant impacts on the natural and human environment, as required by NEPA, Reclamation proposes to rely on the cursory environmental analysis contained in the Draft EA to support the Draft FONSI's finding that the Project will not have a significant effect on the quality of the human environment and does not require an EIS.

Coalition-1 cont.

As described herein, the Draft EA and Draft FONSI fail to accurately discuss the baseline conditions surrounding Project implementation, and fail to adequately discuss or analyze the Project's potentially significant impacts on biological resources, air quality, traffic, and the risks posed by hazardous materials, to name a few. The Draft EA and Draft FONSI also fail to incorporate adequate mitigation to reduce significant Project impacts to less than significant levels. Moreover, the Draft EA and Draft FONSI fail to follow Department of Interior ("DOI") mitigation guidance, which requires all departments within DOI to implement a mitigation hierarchy in NEPA documents prepared for all major federal actions that avoids, minimizes, and compensates for impacts to critical resources, and which takes biodiversity into account. CURE urges Reclamation to remedy the significant informational deficiencies in the Draft EA and Draft FONSI by preparing a legally adequate EIS for the Project.

[8] 42 U.S.C. §§ 4321 et seq.

These comments are supported by the attached comments of air quality expert Jessie Jaeger and hazardous materials expert Matt Hagemann (Exhibit A), traffic engineer Daniel T. Smith (Exhibit B), and biological resources expert Scott Cashen (Exhibit C). These expert comments, qualifications, and references cited in their letters are attached hereto and incorporated herein by reference. We request that Reclamation consider and respond to these consultants' comments separately and individually.

## I. STATEMENT OF INTEREST

Merced County Residents for Responsible Development is an unincorporated association of individuals and labor organizations that are concerned about environmental and public health impacts from industrial development in the region where the coalition's members and their families live, work and recreate. The coalition is comprised of individuals, including Santa Nella resident Angel Martinez and Modesto residents Danny Cribbs Chan,Paul Vann and Fred Martinez, and organizations, including California Unions for Reliable Energy ("CURE") and its local affiliates, and the affiliates' members and their families, as well as other individuals who live, work and recreate in Merced County.

Coalition-1 cont.

CURE is a coalition of labor organizations whose members construct, operate, and maintain conventional and renewable energy power plants throughout California. Since its founding in 1997, CURE has been committed to building a strong economy and a healthier environment. CURE has helped cut smog-forming pollutants in half, reduced toxic emissions, increased the use of recycled water for cooling systems and pushed for groundbreaking pollution control equipment as the standard for all new power plants, all while ensuring new power plants are built with highly trained, professional workers who live and raise families in nearby communities.

In addition, CURE has an interest in enforcing environmental laws that encourage sustainable development and ensure a safe working environment for its members. Environmentally detrimental projects can jeopardize future jobs by making it more difficult and more expensive for business and industry to expand in the region, and by making it less desirable for businesses to locate and people to live there. Indeed, continued degradation can, and has, caused construction moratoriums and other restrictions on growth that, in turn, reduce future employment opportunities.

Angel Martinez, Danny Cribbs Chan, Paul Vann, Fred Martinez, and individual members of CURE's affiliates live, work, recreate and raise their families in Merced County and the surrounding counties of the San Joaquin Valley, including in the areas in and around the San Luis SRA where the Project will be located. Accordingly, they will be directly affected by the Project's environmental and health and safety impacts. Individual members of CURE's affiliates may also work on the Project itself. They will, therefore, be first in line to be exposed to any hazardous materials, air contaminants or other health and safety hazards that exist onsite.

## II. LEGAL BACKGROUND

Coalition-1 cont.

NEPA is "our basic national charter for protection of the environment."[9] Its purpose is "to help public officials make decisions that are based on understanding of environmental consequences, and take actions that protect, restore, and enhance the environment."[10] NEPA therefore requires federal agencies to take a "hard look at [the] environmental consequences" of their proposed actions.[11] In so doing, NEPA makes certain "that environmental concerns will be integrated into the very process of agency decision-making."[12]

NEPA requires all agencies of the federal government to prepare a "detailed statement" that discusses the environmental effects of, and reasonable alternatives to, all "major Federal actions significantly affecting the quality of the human environment."[13] This statement is commonly known as an environmental impact statement ("EIS"). An EIS must describe: (1) the "environmental impact of the proposed action"; (2) any "adverse environmental effects which cannot be avoided should the proposal be implemented"; and (3) any "alternatives to the proposed action."[14] It further requires that "the policies, regulations, and public laws of the United States shall be interpreted and administered in accordance with the policies set forth" therein.[15] The environmental "effects" that must be considered in an EIS

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[9] 40 C.F.R. 1500.1(a).
[10] *Id.* § 1500.1(c).
[11] *Robertson v. Methow Valley Citizens Council* (1989) 490 U.S. 332, 350.
[12] *Andrus v. Sierra Club*, 442 U.S. 347, 350 (1979).
[13] 42 U.S.C. § 4332(2)(C).
[14] *Id.*
[15] *Id.*

include both "direct effects which are caused by the action" and "indirect effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable."[16]

The Council on Environmental Quality ("CEQ"), an agency within the Executive Office of the President, has promulgated regulations implementing NEPA.[17] The CEQ regulations identify a number of criteria that an agency must consider when determining whether an action may significantly affect the environment.[18] "'Significantly' as used in NEPA requires considerations of both context and intensity."[19] "Context ... means that the significance of an action must be analyzed in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action."[20] "Both short- and long-term effects are relevant."[21] "Intensity ... refers to the severity of impact."[22] The regulation set forth specific criteria to be considered by an agency in order to evaluate intensity, including:

Coalition-1 cont.

(1) Impacts that may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.

(2) The degree to which the proposed action affects public health or safety.

(3) Unique characteristics of the geographic area such as proximity to prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.

(4) The degree to which the effects on the quality of the human environment are likely to be highly controversial.

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[16] 40 C.F.R. § 1508.8)a), (b).
[17] *See* 10 C.F.R. § 1021.103.
[18] 40 CFR § 1508.27.
[19] *Id.*
[20] 40 CFR § 1508.27(a).
[21] *Id.*
[22] 40 CFR § 1508.27(b).

(5) The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

(6) The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

(7) Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.

Coalition-1 cont.

(8) The degree to which the action ... may cause loss or destruction of significant scientific ... resources.

(9) The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.

(10) Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.[23]

When an agency does not know whether the effects of its action will be "significant," it may prepare an EA to help make that determination.[24] An EA is a concise analysis of the need for the proposed action, of alternatives thereto, and of the environmental impacts of both the action and the alternatives.[25] If the EA indicates that the federal action may significantly affect the quality of the human environment, the agency must prepare an EIS.[26] If the agency decides not to prepare an EIS, it must prepare a FONSI, which convincingly explains the agency's reasons for its decision.[27] A showing that there are

[23] *Id.* §1508.27(b)(1)-(10).
[24] 40 C.F.R. § 1501.4(b).
[25] 40 C.F.R. § 1508.9.
[26] 40 C.F.R. § 1501.4(c).
[27] 40 C.F.R. § 1508.13.

substantial questions whether a project may have a significant effect on the environment is sufficient to require preparation of an EIS.[28]

Finally, even if an agency prepares an EA and issues a FONSI, the agency has a duty to supplement its analysis if there are "significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts."[29] The duty to prepare an environmental assessment is a continuing duty and "[w]hen new information comes to light the agency must consider it, evaluate it, and make a reasoned determination whether it is of such significance" as to require the preparation of a supplemental EA or an EIS.[30]

Coalition-1 cont.

## III. THE PROJECT IS A MAJOR FEDERAL ACTION REQUIRING PREPARATION OF AN EIS

The San Luis Project is a "major federal action" as defined by NEPA. NEPA requires all agencies of the federal government to prepare an EIS for all "major Federal actions significantly affecting the quality of the human environment."[31] Major federal actions "include new and continuing activities, including projects and programs entirely or partly financed, assisted, conducted, regulated, or approved by federal agencies."[32] One example of a type of major federal action includes "[a]pproval of specific projects, such as construction or management activities located in a defined geographic area. Projects include actions approved by permit or other regulatory decision as well as federal and federally assisted activities."[33]

Coalition-2

Joint federal-private energy development projects like the Project have been held to be major federal actions requiring preparation of an EIS. In *Natural Resources Defense Council, Inc. v. Hodel*, the District Court held that a power development program to construct hydroelectric generators and energy transmission facilities was major" in both the environmental and economic sense because "[t]he construction of transmission facilities will require that vast acreages

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[28] Anderson v. Evans, 371 F.3d 475, 488 (9th Cir. 2002).
[29] 40 C.F.R. § 1502.9(c)(1)(ii); *Idaho Sporting Congress v. Thomas*, 137 F.3d 1146, 1152 (9th Cir. 1998) (holding that an EA must be supplemented in the same manner as an EIS); *Or. Natural Res. Council Action v. United States Forest Serv.*, 445 F.Supp.2d 1211, 1219 (D. Or. 2006).
[30] *Friends of the Clearwater v. Dombeck*, 222 F.3d 552, 558 (9th Cir. 2000).
[31] 42 U.S.C. § 4332(2)(C).
[32] 40 C.F.R. § 1508.18(a).
[33] 40 C.F.R. § 1508.18(b).

of land be converted from their present agricultural, recreational, and other uses, with accompanying disruption of fish and wildlife habitats. The increasing use of hydroelectric generators to meet peak load will cause large, rapid fluctuations of water levels affecting recreational activities, commerce, and aquatic life."[34] Similarly, in *Port of Astoria, Or. v. Hodel*,[35] the Ninth Circuit held that a power supply contract to supply electrical power to proposed aluminum reduction plant was a "major federal action" requiring an environmental impact statement where the contract created a new commitment of the Federal power administration's energy resources and set the stage for the second phase of a hydrothermal power program.

Coalition-2 cont.

The San Luis Project is a utility scale solar development project that will be carried out on Federal lands and requires Federal permits from Reclamation in order to construct and operate the Project. Like the power project in *NRDC v. Hodel*, the San Luis Project will require that substantial acreages of Federal public land be converted from their present recreational and administrative uses "with accompanying disruption of fish and wildlife habitats."[36] And like the power supply contracts in *Port of Astoria*, the Project is intended to implement the Secretary of the Interior's Secretary's Order 3285A1, which commits the Department of the Interior ("DOI") to developing and delivering renewable power "as one of Interior's highest priorities."[37] The Project is also intended to help offset expected power delivery cost increases for operating Reclamation's San Luis Unit hydroelectric facilities, and the remaining power produced by the Project is intended to be sold to a municipal or public utility or a private purchaser and transmitted over the WAPA transmission system, which is operated by another federal agency.[38]

The Project is therefore a "major federal action" for which NEPA requires an EIS to be prepared. And, as discussed below, the Project will have significant adverse impacts that the Draft EA and Draft FONSI failed to discuss, analyze, and

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[34] *Natural Resources Defense Council, Inc. v. Hodel* ("*NRDC v. Hodel*")(D. Or. 1977) 435 F.Supp. 590, 598 aff'd sub nom. *Natural Resources Defense Council, Inc. v. Munro* (9th Cir. 1980) 626 F.2d 134 and judgment vacated, cause dismissed sub nom. *Natural Resources Defense Council, Inc. v. Munro* (D. Or. 1981) 520 F.Supp. 17.
[35] (9th Cir. 1979) 595 F.2d 467.
[36] *NRDC v. Hodel*, 435 F.Supp. at 598.
[37] EA, p. 1.
[38] EA, p. 4.

Coalition-2 cont.

mitigate. An EIS must be prepared to provide the public with the detailed information about the Project that is required by NEPA.

## IV. AN EIS IS REQUIRED FOR THE PROJECT BECAUSE THERE ARE SUBSTANTIAL QUESTIONS AS TO THE PROJECT'S POTENTIALLY SIGNIFICANT EFFECTS ON THE ENVIRONMENT[39]

Reclamation may not rely on the Draft EA to conclude that the Project will not have any significant impacts because substantial questions exist as to the nature, extent, and severity of numerous potentially significant environmental impacts that Reclamation has failed to adequately discuss and mitigate in the Draft EA.

Coalition-3

The purpose of an EA is to determine whether a federal action is "significant" enough to require an impact statement.[40] If the EA indicates that the federal action may significantly affect the quality of the human environment, the agency must prepare an EIS.[41] In determining significance, CEQ regulations require the agency to consider both the context, or "setting" of the proposed project, and the "severity" of its short-term and long-term effects.[42] There are ten separate factors that contribute to an obligatory finding by the lead agency than an EIS is required.[43] "[A]n EIS must be prepared if substantial questions are raised as to whether a project ... may cause significant degradation of some human environmental factor."[44] The Ninth Circuit has held that that just one of these factors is sufficient to require preparation of an EIS.[45]

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[39] For all of the same reasons discussed in Section IV herein, Reclamation also failed to take a hard look at the Project's potentially significant impacts as required under NEPA. 42 U.S.C. § 4332(2)(C).
[40] 42 U.S.C. § 4332(2)(C) (EIS must be prepared for all major federal actions significantly affecting the human environment); *Ocean Advocates v. U.S. Army Corps of Eng'rs*, 402 F.3d 846, 864-65 (9th Cir. 2005); *Friends of Fiery Gizzard v. Farmers Home Admin.*, 61 F.3d 501, 505(6th Cir. 1995).
[41] 40 C.F.R. § 1501.4(c).
[42] 40 C.F.R. § 1508.27; *Ocean Advocates*, 402 F.3d at 865.
[43] 40 C.F.R. § 1508.27(b)(1)-(10).
[44] *Ocean Advocates*, 402 F.3d at 864; *Idaho Sporting Cong. v. Thomas*, 137 F.3d 1146, 1149 (9th Cir.1998).
[45] *Ocean Advocates*, 402 F.3d at 865; *see Nat'l Parks & Conservation Ass'n v. Babbitt*, 241 F.3d 722, 731 (9th Cir.2001).

Coalition-3 cont.

As discussed herein, there is substantial evidence raising substantial questions that the Project will have significant impacts, as defined by NEPA, in all ten categories.

Coalition-4

### A. There is Substantial Evidence Demonstrating that the Project Will Have Significant Impacts on Air Quality from Construction Emissions.[46]

Under NEPA, an impact that is individually significant, but contributes to a net beneficial effect of the project, is still considered a significant effect for purposes of determining whether an EIS is required.[47] The courts have explained this legal standard. "This is not to say, of course, that the benefits of the project would justify a finding of no significant impact if the project would also produce significant adverse effects. Where such adverse effects can be predicted, and the agency is in the position of having to balance the adverse effects against the projected benefits, the matter must, under NEPA, be decided in light of an environmental impact statement."[48]

Air quality expert Jessie Jaeger concluded that the Project will create significant NOx emissions during Project construction that exceed applicable air district thresholds.[49] Notwithstanding that one of the intended benefits of the Project is to "reduce air emissions from non-renewable power generation,"[50] the fact that Project construction will release significant levels of NOx into the atmosphere during the 6-month construction period is nevertheless a significant effect that triggers the need to prepare an EIS.[51]

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[46] 40 C.F.R. § 1508.27(b)(1). This impact also constitutes a significant impact pursuant to NEPA factor 40 C.F.R. § 1508.27(b)(10( (violations of Federal, State or local laws and requirements) because the Project's excessive NOx emissions result in violations of federal National Ambient Air Quality Standards, the California Clean Air Act, and SJVAPCD Guidelines.

[47] *Id.* ("A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.").

[48] *Friends of Fiery Gizzard v. Farmers Home Admin.* (6th Cir. 1995) 61 F.3d 501, 505, *citing Sierra Club v. Marsh*, 769 F.2d 868, 880 (1st Cir.1985); 40 C.F.R. § 1508.27(b)(1).

[49] See Exhibit A, SWAPE Comments, p. 11.

[50] EA, p. 4.

[51] *Ocean Advocates*, 402 F.3d at 865; *Friends of Fiery Gizzard*, 61 F.3d at 505.

*1. Construction Emissions*

The Project area is located in the San Joaquin Valley Air Basin under the jurisdiction of the SJVAPCD. The San Joaquin Valley Air Basin is in both State and Federal non-attainment for ozone.[52] NOx is an ozone precursor and a criteria air pollutant that is typically released by heavy duty trucks and construction equipment.[53]

The Draft EA concluded that the Project's construction emissions would be less than significant because they fall below SJVAPD thresholds of significance for criteria air pollutants.[54] Air quality expert Ms. Jaeger reviewed Reclamation's emissions calculations, and concluded that the model contains significant errors. Specifically, Ms. Jaeger concludes that several of the values that were input into the Draft EA's air quality model, Appendix B, are inconsistent with the basic Project information contained in the Draft EA. SWAPE recalculated the Project's construction emissions using the information provided in the Draft EA on Project construction, and concluded that the Project's NOx construction emissions exceed the SJVAPCD's significance threshold of 10 tons per year.[55]

Coalition-4 cont.

The Draft EA calculated the Project's construction emissions using the California Emissions Estimator Model Version CalEEMod.2013.2.2 ("CalEEMod") air quality model.[56] CalEEMod is a statewide land use emissions computer model that is recommended by both CARB and SJVAPD for use in modeling air emissions from land use projects.[57] CalEEMod provides recommended default values based on site specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is available, the user can change the default values and input project-specific values.[58]

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[52] EA, p. 66.
[53] See SJVAPCD, Guidance for Assessing and Mitigating Air Quality Impacts, March 19, 2015, p. 40.
[54] EA, p. 68.
[55] See Exhibit A, SWAPE Comments, p. 13.
[56] EA, p. 68.
[57] See CalEEMod User Guide, *available at:* http://www.caleemod.com/; SJVAPCD , Guidance for Assessing and Mitigating Air Quality Impacts, March 19, 2015, p. 56, available at http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf.
[58] CalEEMod User Guide, pp. 2, 9, *available at:* http://www.caleemod.com/

Ms. Jaeger reviewed the CalEEMod output files in Appendix B[59] and concluded that the Project model contains factual errors in five key Project-specific input values:

- Project Size: The "Lot Acreage" inputted into the Draft EA's model does not correspond to the total area of the entire site. The Project will occupy 246.5 acres.[60] However, Appendix B used a "Lot Acreage" factor of 200 acres to represent the Project's total area.

- Construction Schedule: The construction schedule used in Appendix B does not correspond with the construction schedule described in the Draft EA. According to the Draft EA, Project construction will take approximately 130 days.[61] However, Appendix B estimated emissions over a single day.[62] This threshold error resulted in the Draft EA underestimating the Project's construction emissions by a factor of 130.

Coalition-4 cont.

- Usage Hours for Off-Road Construction Equipment: Appendix B assumed that the Project's off-road construction equipment would be used for just 2 hours per day for each piece of equipment.[63] This assumption is unsupported by any evidence in the Draft EA, which explains that Project construction will take place approximately 8 hours per day over a 130-day period.[64]

- Construction Equipment: Ms. Jaeger concludes that the equipment list used in Appendix B is inconsistent with the equipment identified elsewhere in the Draft EA. The Draft EA identifies heavy construction equipment such as Graders, Rubber Tired Dozers, Rough Terrain Forklifts, and Rubber Tired Loaders as types of equipment that will be used during Project construction.[65] Appendix B, however, did not include any of this heavy equipment in its emissions estimates, resulting in an

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[59] EA, Appendix B.
[60] EA, p. 6.
[61] EA, p. 30.
[62] EA, Appendix B, p. 172, 176 (construction emissions were modeled "over a single day to simplify calculation," starting and ending on January 1, 2016).
[63] See Exhibit A, SWAPE Comments, p. 6; EA Appendix B, pp. 176.
[64] EA, pp. 30, 125.
[65] EA, p. 134, Table 11.

artificially lower emission estimate. Neither Appendix B nor the Draft EA provide any explanation for Appendix B's omission of heavy construction equipment from the air quality model.

- Trip Length Estimates for Workers and Construction Vendors: Appendix B uses a default worker trip length of 16.8 miles, and a default vendor trip length of 6.6 miles. Appendix B also inexplicably omits water and concrete delivery trucks from its definition of "vendors." By contrast, background facts discussed in the Draft EA indicate that the average worker trip length for the Project site is actually 19 miles one-way.[66] Trip lengths used by vendors for other nearby solar projects average up to 100 miles one way.[67] There is no discussion in the Draft EA or Appendix B that explains the reasoning for Appendix B's reliance on these shortened trip lengths. The trip lengths included in Appendix B are therefore unsupported by any evidence in the record.

Coalition-4 cont.

The errors in the Draft EA's air quality analysis raise substantial questions as to whether the Project will have significant air quality impacts.

Ms. Jaeger remodeled the Project's construction emissions using the same CalEEMod model used by Reclamation, but used the Project-specific input values discussed in the Draft EA for the five factors discussed above. Ms. Jaeger's found that, when properly calculated, the Project's NOx emissions from construction will be 18.4 tons per year.[68]

| | ROG | $NO_x$ | CO | $PM_{10}$ | $PM_{2.5}$ |
|---|---|---|---|---|---|
| ***Construction Emissions in Tons Per Year*** | | | | | |
| DEA Model | 0.4 | 4.6 | 2.7 | 0.3 | 0.2 |
| **Threshold** | **10** | **10** | **100** | **15** | **15** |
| ***Exceed?*** | *No* | *No* | *No* | *No* | *No* |
| SWAPE Model | 1.7 | 18.4 | 10.2 | 1.4 | 0.9 |
| **Threshold** | **10** | **10** | **100** | **15** | **15** |
| ***Exceed?*** | *No* | ***Yes*** | *No* | *No* | *No* |

[66] See Exhibit A, SWAPE Comments, p. 9; EA, p. 121.
[67] See Exhibit A, SWAPE Comments, p. 10.
[68] See Exhibit A, SWAPE Comments, p. 13.

Coalition-4 cont.

This is almost double the SJVAPD significance threshold of 10 tons per year, and is therefore a significant impact under 40 C.F.R. § 1508.27(b)(1). An EIS must be prepared to adequately address and mitigate this significant Project impact.

Finally, the EA failed entirely to mention or analyze the Project's toxic air contaminant emissions.

*2. Cumulative Impacts*

Coalition-5

The Draft EA erroneous concludes that, because the Project "would provide long-term operational benefits to local air quality and GHG emissions," its contribution to cumulative air quality impacts "is therefore considered beneficial."[69] This is inconsistent with NEPA's "beneficial impacts" legal standard, which requires an EIS to be prepared for projects that have beneficial impacts if there is evidence that they will also have a significant adverse impact.[70] In light of SWAPE's determination that the Project will have significant NOx emissions from construction, Reclamation must acknowledge that the Project will have a significant incremental contribution to cumulative air pollution impacts, and prepare an EIS to thoroughly discuss and mitigate those impacts.

## B. There is Substantial Evidence Demonstrating that the Project May Significantly Affect Public Health and Safety.[71]

Coalition-6

Under NEPA's "significant effects" regulation, a proposed action which may adversely affect public health or safety is considered to have a significant impact requiring preparation of an EIS.[72] Expert evidence from SWAPE demonstrates that there is a substantial safety risk posed by fire at the Project's proposed battery storage facility that the Draft EA has failed to adequately discuss and mitigate. Mr. Hagemann also raises substantial questions about the Draft EA's failure to discuss plans for battery replacement and disposal during the life of the BESS. And evidence from traffic engineer Mr. Smith demonstrates that the Project poses a substantial safety risk from the possible collapse of bridges near the Project site if traffic from Project construction vehicles is not adequately controlled.

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[69] EA, p. 69.
[70] 40 C.F.R. § 1508.27(b)(1); *Friends of Fiery Gizzard*, 61 F.3d at 505.
[71] 40 C.F.R. § 1508.27(b)(2).
[72] *Id.*

*1. Battery Energy Storage System*[73]

Coalition-6 cont.

The Applicant proposes to install a 10MW-12MW lithium-ion battery energy storage system to help the Applicant "better deliver energy at a controlled and more constant level."[74] According to the Draft EA, the BESS would be constructed as a modular system with a total footprint of up to 0.7 acre. The facility would be located to the west of Site 3.[75]

a. Battery Fire

Coalition-7

Although the BESS facility would not be directly accessible to the public,[76] it poses a substantial public safety and health risk to the public from a possible battery fire at the BESS site, which could spread beyond the boundaries of Site 3. The Draft EA explains that lithium-ion batteries are "capable of spontaneous ignition due to overheating," and acknowledges that "battery fire risks" are a potentially significant impact if not adequately mitigated.[77] Mr. Hagemann concludes that the Draft EA fails to adequately consider the impacts that a battery storage fire may have on underlying shallow groundwater and the nearby reservoir. The Draft EA also fails to include any of its proposed hazardous materials plans, spill and response plans, or emergency response plans in the Draft EA. Without these plans, Reclamation lacks substantial evidence to support its conclusion that the impacts of a battery fire will be mitigated to less than significant levels. Moreover, the public is unable to evaluate whether Reclamation and the Project Applicant have the means to adequately contain, suppress, and treat a spontaneous battery fire at the Project site.[78]

As explained by Mr. Hagemann, if a fire were to occur at the BESS, components of the batteries, namely heavy metals and electrolytes, as well as fire-

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[73] The potentially significant impacts from the risk of a battery fire at the Project site also constitute significant impacts pursuant to 40 C.F.R. § 1508.27(b)(4), effects on the human environment that are likely to be highly controversial; 40 C.F.R. § 1508.27(b)(5) (unique or unknown risks); and 40 C.F.R. § 1508.27(b)(6) (projects whose course of action may establish a precedent for future actions with similar significant effects).
[74] EA, p. 6.
[75] EA, p. 22.
[76] EA, p. 22.
[77] EA, p. 23.
[78] See Exhibit A, SWAPE Comments, pp. 1-4.

suppressant chemicals, could be mobilized.[79] These contaminants could be transported to the O'Neill Forebay, less than 2500 feet west of the BESS, and to groundwater which may be as shallow as 20 feet below the ground surface at Site 3. The O'Neill Forebay is a source for municipal water supply with a capacity of 56,400 acre feet, and groundwater at the Project site is used for public water supply.[80]

The Draft EA fails to identify the chemicals that will be used as fire suppressants. It is therefore impossible for the public or relevant regulatory agencies to assess the toxicity of these chemicals, whether their release may pose a separate threat to human health, air quality, water quality, or sensitive land and aquatic organisms that requires mitigation, and whether any less toxic fire-suppressant alternatives should be considered.[81] Mr. Hagemann discusses the potential hazards posed by the release of toxins from both battery constituents and fire-fighting chemicals in a BESS fire:

Coalition-7 cont.

> Lithium-ion battery fires have the potential to liberate chemical constituents of the batteries, including typical cathode materials which include cobalt, nickel, manganese and iron phosphate, all of which may pose risks to drinking water in the O'Neill Forebay and aquatic organisms if made mobile in water. Other chemicals may also be present in lithium batteries, including a wide range of potentially hazardous components including fluorinated compounds and metal oxides.[82] The fire-suppression chemicals, which are not identified in the DEA, may also pose a risk.[83]

By failing to disclose the specific battery constituents and fire-suppressant chemicals that Reclamation plans to use at the Project site, the Draft EA fails to adequately inform the public about the extent of the Project's public health and safety risks.

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[79] *Id.* At pp. 1, 3, citing Scientific American, *Battery Fires Pose New Risks to Firefighters*, February 27, 2015.
[80] EA, p. 45.
[81] *See Forest Service Employees for Environmental Ethics v. U.S. Forest Service* (D. Mont. 2010) 726 F.Supp.2d 1195, 1215 (finding of no significant impact improper for project using chemical fire retardants to fight wildfire on public lands where Environmental Assessment failed to disclose which chemical fire retardants would be used).
[82] http://www.prba.org/wp-content/uploads/Exponent_Report_for_NFPA_-_20111.pdf
[83] Exhibit A, SWAPE Comments, p. 2.

Mr. Hagemann next concludes that the Draft EA fails to provide sufficient information to determine whether the Project's proposed containment system is adequate to contain all potential chemical releases during a batter fire. This raises a substantial question as to whether the proposed containment system would protect the public and sensitive aquatic organisms from hazardous chemical releases into the adjacent water bodies.[84]

The Draft EA states that the battery units will be stored on a concrete pad surrounded by a concrete berm or containment system, but fails to provide any plans or drawings that describe the dimensions or containment capacity of the proposed containment system.[85] The Draft EA also purports to rely on four separate plans – a Hazardous Materials Management Plan (Mitigation Measure WQ-q), a Hazardous Materials Business Plan (Mitigation Measure HAZ-1), a Spill Prevention and Response Plan, and an Emergency Action Plan (Mitigation Measure HAZ-2) to safeguard the Project site and the public from battery storage risks.[86] As discussed above, none of these plans were included in the Draft EA, and apparently had not even been drafted at the time the Draft EA was released.[87] The failure to include these critical emergency planning documents in the Draft EA is also impermissibly deferred mitigation.

Coalition-7 cont.

Mr. Hagemann identifies specific information that must be provided to the public in a subsequent EIS to enable to meaningful evaluation of the potential safety risks from a BESS fire:

> To address concerns for fire-suppression impacts to water quality at the battery energy storage facility, and to identify appropriate mitigation, an EIS should be prepared to include:
>
> 1. A volume estimate of the amount of water and chemical suppressants that would be necessary to fight a reasonable worst case fire scenario;
> 2. A list of all chemical components in the lithium ion batteries including chemicals in the electrolyte;

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[84] Exhibit A, SWAPE Comments, pp. 2-3.
[85] EA, p. 37, Mitigation Measure WQ-1..
[86] EA, p. 37, Mitigation Measures HAZ-1 and HAZ-2.
[87] See e.g. EA, p. 39 ("HAZ-1: A Hazardous Materials Business Plan ***will be prepared***....") (emphasis added); ("HAZ-3: ...These requirements and any applicable reporting ***will be detailed*** in the Spill Prevention and Response Plan.") (emphasis added).

3. Plans to show that secondary containment would be adequate to handle the volume of water and chemicals necessary to fight a worst-case scenario fire; and
4. A list of all chemicals that are anticipated to be necessary to fight a lithium-ion battery fire.[88]

Coalition-7 cont.

Mr. Hagemann explains that a critical component of environmental protection at the Project site is a plan for fighting a fire efficiently and effectively. "Fires at large-scale lithium-ion battery storage facilities have proven difficult to fight and have required new techniques. For example, a fire at a large lead-acid site provides a perspective on how difficult these kinds of fires can be to combat. Such a fire in Hawaii, as documented in a recent Scientific American article, produced scalding heat, poisonous fumes and the potential for battery explosions. Firefighters avoided using water to extinguish the fire out of concerns for electric shock and risks of creating toxic chemical runoff."[89] These factors are not evaluated in the Draft EA and must be considered.

Battery storage at the utility scale is a new undertaking and plans for firefighting to protect human life and the environment are critical to public safety. If these risks are not adequately mitigated planned for and mitigated, the Project is likely to result in significant impacts to public health and safety from possible battery fires at the BESS facility. An EIS must be prepared to address these critical safety issues.

b. Battery Replacement and Disposal

Coalition-8

The Draft EA fails to discuss the need for battery replacement and disposal during the life of the Project and when the Project is decommissioned in approximately 30 years. Estimates for the life of lithium-ion batteries in consumer products range between 300 and 500 discharge/charge cycles.[90] Mr. Hagemann concludes that such a shelf-life would require numerous battery change-outs and proper disposal over the lifetime of the Project.[91] In California, all discarded batteries are considered to be hazardous waste.[92] The Draft EA fails to discuss any

[88] Exhibit A, SWAPE Comments, p. 3.
[89] *Id.*; http://www.scientificamerican.com/article/battery-fires-pose-new-risks-to-firefighters/
[90] http://batteryuniversity.com/learn/article/how_to_prolong_lithium_based_batteries
[91] Exhibit A, SWAPE Comments, p. 4.
[92] http://www.calrecycle.ca.gov/reducewaste/Batteries/

Coalition-8 cont.

plans or procedures for battery disposal in compliance with State hazardous waste management laws. An EIS must be prepared to quantify the number of batteries that are anticipated to be used over the life of the Project and how those batteries will be discarded at the end of their useful life.

*2. Bridge Traffic*

Coalition-9

Reclamation failed to prepare a traffic analysis for the Project, and instead relied on a 2011 traffic study prepared for the Quinto Solar PV Project.[93] The Quinto traffic study analyzed potential impacts from construction traffic passing over the McCabe Road Bridge, a bridge that will also be used for construction traffic travelling to and from the San Luis Project site.[94] The McCabe Bridge passes over the California Aqueduct and has a legal limit on load of 80,000 pounds or less.[95] The Quinto Project EIR described the size and anticipated weight of construction trucks that were expected to traverse the bridge, and implemented mitigation measures prohibiting trucks over 80,000 pounds from crossing the McCabe Bridge, and prohibiting more than one truck from crossing the bridge at a time.[96]

The Draft EA fails to include anything near the level of detail that the Quinto traffic study provided to address similar impacts to the McCabe Bridge from construction of the San Luis Project. The Draft EA merely states that the Project may require up to four large truck deliveries at a time during peak construction hours.[97] However, the Draft EA fails to describe the size or weight of these trucks,[98] and proposes a single, non-binding mitigation measure that "the construction contracts ***should include the requirement*** that drivers cannot pass on, or have two vehicles share, the McCabe Road Bridge."[99]

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[93] Dowling Associates, Inc., Traffic Impact Study for the Quinto Solar Photovoltaic Project, Merced County, CA; prepared for EMC Planning Group, Inc., July 19, 2011, available at http://www.co.merced.ca.us/pdfs/env_docs/eir/QuintoSolarPVProjectDraftEIRAppendices.pdf.
[94] EA, p. 122.
[95] *Id.* at p. 23; EA, p. 122.
[96] Quinto Traffic Study, p. 23.
[97] EA, p. 122.
[98] *Id.*
[99] EA, p. 3p, Mitigation Measure TR-1 (emphasis added).

Mr. Smith analyzed the traffic patterns that would be required for construction trucks to enter the Project site via McCabe Road. He concluded that entry and egress of delivery trucks at the Project site will require an immediate left turn off of McCabe Bridge onto the site.[100] According to Mr. Smith, this factor is likely to increase the risk of traffic backup on the McCabe Bridge, and therefore may increase the safety risks posed by Project construction vehicles that must use the bridge.[101] The Draft EA fails to discuss this risk at all. And, as explained by Mr. Smith, the Draft EA's proposed Mitigation Measure TR-1 is non-binding and therefore insufficient to mitigate these risks.

Coalition-9 cont.

The Draft EA also fails to mention the bridge over the O'Neill Pumping Plant intake channel towards the O'Neill Forebay. Mr. Smith explains that construction trucks travelling to and from Site 3 must use this bridge to access the Project site. The Draft EA contains no discussion of the bridge or whether it has a weight limit similar to the McCabe Bridge, and proposes no mitigation measures related to this bridge. An EIS must be prepared to remedy these deficiencies in the Draft EA's traffic safety analysis.

### C. There is Substantial Evidence Demonstrating that the Geographic Area Around the Project Site Contains Unique Characteristics That May By Significantly Impacted by the Project.[102]

Coalition-10

Under NEPA, an impact is significant if it adversely affects a unique characteristic of the geographic area surrounding a project site, including park lands and historic or cultural resources.[103] In this case, the Project site is to be located on State park lands within the San Luis SRA and adjacent to O'Neill Forebay, and is located adjacent to the Veterans Administration's San Joaquin National Cemetery.[104]

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[100] See Exhibit B, Smith Comments, p. 2.
[101] *Id.*
[102] 40 C.F.R. § 1508.27(b)(3).
[103] *Id.*
[104] Dowling Associates, Inc., Traffic Impact Study for the Quinto Solar Photovoltaic Project, Merced County, CA; prepared for EMC Planning Group, Inc., July 19, 2011, available at http://www.co.merced.ca.us/pdfs/env_docs/eir/QuintoSolarPVProjectDraftEIRAppendices.pdf.

### 1. *Biological Resources*[105]

Mr. Cashen's comments raise substantial questions about the nature and severity of the Project's impacts on several special-status species that are likely to use the park lands on the Project site as habitat. The Draft EA failed to adequately survey relevant species and failed to adequately discuss these impacts. An EIS must be prepared to address these potentially significant effects.

Coalition-11

The Project site is located "in and adjacent to" the San Luis SRA.[106] The Biological Assessment prepared by the Applicant acknowledges that portions of the Project site and its transmission corridors are managed by California State Parks and the California Department of Fish and Wildlife.[107] As discussed by Mr. Cashen, the Project site is an ecologically critical area for numerous special-status species, including in particular, the federally endangered San Joaquin kit fox. Because the Project will be located in park lands and ecologically critical areas, any adverse impacts to sensitive species which use those lands, and to portions of the San Luis SRA lands themselves that will be altered by the Project, are significant impacts requiring preparation of an EIS.

The Draft EA identifies numerous Federally and state-listed endangered species and/or fully protected species as "having potential habitat in the Project area,"[108] including San Joaquin kit fox (Federally listed as endangered and State listed as threatened); Blunt-nosed leopard lizard (Federal and State listed endangered species and a State fully protected species); American badger (State species of special concern); Burrowing owl (State species of special concern and bird protected under the Migratory Bird Treaty Act ("MBTA")); Tricolored blackbird

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[105] The significant impacts to biological resources discussed herein also constitute significant impacts pursuant to 40 C.F.R. § 1508.27(b)(5) (environmental effects that are uncertain or involve unique or unknown risks) due to Reclamation's failure to include adequate baseline information or protocol surveys for several sensitive species. *See Klamath-Siskiyou Wildlands Center v. U.S. Forest Service* (E.D. Cal. 2004) 373 F.Supp.2d 1069, 1080. These impacts are also significant pursuant to 40 C.F.R. § 1508.27(b)(10) (effects that result in violations of Federal, State, or local laws) due to the likelihood that the Project may result in illegal take of one or more Federally and/or State-listed special-status species.

[106] EA, p. 1.

[107] ESR, Inc., Biological Assessment, U.S. Department of the Interior, Bureau of Reclamation, San Luis Solar Project, EA-14-059 prepared for HORUS Renewables, April 2015 ("Biological Assessment").

[108] EA, p. 51.

(State species of special concern, but was emergency listed as "threatened" by California Department of Fish and Wildlife ("CDFW"); Loggerhead shrike; Grasshopper sparrow; Cackling goose; Northern harrier; numerous protected migratory birds such as the loggerhead shrike, grasshopper sparrow, cackling goose, and northern harrier, all State species of special concern which "could potentially use the solar PV system sites for nesting, dispersal, and foraging;"[109] and numerous raptor species that use non-native annual grassland habitat, trees, and shrubs in the O'Neill Forebay area including red-tailed hawk, Swainson's hawk, white-tailed kite, bald eagle, golden eagle, and songbirds, all protected birds under the MTA.[110]

Coalition-11 cont.

The Draft EA admits that Project construction and operation "have the potential to affect existing biological resources, either through direct or indirect impacts to special-status species or associated habitat,"[111] but provides only a cursory and inaccurate analysis of the impacts to many of these species. As discussed by Mr. Cashen, the Draft EA's incomplete analysis raises a substantial question that the Project will have substantial adverse impacts on several special-status species.

a. San Joaquin Kit Fox

The Draft EA states there are no verified records of the San Joaquin kit fox occurring in the Project region since 1986.[112] Mr. Cashen explains that this is patently incorrect. Mr. Cashen identifies four separate reports of San Joaquin kit fox occurrences in the direct vicinity of the Project area ranging from 2005 to 2015, including sightings of kit fox scat and dens for the adjacent San Luis Transmission Project in 2015.[113]

Coalition-12

The Draft EA similarly concludes that "there is a low potential for San Joaquin kit fox to use the marginal habitat in the action area for movement,

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[109] EA, p. 53.
[110] EA, pp. 51-53.
[111] EA, p. 54.
[112] DEA, p. 52 and Table A-1.
[113] See Exhibit C, Letter from Scott Cashen to Christina Caro, January 11, 2016, Comments on the Draft Environmental Assessment Prepared for the San Luis Solar Project ("Cashen Comments"), pp. 11-12.

denning, foraging, or sheltering."[114] As explained by Mr. Cashen, this statement contradicts readily available scientific evidence, including a 2013 GIS-based habitat model and 2013 mapping of potential "cores" and "patches" of breeding habitat for San Joaquin kit fox.[115] The studies cited by Mr. Cashen, and his own professional opinion, provide substantial evidence that all three Project sites provide both cores (Site 1) and patches (Sites 2 and 3) of suitable breeding habitat for kit fox, and provide a critical linkage of protected lands for kit fox movement.[116]

Coalition-12 cont.

Finally, the Draft EA concludes that the inclusion of Mitigation Measure BIO-1 which requires 4 to 8 inch high openings to be placed between fence mesh and the ground in the Project's perimeter fences, will constitute "appropriate features to allow San Joaquin kit fox (if present) and other wildlife movement in and out of the facility."[117] However, the Draft EA fails to provide any supporting evidence that maintaining this opening below the fencing would eliminate the Project's impact on kit fox movement. By contrast, Mr. Cashen observes that several research studies have demonstrated that kit fox may be sufficiently deterred by the presence of the solar arrays and fencing to avoid the Project entirely, whether or not the fencing provides openings for it to pass through.[118] Mr. Cashen explains that these recent studies are consistent with the San Joaquin kit fox's "strong preference for open habitats that provide unobstructed views of the landscape (for predator detection)." Mr. Cashen concludes that, "even if Project fencing does not create an absolute barrier to kit fox movement, kit foxes may be deterred by the solar arrays because the arrays impair predator detection. This could adversely affect the viability of the movement corridor connecting core

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[114] EA, p. 52.

[115] Exhibit C, Cashen Comments, pp. 11-12.

[116] *Id.*

[117] EA, p. 27, 55.

[118] Exhibit C, Cashen Comments, p. 18, citing Lidicker WZ Jr, WD Koenig. 1996. Responses of Terrestrial Vertebrates to Habitat Edges and Corridors. Pages 85-109 in DR McCullough, editor. Metapopulations and Wildlife Conservation. Island Press, Washington (DC); Bremner-Harrison et al. (2007) (hypothesizing that kit foxes may have avoided the highway crossing structures the authors examined because kit foxes associate increased predation risk with the relatively confined space within the structures).

populations and satellite populations in the northern range, and thus recovery of the species."[119]

Coalition-12 cont.

The Draft EA and Draft FONSI conclude, based on the incomplete information contained in the Draft EA, Biological Assessment and Biological Evaluation, that the Project will not have any significant adverse effects on kit fox.[120] Since there is ample evidence demonstrating precisely the opposite – namely that there is a substantial likelihood that kit fox is present in the Project area and relies on it as a habitat corridor – a substantial question clearly exists as to whether the Project will have substantial adverse impacts on the San Joaquin kit fox.

b. Blunt-nosed Leopard Lizard

Coalition-13

The Blunt-nosed leopard lizard is a federally endangered species that occurs in the San Joaquin Valley area around the Project site.[121] The Biological Assessment and Biological Evaluation recommended mitigation measures directed at reducing Project impacts to the lizard, including submitting pre-construction survey reports to the USFWS and Reclamation for review and approval,[122] and prohibiting ground-disturbing maintenance activities in or adjacent to areas where blunt-nosed leopard lizard has been detected until a USFWS-approved avoidance and monitoring plan is in place.[123] However, these mitigation measures were inexplicably omitted from the Draft EA.

The Biological Assessment and Biological Evaluation's conclusions that the Project will not have significant impacts on the Blunt-nosed leopard lizard are predicated on the adoption of all of the recommended mitigation measures, not just some of them. Mr. Cashen explains that without adopting these additional mitigation measures, as recommended in the Biological Assessment and Biological Evaluation, Reclamation has no basis on which to conclude that the mitigation measures proposed in the Draft EA will adequately mitigate impacts to the lizard, or that the impacts will be less than significant, as proposed in the FONSI.

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[119] Exhibit C, Cashen Comments, p. 18.
[120] EA, p. 52, 54, 55; FONSI, p. 3.
[121] EA, p. 51; see http://www.blm.gov/ca/forms/wildlife/details.php?metode=serial_number&search=2415.
[122] BE, pp. 24 and 26.
[123] BE, p. 26.

c. Golden Eagle

The golden eagle is fully protected under Fish and Game Code Section 3511 and it is afforded protection under the federal Bald and Golden Eagle Protection Act ("Eagle Act"). The Draft EA concludes that golden eagles do not have potential to occur at the Project site. However, as explained by Mr. Cashen, the surveys conducted by the Project biologists failed to follow the requisite USFWS protocols, and thus failed to capture a significant amount of territory that is likely to host golden eagle nests.[124] The Draft EA therefore fails to provide evidence to substantiate its conclusion.

Coalition-14

By contrast, Mr. Cashen explains that the Draft EA's own mapping shows that the Project sites provide foraging habitat for golden eagles.[125] Mr. Cashen explains that the USFWS considers the loss of foraging habitat within 10 miles of a golden eagle nest site to be a potentially significant impact,[126] and that the loss of foraging habitat can lead to reproductive failure and the abandonment of nesting territories.[127] However, the Draft EA provides no information regarding the abundance and distribution of golden eagle nest sites within 10 miles of the Project sites other than the statement that the species has not been documented "in the reviewed database on the sites."[128] This precludes reliable impact analysis and mitigation, and raises substantial questions about the likelihood that the Project will adversely impact this species.

d. Bald Eagle

Coalition-15

The bald eagle is a California Endangered Species, and is fully protected under Fish and Game Code Section 3511, the MBTA, and the Eagle Act.[129] Mr. Cashen explains that the DEA fails to disclose or analyze the potential for the

[124] Exhibit C, Cashen Comments, p. 6.
[125] DEA, Table A-1.
[126] Pagel JE, DM Whittington, GT Allen. 2010 Feb. Interim Golden Eagle inventory and monitoring protocols; and other recommendations. Division of Migratory Birds, United States Fish and Wildlife Service. p. 2.
[127] Exhibit C, Cashen Comments, p. 7.
[128] DEA, Table A-1.
[129] Exhibit C, Cashen Comments, p. 7; EA, p. 53.

Coalition-15 cont.

Project to affect important wintering habitat for bald eagles, and fails to discuss numerous records of bald eagles occurring at the O'Neill Forebay during the winter.[130]

e. Red-Tailed Hawk

Coalition-16

The Draft EA contains inaccurate and incomplete information about the presence of red-tailed hawk in and around the Project site. The Draft EA asserts that the only evidence of red-tailed hawk near the Project site was a single nest detected at the Santa Nella golf course.[131] This information is incorrect. As Mr. Cashen explains, the same biologists (retained for the nearby Quinto Solar Project) detected at least three red-tailed hawk nests, two Swainson's hawk nests, two great horned owl nests, and a white-tailed kite nest, and observed northern harrier behavior that suggested the species was nesting in the area.[132] Thus, the same evidence that the Draft EA purportedly relies upon to conclude that there is minimal presence of red-tailed hawk in the vicinity of the Project area contradicts the Draft EA's conclusion. This raises a substantial question as to the accuracy of the conclusions in the Draft EA.

f. Swainson's Hawk

Coalition-17

Swainson's Hawk is listed as Threatened under the California Endangered Species Act, and is protected under the MBTA.[133] The Draft EA concludes that there is "no nesting potential on [the Project] sites" and that occurrence of Swainson's hawks would be limited to "transient flyover and foraging potential only."[134] Mr. Cashen explains that Reclamation failed to prepare any protocol surveys for Swainson's hawk nest sites within 0.5-mile of the Project sites, and the Draft EA fails to include any affirmative evidence (other than a failure to look) to

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[130] Exhibit C, Cashen Comments, p. 7, citing eBird. 2015. eBird: An online database of bird distribution and abundance [web application]. eBird, Ithaca, New York. Available at: <http://www.ebird.org>. (Accessed: 2016 Jan 6).

[131] ESR, Inc. 2015. Biological Assessment, USDI Bureau of Reclamation San Luis Solar Project. p. 60.

[132] Exhibit C, Cashen Comments, p. 4, citing EMC Planning Group Inc. 2012. Draft Environmental Impact Report for the Quinto Solar PV Project. Appendices C and D to Appendix E.

[133] *Id.*; EA, p. 53.

[134] DEA, Table A-1.

support the Draft EA's conclusion that Swainson's Hawk is unlikely to frequent the Project site.

Coalition-17 cont.

By contrast, Mr. Cashen cites to three separate recent scientific surveys which documented Swainson's hawk nest sites in the immediate vicinity of the Project site.[135] This evidence raises a substantial question as to the likelihood of Swainson's hawk to be present at the Project site, and to be adversely affected by the Project.

g. White-tailed Kite

Coalition-18

The white-tailed kite is fully protected under Cal. Fish and Game Code Section 3511, and was recently detected at the northwest tip of O'Neill Forebay during surveys for the Quinto Solar PV Project site.[136] Nevertheless, the DEA fails to disclose or analyze potentially significant effects of the Project on the white-tailed kite.

h. Ferruginous Hawk

Coalition-19

The Ferruginous hawk is a USFWS Bird of Conversation Concern.[137] Mr. Cashen explains that there are numerous records of ferruginous hawks occurring in the Project area.[138] The Draft EA fails to discuss recent hawk sighting records, and instead erroneously concludes that the species is not present at the Project site because no nests were observed during Project surveys.[139] Mr. Cashen explains that the Draft EA's conclusion is based on an inaccurate analysis because Ferruginous hawk does not nest in California; instead, it forages here in winter.[140]

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[135] Exhibit C, Cashen Comments, pp. 5-6.
[136] EMC Planning Group Inc. 2012. Draft Environmental Impact Report for the Quinto Solar PV Project. Appendix C to Appendix E, Figure 8.
[137] EA, Table A-2.
[138] Exhibit C, Cashen Comments, p. 8, citing California Natural Diversity Database. 2016 Jan 6. RareFind 5 [Internet]. California Department of Fish and Wildlife. *See also* eBird. 2016. eBird: An online database of bird distribution and abundance [web application]. eBird, Ithaca, New York. Available at: <http://www.ebird.org>. (Accessed: 2016 Jan 7).
[139] EA, Table A-1.
[140] Exhibit C, Cashen Comments, p. 8.

Coalition-19 cont.

Mr. Cashen concludes that Project impacts are potentially significant because ferruginous hawks "have a low threshold of tolerance to urban landscapes.....,and are intolerant of even small amounts of urban development, perhaps as little as 5% to 7%.[141] Once constructed, the Project will cover 246.5 acres of what is currently park lands with an industrial solar facility. This raises a substantial question as to whether development of the Project will be a deterrent, and thus a potentially significant impact, to Ferruginous hawks that frequent the Project site.

i. Northern Harrier

Coalition-20

The northern harrier is a California Species of Special Concern, and protected under the MBTA.[142] The Biological Assessment explains no "large stick nests" were observed during the Project surveys, and that northern harriers are therefore unlikely to nest at the Project sites.[143] Mr. Cashen points out that northern harriers do not make "large stick nests."[144] Therefore, Project biologists were looking for the wrong indicator for the presence of the species. This raises a substantial question as to whether the impacts to northern harrier were adequately evaluated, and whether the species is, in fact, present at the Project site.

j. Tri-colored Blackbird

Coalition-21

The tricolored blackbird is protected under the California Endangered Species Act.[145] A 2013 study prepared by Reclamation for a different project observed approximately 200 tricolored blackbirds near the Project site,[146] and a preceding study prepared in 2003 documented 1,000 tricolored blackbirds along the south shore of O'Neill Forebay, near the Project site.[147] The Draft EA fails to mention these sightings, apparently because the wetland areas around the O'Neill

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[141] *Ibid.*

[142] EA, p. 53.

[143] *Ibid*, Table 1.

[144] Exhibit C, Cashen Comments, p. 8.

[145] Exhibit C, Cashen Comments, p. 9.

[146] *Id.*, citing Bureau of Reclamation and California Department of Parks and Recreation. 2013. Final Resource Management Plan/General Plan and Final Environmental Impact Statement/Environmental Impact Report. Appendix B: Biological Survey Forms.

[147] *Id.*

Coalition-21 cont.

Forebay are not within the Project's development acreage. The Draft EA therefore concluded that there are no tricolored blackbirds present at the Project site, and the Project therefore will not impact them. This conclusion fails to take into account the impacts that the Project will have on the park lands that are in the immediate geographic vicinity of the Project sites, and therefore constitutes a failure to consider a significant impact required by NEPA.

k. Aquatic Amphibians

Coalition-22

The Draft EA states there is no suitable habitat for the California red-legged frog, California tiger salamander, western spadefoot, or western pond turtle at the Project sites, and that the Project therefore will not impact these species.[148] Mr. Cashen explains that this statement is incorrect, because the Project sites provide suitable terrestrial habitat for the species where aquatic habitat is not available.[149] The Draft EA's conclusory statement reflects a lack of familiarity with the species' habitat preferences, and therefore raises a substantial question as to whether Reclamation has adequately identified the potentially significant impacts the Project may have in reducing available terrestrial habitat for these species.

l. Special Status Vegetation

Coalition-23

The Draft EA fails to mention the presence of two sensitive vegetation communities that occur along the Project's proposed gen-tie line - (1) Great Valley Riparian Forest, and (2) Freshwater Marsh.[150] Instead, the Draft EA merely concludes that, "[a]lthough construction activities would temporarily disturb the marginal habitat, this impact is considered minimal due to the current disturbed nature of the solar PV system sites."[151] Because the Draft EA does not disclose the presence of sensitive natural vegetation communities within the Project's proposed gen-tie line corridor, it fails to analyze Project impacts to those communities, thus

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[148] EA, Table A-1.

[149] Exhibit C, Cashen Comments, p. 9.

[150] WAPA and SLDMWA. 2015. San Luis Transmission Project. Draft Environmental Impact Statement/Environmental Impact Report. Prepared for Western Area Power Administration and San Luis and Delta-Mendota Water Authority by Aspen Environmental Group. Appendix C, Figure 3.

[151] DEA, p. 54.

raising a substantial question about whether the Project will adversely impact the Great Valley Riparian Forest and Freshwater Marsh.

Coalition-23 cont.

Mr. Cashen's comments constitute substantial evidence of the presence of unique characteristics of the geographic area in and around the Project site that Reclamation failed to consider in preparing the Draft EA. This raises substantial questions as to whether the Project may cause substantial adverse effects on numerous sensitive species. An EIS must be prepared to answer these questions.

*2. Construction Traffic*[152]

Mr. Smith concludes that construction traffic at Project Sites 2 and 3 is likely to interfere significantly with the operations of the adjacent San Joaquin Valley National Cemetery, a United States National Cemetery operated by the Department of Veterans Affairs, and a cultural resource of national significance. This unusual impact raises a substantial question that the Project may have significant, adverse traffic impacts that the Draft EA fails to discuss or mitigate.

Coalition-24

The Cemetery is located at 32053 West McCabe Road. Mr. Smith concludes that, based on the turn point at the west end of the McCabe Road bridge over the Delta-Mendota Canal to the access road used to access Project Sites 2 and 3, there is a substantial likelihood that heavy trucks accessing or egressing those sites during Project construction will interfere with funeral corteges coming to or departing the cemetery.[153]

The Cemetery is heavily trafficked during the week. It serves as the site of internment for the remains of 30,000 veterans and some family members. On the average, over its 25 year history, in excess of 1200 internments per year take place, excluding Sundays. This is an average of nearly 4 internments per day.

During Project construction, the on-site workforce is expected to average approximately 100 employees, with a peak on-site workforce of approximately 150 employees. The Draft EA explains that, at peak construction, this will generate at

[152] The significant impacts identified herein also constitute significant impacts pursuant to 40 C.F.R. § 1508.27(b)(8) (actions which may cause degradation to significant scientific, cultural, or historic resources).
[153] Exhibit B, Smith Comments, p. 3.

least 20 one-way truck trips per day.[154] Mr. Smith concludes that the magnitude of traffic from Project construction is likely to interfere with funeral processions and other ingress and egress operations at the Cemetery.

Coalition-24 cont.

Mr. Smith also explains that, during the period of construction at Project Site 1, the commute traffic and truck traffic through the Madeiros Campground Area will render this area very unattractive and unsuitable for use as a recreational campsite. None of Mitigation Measures Rec -1, Rec-2 or Rec-3 effectively addresses this effect. Mr. Smith concludes that an EIS must be prepared to disclose that construction activity will create a de-facto if not absolute temporary closure of the Madeiros Campground,[155] and proposes that Reclamation implement specific mitigation to address these undesired adverse effects.

### D. The Draft EA's Failure to Describe Decommissioning Raises a Substantial Question as to the Project's Potentially Significant Unknown Risks.[156]

NEPA requires that an environmental document analyze all stages of a project to the extent they are interdependent.[157] The Draft EA explains that the final component of the Project will be decommissioning,[158] but fails to include any meaningful analysis of the steps required to decommission the Project, and fails to discuss the impacts associated with the decommissioning process. The Draft EA simply states that "[a]t the end of the Project's useful life, the Applicant would decommission and completely remove the PV systems and supporting electrical and facility systems"[159] This discussion fails to comply with NEPA.

Coalition-25

The Project would be operational for 30 years and has three distinct phases: construction, operation/maintenance and decommissioning.[160] The EA provides no description whatsoever of even the general activities that would be involved with decommissioning the Project, such as dismantling the solar panels, disposal of solar panels and battery storage components, or of any steps that would be taken to

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[154] EA, p. 125.
[155] Exhibit B, Smith Comments, p. 3.
[156] 40 C.F.R. § 1508.27(b)(5).
[157] *Thomas v. Peterson* 753 F.2d 754, 760(9th Cir. 1985).
[158] EA, p. 35.
[159] EA, p. 35.
[160] EA, p. 137.

return the Project land to its natural state. The Draft EA also does not describe the length of time involved in decommissioning, nor does it include any analysis of air quality, biological impacts, or traffic impacts of this phase of the Project.

Decommissioning is commonly analyzed in environmental documents prepared for solar projects by other regulatory agencies, such as the California Energy Commission.[161] These studies have found that decommissioning activities are analogous to construction activities in terms of the impacts they create.[162] Evidence in the Draft EA suggests that decommissioning will have impacts similar to the construction phase of the Project, and will entail removal of both ground-level and underground components, thus involving soil disturbing activities.[163] There can be no reasonable question that, if construction activities will result in significant impacts to air quality, biological resources and traffic, then surely decommissioning activities will as well. Thus, just as the construction phase of the Project will have disruptive and potentially significant impacts on air quality, biological resources, traffic, and other areas, decommissioning of the Project is likely to have similar impacts.

Coalition-25 cont.

Ms. Jaeger, Mr. Cashen, and Mr. Smith have all raised substantial questions as to the potential adverse impacts of the decommissioning phase of the Project. Ms. Jaeger explains that decommissioning "can include a range of activities such as removal of all structures, foundations, wires and hazardous materials, as well as restoration of site vegetation."[164] Ms. Jaeger further describes the emissions that are commonly generated from decommissioning of industrial sites like the Project site, which are identical to construction emissions. "Emissions from decommissioning activities include truck and equipment traffic emissions, diesel emissions from generator equipment and fugitive dust emissions from land clearing, panel and support structure removal, backfilling, dumping, and restoration of disturbed areas through grading, seeding, and planting."[165] These emissions were not discussed or quantified in the Draft EA. Given SWAPE's conclusion that the

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[161] CEC has included extensive analyses of decommissioning in their EIRs for renewable energy projects. See Exhibit D.
[162] *Id.*
[163] EA, pp. 1-35, Table 11.
[164] Exhibit A, SWAPE Comments, p. 18, citing Vermont Law School Institute for Energy and the Environment: Decommissioning Renewable Energy Facilities, p. 1.
[165] *Id.*, citing Solar Energy Decommissioning/Site Reclamation Impacts, *available at:* http://teeic.anl.gov/er/solar/impact/decom/index.cfm, Accessed January 7, 2016

construction phase of the Project will have significant air pollution emissions, it is reasonable to expect that the decommissioning phase of the Project will have similar significant air quality impacts. An EIS must be prepared to analyze these impacts.

Mr. Cashen explains that Burrowing owls, nesting birds, San Joaquin kit fox and other sensitive resources may colonize or re-colonize the Project sites prior to decommissioning.[166] He opines that decommissioning activities have the potential to impact these species by collapsing burrows and/or disturbing nest sites. Because the Draft EA does not analyze impacts associated with decommissioning, it fails to require any mitigation for significant impacts that may occur during the decommissioning process. As a result, Reclamation has no evidence on which to conclude that Project decommissioning activities would have insignificant effects to sensitive biological resources.[167]

Coalition-25 cont.

Finally, Mr. Smith explains that the decommissioning phase of the Project is likely to require a similar number of large trucks, vehicle trips, and construction equipment as the construction phase of the Project.[168] In other words, in order to reclaim the Project site and return it to its natural state, all of the equipment that was brought onto the Project sites to construct the solar and battery storage facilities will have to be removed. The Quinto traffic study on which the Draft EA relies failed to analyze the decommissioning phase of the Quinto Project, so the Draft EA contains no information or even related discussion of these impacts. Traffic in the Project region is anticipated to increase over the next 30 years.[169] The traffic impacts of the decommissioning phase are therefore likely to be even more significant than the construction phase. These impacts must be analyzed in an EIS.

### E. There is Substantial Evidence that the Project Will Have Potentially Significant Cumulative Impacts that the Draft EA Failed to Analyze.[170]

Coalition-26

In evaluating significance, NEPA requires consideration of whether the action is related to other actions with individually insignificant but cumulatively

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[166] Exhibit C, Cashen Comments, p. 27.
[167] *Id.*
[168] Exhibit B, Smith Comments, p. 5.
[169] *Id.*
[170] 40 C.F.R. § 1508.27(b)(7).

Coalition-26 cont.

significant impacts.[171] The lead agency must make a finding of significance if it is "reasonable to anticipate a cumulatively significant impact on the environment."[172] The CEQ regulations further require that significance "cannot be avoided by terming an action temporary or by breaking it down into small component parts."[173]

There are substantial questions that the Project will have significant cumulative impacts that the Draft EA has failed to identify.

*1. Air Quality*

Coalition-27

As discussed above, the Draft EA admits that, during construction, the Project "would temporarily contribute to cumulative air quality emissions in the San Joaquin Valley Air Pollution Control District."[174] The Draft EA makes no attempt to quantify these cumulative emissions. Instead, the Draft EA erroneously concludes that, because the Project would provide an overall beneficial impact on air quality by reducing GHG emissions, that the Project's cumulative impact is "therefore considered beneficial."[175]

This conclusion is patently incorrect. Construction emissions will contribute to already deteriorated air quality within the air basin. As explained by SJVAPD, even if a project's individual emissions are below the District thresholds of significance, "[t]his does not imply that if the project is below all such significance thresholds, it cannot be cumulatively significant."[176] The Project's incremental contribution to these impacts must be quantified. Indeed, the Draft EA failed to mention that other concurrent construction projects in the region have been determined to have significant air quality impacts.[177] If another project's individual

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[171] *Id.*
[172] *Id.*
[173] *Id.*
[174] EA, p. 69.
[175] *Id.*
[176] See SJVAPD Guidance at pp. 65-66, available at http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf
[177] See Quinto Solar Project Draft and Final EIR and Appendices, available at http://www.co.merced.ca.us/pdfs/env_docs/eir/quinto_solar_pv_project_final_eir_cup10_008.pdf (selected pages are attahed hereto as Exhibit E); see San Luis Transmission Line Project Draft EIS/EIR, available at https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&cad=rja&uact=8&ved=0ahUKEwj0nZTQ5KzKAhUJ32MKHZgjBVUQFggiMAE&url=https%3A%2F%2Fwww.wapa.gov%2Fregio

emissions of a particular pollutant are significant, then it follows that the Project's cumulative contribution to the same pollutant must also be deemed significant.

SWAPE found that the Project will have significant individual NOx construction emissions that exceed the SJVAPD significance threshold. As explained by SJVAPCD, if the Project's individual impact for a non-attainment pollutant is significant, its cumulative impact is therefore significant as well.[178] Since NOx is an ozone precursor, and the San Joaquin air basin is in severe non-attainment for ozone, the Project's cumulative contribution to construction NOx emissions is therefore a significant cumulative impact by SJVAPD's definition. This must be disclosed as a significant impact in an EIS, and mitigated. The Applicant must also comply with SJVAPCD Rule 9510 by consulting with SJVAPCD regarding entering into a voluntary emissions reduction agreement for the Project's NOX emissions.

Coalition-27 cont.

Finally, NOx is a criteria air pollutant, not a GHG. The Draft EA's conclusion that the Project will have a net beneficial impact on regional GHG emissions is irrelevant to an analysis of the Project's cumulative contribution to NOx emissions and emissions of other non-GHG pollutants.

*2. Biological Resources*

The Draft EA concludes that the Project's cumulative impacts on special-status wildlife species from construction and operation "would be minor."[179] The Draft EA mentions other regional development projects that may contribute to cumulative impacts on special-status species, such as the Villages of Laguna San Luis Community Plan, the Santa Nella Community Specific Plan, the Quinto Solar Project, and the San Luis Transmission Project.[180] However, the Draft EA fails to quantify the impacts of the Project in relation to any of these other development projects. The Draft EA then erroneously concludes, without any supporting

Coalition-28

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ns%2FSN%2Fenvironment%2FDocuments%2Fsan-luis-draft-eis-eir-main-text.pdf&usg=AFQjCNFXAM4NsCRm_tv53o6RzwP-zOYQFA&bvm=bv.112064104,d.cGc. (selected pages are attached hereto as Exhibit F).

[178] Id. at p. 66 ("if project specific emissions exceed the thresholds of significance for criteria pollutants the project would be expected to result in a cumulatively considerable net increase of any criteria pollutant for which the District is in non-attainment under applicable Federal or State ambient air quality standards.").

[179] EA, p. 56.

[180] *Id.* at pp. 56-57.

evidence, that because these other projects must mitigate their own impacts to special-status species, the Project will therefore not have a cumulative contribution to impacts on those species. This conclusion applies the wrong legal standard and is unsupported by any evidence in the record.

Coalition-28 cont.

By contrast, Mr. Cashen presented substantial evidence that numerous special-status wildlife species are likely to use the Project site as habitat, including San Joaquin kit fox, blunt-nosed leopard lizard, bald and golden eagles, and several other State-listed special status species.[181] Mr. Cashen concludes that the Project is likely to have significant adverse impacts on these species that the Draft EA fails to mitigate. Mr. Cashen's comments constitute substantial evidence that the Project will have significant adverse impacts on numerous biological resources. Since the Project's individual impacts will be significant, its cumulative impacts are therefore also significant. This fact must be disclosed in an EIS.

Mr. Cashen further explains that the Draft EA's cumulative impact analysis for biological resources is "grossly insufficient" for several reasons.[182] First, the Draft EA does not identify or justify its geographic scope of analysis, and ignores numerous other past projects that contribute to cumulative impacts (e.g., San Luis Reservoir and O'Neill Forebay, Delta-Mendota Canal, Interstate 5, etc.). Second, the Draft EA fails to provide any quantitative impact data for the projects considered in its cumulative impacts analysis, and fails to identify their geographic proximity to the Project. Third, as discussed above, the Draft EA conclusively assumes that the Project will not have any cumulative impacts on San Joaquin kit fox or other species because other projects will mitigate their own impacts. And fourth, the Draft EA contains no quantitative comparison of the Project's impacts combined with impact data from other projects. An EIS must be prepared to correct these deficiencies in the Draft EA's cumulative impact analysis.

Additionally, it is premature for the Draft EA to make any conclusion regarding the degree of significance of its individual and cumulative impacts to Federally listed special-status species because the Applicant is still in preliminary consultation stages with USFWS.[183] If USFWS determines that formal consultation is necessary, and a subsequent biological opinion concludes that the Project presents a likelihood of take of a listed species or its habitat, Reclamation will be

[181] See Exhibit C, Cashen Comments, pp. 1-20.
[182] See Exhibit C, Cashen Comments, p. 21.
[183] See Biological Assessment, p. 1; EA, p. 139.

Coalition-28 cont.

required to declare that the Project has a significant impact on that species, and will be required to mitigate those impacts to prevent illegal take. An EIS should be prepared to incorporate the results of the Applicant's consultation with USFWS.

## F. There is Substantial Evidence that the Project Threatens Violation of Federal, State, and Local Laws and Requirements.[184]

### *1. Air Quality*

Coalition-29

As discussed above, the Project will have significant construction NOx emissions that exceed SJVAPD significance thresholds. NOx is a criteria air pollutant for which there is a National Ambient Air Quality Standard ("NAAQS") under the federal Clean Air Act. Unmitigated NOx emissions that exceed SJVAPD significance thresholds contribute to exceedences of the NAAQS for NOx. Therefore, as currently proposed, the Project will contribute to unmitigated violations of the Clean Air Act. This is a significant impact. In order to ensure that Project complies with the Clean Air Act, the Applicant must also consult with SJVAPCD pursuant to SJVAPCD Rule 9510, a federal law, regarding entering into a voluntary emissions reduction agreement for the Project's NOX emissions.

### *2. Biological Resources*

Coalition-30

As discussed above, there is substantial evidence that the Project may have adverse impacts on several special-status species. Illegal take of any species listed as endangered or threatened under the Federal ESA would constitute a violation of Federal law. Illegal take of any species listed as endangered or threatened under the State ESA would constitute a violation of State law. Further analysis by Reclamation, and consultation with USFWS, is required to accurately ascertain the extent of these potential violations, and to design effective mitigation measures or avoidance techniques that will ensure that the Project complies with Federal and State species protection laws.

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[184] 40 C.F.R. § 1508.27(b)(10).

*3. Hazardous Materials*

As explained by Mr. Hagemann, in California, all discarded batteries are considered to be hazardous waste.[185] Disposal of batteries used for energy storage at the Project site must therefore comply with State Universal Waste regulations.[186] Failure to comply with these regulations would constitute a violation of State law, and is therefore a potentially significant impact. The Draft EA fails to describe the disposal methods planned for expended batteries used for the BESS, which raises a substantial question as to whether the Project will comply with these key State laws. An EIS must be prepared to include a battery disposal plan that complies with State law.

Coalition-31

*4. Local Plans*

The Project area is located in the County of Merced and the San Luis Reservoir SRA Resource Management Plan/General Plan ("RMP/GP"), which the Draft EA describes as "the guiding document for these lands.[187] The Draft EA fails to provide evidence that Reclamation has adhered to key provisions of RMP/GP, including implementation of focused surveys for special-status species using USFWS protocol.[188] Reclamation may not approve the Project unless and until it provides substantial evidence that the Project will not violate the RMP/GP.

Coalition-32

## V. RECLAMATION IMPROPERLY SEGMENTED ITS ENVIRONMENTAL REVIEW OF THE PROJECT FROM OTHER CONNECTED ACTIONS

Coalition-33

Reclamation improperly segmented its environmental review of the Project from the closely connected San Luis Transmission Line Project.

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[185] See Exhibit A, SWAPE Comments, p. 4; http://www.calrecycle.ca.gov/reducewaste/Batteries/
[186] 22 CCR §§ 66261.9 et seq.; 23 CCR §§ 66273.1 et seq.
[187] EA, p. 3.
[188] Bureau of Reclamation and California Department of Parks and Recreation. 2013. Final Resource Management Plan/General Plan and Final Environmental Impact Statement/Environmental Impact Report. p. 4-12.

NEPA prohibits "piecemealing" and requires the preparation of a single or EIS for geographically related projects.[189] Factors considered by the courts include factors include whether the segment selected has independent utility, serves local needs, has logical termini, makes the construction of the second project likely, and allows adequate consideration of alternatives.[190]

In *NRDC*, a local federal power agency branch, the Bonneville Power Authority ("BPA"), developed a cooperative program with private and public utilities to plan, construct, and operate regional power facilities in Oregon. Under the program, the utilities were to build the required power plants and BPA would provide the transmission grid and sell the power. The court held that a single EIS was required to analyze all components of the power distribution chain, because the planning, construction, and operation of the region's power facilities were being undertaken "as if they were under a single ownership."[191]

Coalition-33 cont.

Similarly here, the Draft EA discloses that one of the three principal purposes of the Project is to "transmit [power] over the WAPA[192] transmission system using the transmission line that is being constructed to serve the San Luis Unit" in order to make the San Luis Transmission Line Project "more cost efficient."[193] The San Luis Transmission Line Project in turn identifies its principal purpose being "to support Reclamation's continued economic delivery of federal water after the [existing] PG&E contract expires."[194] Although the EIS/EIR for the Transmission Line Project was prepared by WAPA, the purpose of the project is to satisfy Reclamation's power needs. Thus, the transmission line is effectively Reclamation's project. The instant Project was designed to reduce the cost of constructing Reclamation's transmission line. The two projects are therefore being undertaken "as if they were under a single ownership."[195] The two projects are also

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[189] *See Klamath-Siskiyou Wildlands Center v. BLM*, 387 F.3d 989 (9th Cir. 2004 (actions held similar because adjacent, in same watershed, are to be harvested under identical prescription, and supervised by same personnel); *NRDC v. Hodel*, 435 F. Supp. 590 (S. Or. 1977, aff'd 626 F.2d 134 (9th Cir. 1980); Klamath-Siskiyou

[190] *Id.*

[191] 435 F.Supp. at 592.

[192] The Western Area Power Administration ("WAPA") is the local arm of the Department of Energy that is to sell and deliver hydropower across 15 central and western states. See https://www.wapa.gov/About/history/Pages/History.aspx.

[193] EA, p. 4.

[194] SLTP EIS/EIR, http://www.sltpeis-eir.com/.

[195] 435 F.Supp. at 592.

clearly geographically connected, because the Project will physically connect to the transmission line in order to transmit power. Under NEPA, these two projects must be analyzed together in a single EIS.

Coalition-33 cont.

Consideration of both projects in a single environmental document is also feasible, and would ensure that the instant Project complies with both Federal and State environmental laws. The Draft EIS/EIR for the San Luis Transmission Line Project was released in July 2015.[196] The Final EIS/EIS has not been released yet. The environmental review for both projects is therefore being undertaken concurrently, and should be consolidated. Additionally, the San Luis Transmission Line Project EIS/EIR is a joint NEPA-CEQA document. Reclamation cannot escape a duty to consider the Project's impacts under CEQA by claiming that the two projects are not connected.

## VI. RECLAMATION FAILED TO TAKE A HARD LOOK AT THE PROJECT'S POTENTIALLY SIGNIFICANT IMPACTS

Coalition-34

NEPA requires that agencies take a "hard look" at the environmental consequences of a proposed action.[197] A hard look is defined as a "reasoned analysis containing quantitative or detailed qualitative information."[198] The level of detail must be sufficient to support reasoned conclusions by comparing the amount and the degree of the impact caused by the proposed action and the alternatives.[199] An EIS must provide a "full and fair discussion of significant environmental impacts and shall inform the decision-makers and the public of the reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment."[200] "General statements about 'possible' effects and 'some risk' do not constitute a 'hard look' absent a justification regarding why more definitive

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196 See http://www.sltpeis-eir.com/projectdocs.html.

197 *Robertson, supra,* 490 U.S. at 350 (1989); *Dubois, supra,* 102 F.3d at 1284 (1st. Cir. 1996); see also *South Fork Band Council Of Western Shoshone Of Nevada v. U.S. Dept. of Interior,* 588 F.3d 718, 727 (9th Cir. 2009) ["NEPA requires that a hard look be taken, if possible, *before* the environmentally harmful actions are put into effect"].

198 Bureau of Land Management, NEPA Handbook, P. 55 (Jan. 2008) ("NEPA Handbook"), available at: http://www.blm.gov/pgdata/etc/medialib/blm/wo/Information_Resources_Management/policy/blm_handbook.Par.24487.File.dat/h1790-1-2008-1.pdf.

199 NEPA Handbook, p. 55; *see also* 40 C.F.R. § 1502.1 (2009).

200 40 CFR 1502.1.

information could not be provided."[201] "[L]ack of knowledge does not excuse the preparation of an EIS; rather it requires [the agency] to do the necessary work to obtain it."[202]

Coalition-34 cont.

As discussed above, the threshold problem with the Draft EA is that Reclamation should have prepared an EIS to analyze the Project's impacts. It did not. As a result, Reclamation failed to take the "hard look" at impacts that is required by NEPA. In addition to the issues discussed in Section IV above, Reclamation failed to take a hard look at the following impacts.

### A. Avian Collision Impacts.

Coalition-35

The Draft EA provides an incomplete analysis of the risks to birds associated with collision with solar panels and transmission lines at the Project site. The presence of dead and injured birds at solar facilities operating (or under construction) in California demonstrates that solar arrays present a collision hazard to birds.[203] At PV facilities, birds appear to mistake the broad reflective surfaces of the solar arrays for water, trees, and other attractive habitat.[204] When this occurs, the birds become susceptible to mortality by: (a) colliding with the solar arrays; or (b) becoming stranded (often injured) on a substrate from which they cannot take flight, thereby becoming susceptible to predation and starvation.[205]

There is also recent evidence that PV solar panels produce polarized light pollution that attracts insects, which in turn attract insect-eating birds.[206] Those birds then become susceptible to injury or death because they cannot distinguish insects on a PV panel that reflects attractive habitat from insects that really are on (or in) attractive habitat. Dead and injured insectivores then attract avian predators and scavengers, which too become susceptible to collision with the PV

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[201] *Neighbors of Cuddy Mountain v. U.S. Forest Service*, 137 F.3d 1372, 1380 (9th Cir. 1998).
[202] *National Parks & Conservation Association v. Babbitt*, 241 F.3d 722, 733 (9th Cir.2001).
[203] Kagan RA, TC Viner, PW Trail, EO Espinoza. 2014. Avian Mortality at Solar Energy Facilities in Southern California: A Preliminary Analysis. National Fish and Wildlife Forensics Laboratory. 28 pp.
[204] *Ibid.*
[205] *Ibid.*
[206] *Ibid.*

panels and other project features. As Kagan et al. (2014) reported, this creates an entire food chain vulnerable to injury and death.[207]

The Draft EA concludes, without supporting evidence, that the Project's solar PV panels would contribute minimally to potential lake effects and resulting bird mortality.[208] Mr. Cashen explains that the Draft EA's conclusion is flawed and unsupported for several reasons. First, the Draft EA provides no evidence that the solar PV panels at the Project site would be any less hazardous than the PV panels at other sites that have experienced avian mortality. By contrast, Figure 2 of the Draft EA actually demonstrates that high reflectance can occur from the type of PV panels planned for use at the Project site.[209] Second, the Draft EA fails to mention that the dark surface of PV panels can produce high levels of polarized light pollution ("PLP") that appear to be water bodies to wildlife and can become ecological traps for insects.[210] Third, Reclamation fails to justify its conclusion that "the presence of San Luis Reservoir, O'Neill Forebay, canals, ditches, and other water conveyance systems" would reduce the potential for avian mortality. To the contrary, there is evidence that solar facilities sited in close proximity to open water (or agricultural fields) may cause high levels of avian mortality.[211] Finally, the Draft EA fails entirely to analyze avail collision with transmission lines and power lines that will be installed for the Project.

Coalition-35 cont.

Substantial evidence demonstrates that impacts from avian collisions are potentially significant and must be mitigated. Reclamation must prepare an EIS to analyze these hazards as potentially significant impacts, and it must provide adequate mitigation.

## B. Construction Traffic.

Coalition-36

The EA's assessment of potential traffic impacts of this Project relies primarily on a traffic study prepared in support of the environmental analysis of an

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[207] *Ibid.*

[208] Draft EA, p. 56.

[209] Exhibit C, Cashen Comments, p. 20.

[210] Lovich JE, JR Ennen. 2011.Wildlife Conservation and Solar Energy Development in the Desert Southwest, United States. BioScience 61(12): 982-992.

[211] Exhibit C, Cashen Comments, p. 20-21, citing McCrary MD, RT McKernan, RW Schreiber, WD Wagner, TC Sciarrotta. 1986. Avian Mortality at a Solar Energy Power Plant. Journal of Field Ornithology 57(2):135-141.

entirely separate project, the July 19, 2011 Traffic Impact Study for the Quinto Solar Photovoltaic Project by Dowling Associates, Inc. Mr. Smith reviewed the Draft EA, the Quinto traffic study, and the other traffic data provided in the Draft EA. He concludes that reliance on the Quinto traffic study is entirely inadequate to assess the traffic impacts from this Project.

Coalition-36 cont.

As Mr. Smith explains, while the Quinto Project analyzed traffic access from State Highway 33 via McCabe Road, similarly to the San Luis Project, it did not address the specific problems associated with bridge passage and congestion associated with this Project.[212] Moreover, none of the Project team listed on Section 5 (page 141) of the Draft EA is apparently qualified to assess whether that earlier traffic study of a different project is adequate to disclose the traffic impacts of the San Luis Solar Project, because none are identified as holding credentials as a registered civil or traffic engineer. The Draft EA therefore failed to take a hard look at the Project's traffic impacts.

## VII. THE MITIGATION MEAURES PROPOSED IN THE DRAFT EA ARE INSUFFICIENT TO SUPPORT A FINDING OF NO SIGNIFICANT IMPACT

Coalition-37

CEQ generally disfavors reliance on mitigation measures to support a FONSI.[213] Mitigation measures may only be used to support a FONSI where the measures are thoroughly supported with analytical data, where the agency has done a thorough job of evaluating all environmental consequences of the proposed action, and where the measures contain sufficient supporting evidence to demonstrate that they will render the impact so minor that an EIS is not required.[214] While the agency is not necessarily required to develop a complete mitigation plan under NEPA, proposed mitigation measures must be "developed to a reasonable degree."[215] A "perfunctory description...or mere listing of mitigation measures, without supporting analytical data is insufficient to support a finding of no significant impact."[216]

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[212] See Exhibit B, Smith Comments, pp. 1-4.
[213] See CEQ, Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations, 46 Fed. Reg. 18026 (March 23, 1981) ("Forty Questions"), at Question 40, available at http://energy.gov/sites/prod/files/G-CEQ-40Questions.pdf.
[214] *National Parks & Conservation Ass'n v. Babbitt* (9th Cir. 2001) 241 F.3d 722, 734.
[215] *Id.*
[216] *Id.*, quoting *Idaho Sporting Congress v. Thomas*, 137 F.3d 1146, 1151 (9th Cir.1998).

In evaluating the sufficiency of mitigation measures, the courts consider whether the measure constitutes "an adequate buffer against the negative impacts that may result from the authorized activity."[217] In other words, the agency must demonstrate to the public that the mitigation measures proposed to support a FONSI will render such impacts "so minor as to not warrant an EIS."[218] Uncertainty about the efficacy of a proposed mitigation measure alone raises a substantial question about a project's effect on the resource to which the mitigation measure is intended to apply.[219]

Recent DOI Guidance also requires departments within DOI, including Reclamation, to follow a "mitigation hierarchy" to "avoid, minimize, and mitigate" environmental impacts using landscape-scale mitigation for management of Federal lands, waters, and resources.[220] "Mitigation hierarchy" is defined as a 3-step "sequenced approach" to addressing the foreseeable impacts to resources and their values, services, and functions. Guidance, p. 3. First, the Guidance states that impacts "should be avoided by altering project design, location, or declining to authorize the project." *Id.* Next impacts should be minimized through project modifications and permit conditions. *Id.* Last, if neither of the first two options are viable, "only then [should impacts be] compensated for remaining unavoidable impacts after all appropriate and practicable avoidance and minimization measures have been applied." *Id.*

Coalition-37 cont.

In this case, the Draft EA proposes a suite of mitigation measures to mitigate numerous significant Project impacts. However, the mitigation measures proposed in the Draft EA fail to meet the basic legal standards required by NEPA. As discussed below, the Draft EA fails entirely to avoid sensitive resources, and fails to include mitigation measures for some significant impacts. Where it does propose mitigation, the Draft EA contains numerous non-binding, incomplete, deferred, or generally ineffective mitigation measures which fail to ensure that the impacts they purport to mitigate will be reduced to less than significant levels. An EIS must be prepared to remedy the deficiencies in Reclamation's proposed mitigation plan.

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[217] *Id.*
[218] *Id., citing Greenpeace Action,* 14 F.3d at 1332.
[219] *Klamath-Siskiyou Wildlands Center v. U.S. Forest Service* (E.D. Cal. 2004) 373 F.Supp.2d 1069, 1080 (mitigated Environmental Assessment inadequate where mitigation measures to reduce impacts to Northern Spotted Owl were not supported with evidence of their efficacy).
[220] Department of the Interior Departmental Manual, Chapter 600 DM 6, Oct. 23, 2015, available at https://www.doi.gov/sites/doi.gov/files/uploads/TRS%20and%20Chapter%20FINAL.pdf.

**A. Air Quality.**

As discussed above, air quality expert Jessie Jaeger of SWAPE modeled the Project's construction air emissions, and concluded that the Project's NOx emissions will be significant.[221] The Draft EA did not disclose NOx emissions as a significant impact, and therefore failed to include any mitigation measures to reduce this impact to less than significant levels. An EIS must be prepared that incorporates mitigation measure to reduce the Project's NOx emissions to less than significant levels.

SJVAPD guidance recommends the adoption of mitigation measures requiring the use of low-emission construction vehicles to reduce significant construction emissions:

Coaltion-38

> Feasible mitigation of construction exhaust emission includes use of construction-related equipment powered by engines meeting, at a minimum, Tier II emission standards, as set forth in §2423 of Title 13 of the California Code of Regulations, and Part 89 of Title 40 Code of Federal Regulations, and limitations of hours of activities.[222]

These measures, at a minimum, should be implemented for the Project. Additionally, the Applicant must comply with SJVAPCD Rule 9510 by consulting with SJVAPCD regarding entering into a voluntary emissions reduction agreement for the Project's NOX emissions.[223]

Finally, Ms. Jaeger also proposes a suite of mitigation measures that can be feasibly required by Reclamation that would be effective in reducing the Project's NOx emissions:

- All diesel onroad vehicles on site for more than 10 total days must have either (1) engines that meet U.S. Environmental Protection Agency (EPA) 2007 onroad emissions standards or (2) emission control technology verified

[221] Exhibit A, SWAPE Comments, pp. 4-13.
[222] SJVAPD Guidelines, p. 119.
[223] https://www.valleyair.org/rules/currntrules/r9510.pdf. Other regional solar projects have been required to consult with the Air District pursuant to Rule 9510. See Quinto Solar EIR.

by EPA[224] or the California Air Resources Board (CARB)[225] to reduce PM emissions by a minimum of 85 percent.

- All diesel generators on site for more than 10 total days must be equipped with emission control technology verified by EPA or CARB to reduce PM emissions by a minimum of 85 percent.
- All nonroad diesel engines on site must be Tier 2 or higher. Tier 0 and Tier 1 engines are not allowed on site.
- All diesel nonroad construction equipment on site for more than 10 total days must have either (1) engines meeting EPA Tier 4 nonroad emission standards or (2) emission control technology verified by EPA or CARB for use with nonroad engines to reduce PM emissions by a minimum of 85 percent for engines 50 horse power (hp) and greater and by a minimum of 20 percent for engines less than 50 hp.
- All diesel vehicles, construction equipment, and generators on site shall be fueled with ultra-low sulfur diesel fuel (ULSD) or a biodiesel blend[226] approved by the original engine manufacturer with sulfur content of 15 parts per million (ppm) or less.

Coalition-38 cont.

These measures, at a minimum, should be adopted as mitigation measures for the Project.

## B. Biological Resources.

### *1. Failure to Mitigate for Habitat Loss*

Coalition-39

The Draft EA fails to follow DOI's mitigation hierarchy criteria to mitigate the loss of habitat to San Joaquin kit fox, blunt-nosed leopard lizard, burrowing owls and other species that will be caused by the Project.

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[224] For EPA's list of verified technology: http://www3.epa.gov/otaq/diesel/verification/verif-list.htm
[225] For CARB's list of verified technology: http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm
[226] Exhibit A, SWAPE Comments, p. 14; Diesel Emission Controls in Construction Projects, *available at:* http://www2.epa.gov/sites/production/files/2015-09/documents/nedc-model-contract-sepcification.pdf. Biodiesel lends are only to be used in conjunction with the technologies which have been verified for use with biodiesel blends and are subject to the following requirements: http://www.arb.ca.gov/diesel/verdev/reg/biodieselcompliance.pdf

The Project will develop almost 250 acres of park lands into an industrial solar facility. As explained by Mr. Cashen, this development will result in the loss of foraging habitat, wildlife corridors, and terrestrial habitat for numerous special-status species.[227] The Draft EA concludes that "[w]ith the implementation of Measures BIO-1, BIO-2, BIO-3, BIO-8, and BIO-9 in Section 2.2.5, effects to blunt-nosed leopard lizard, San Joaquin kit fox, and burrowing owls from Project construction would be minor."[228] However, this conclusion is not supported because none of the proposed measures mitigate habitat loss, which both USFWS and CDFW have concluded is the greatest threat to the species addressed in the Draft EA.[229]

Coalition-39 cont.

Measure BIO-1 through BIO-3 require pre-construction surveys for kit fox, blunt-nosed leopard lizard, and burrowing owl.[230] Measures BIO-8 and BIO-9 require a USFWS-approved biologist to supervise Project construction and identify any special-status species that are present at the Project site during construction.[231] None of these measures addresses the permanent loss of almost 250 acres of viable habitat for these species. Thus, the mitigation measures proposed in the Draft EA fail to avoid or mitigate for habitat loss, and there is no compensatory mitigation measures proposed to replace this lost habitat.

Because the proposed Project would eliminate, degrade, and fragment habitat even if all proposed mitigation measures are implemented successfully, Reclamation must provide habitat compensation or replacement measures before it can conclude that effects to blunt-nosed leopard lizard, San Joaquin kit fox, burrowing owl, and other special-status species would be "minor."

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[227] Exhibit C, Cashen Comments, pp. 4-15.

[228] DEA, p. 54.

[229] U.S. Fish and Wildlife Service. 1998. Recovery plan for upland species of the San Joaquin Valley, California . Region 1, Portland, OR. 319 pp. *See also* California Department of Fish and Game. 2012. Staff Report on Burrowing Owl Mitigation. p. 8. Available at: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83843>. *See also* California Department of Fish and Game. 1994. Staff report regarding mitigation for impacts to Swainson's hawks (*Buteo swainsoni*) in the Central Valley of California.

[230] EA, p. 38.

[231] *Id.*

*2. Incomplete and Ineffective Mitigation Measures*

Mr. Cashen identifies several flaws in the Draft EA's proposed biological mitigation measures that render the measures uncertain and therefore ineffective.

Where mitigation measures conflict with evidence in the record or with applicable regulatory mitigation guidance, they will be held to be uncertain and therefore ineffective.[232] In *Klamath-Siskiyou Wildlands Center,* the District Court held that mitigation measures for impacts to the Northern Spotted Owl from a Forest Service timber harvesting plan were uncertain and ineffective where they purported to contain seasonal restrictions on the timing of timber harvests that were consistent with owl breeding and nesting seasons, but in fact, did not place restrictions at the appropriate times.

Coalition-40

The timber harvest plan prepared by the Forest Service in *Klamath-Siskiyou* proposed to harvest timber in forest areas containing spotted owl habitat. The Forest Service prepared an EA with a mitigation measure that purported to restrict harvesting to seasons that were not critical to owl nesting and breeding.[233] The Forest Service concluded, based on the mitigation measure, that the project's direct adverse effects on spotted owl would be mitigated to less than significant levels. However, a closer review of the Biological Assessment and Biological Evaluation prepared for the project revealed that the harvest plans did not actually require such seasonal restrictions or placed them at the wrong time of year. Because evidence in the record demonstrated that the project would not restrict activity at the right times of year (or at all), the court concluded that the mitigation measure was uncertain and ineffective.

Similarly here, Mr. Cashen identified several mitigation measures that purport to mitigate impacts to listed species via preconstruction surveys and restrictions on construction activities, but propose to conduct those surveys and restrict activities at the wrong time of year, or not at all. For example, Measure BIO-3 requires a pre-construction survey for burrowing owls according to the standards established in CDFW's *Staff Report on Burrowing Owl Mitigation* (CDFW 2012). However, the DEA fails to identify what would occur if burrowing owls are detected during the survey, and does not require compensatory mitigation

[232] *Klamath-Siskiyou Wildlands Center,* 373 F.Supp.2d at 1080.
[233] *Id.* at 1081-82.

for impacts to burrowing owls and their foraging habitat even if they are detected during the pre-construction surveys.[234]

Measure BIO-4 requires pre-construction surveys for Swainson's hawk and other raptor nests no more than 10 days before ground disturbance, purportedly in accordance with the Swainson's Hawk Technical Advisory Committee ("SHTAC") protocol.[235] However, on its face, this measure is inconsistent with SHTAC protocol because the protocol requires surveys to be conducted immediately prior to a project's initiation (not 10 days prior), and limits the time of year in which the surveys may be conducted, because nests are extremely difficult to locate during certain times of year.[236] Furthermore, Measure BIO-4 contains no seasonal restrictions on the timing of the raptor surveys, and for that reason, does not comply with the SHTAC protocol. Its efficacy is therefore uncertain.

Coalition-40 cont.

Measure BIO-7 requires pre-construction surveys for nesting loggerhead shrikes, grasshopper sparrows, and tricolored blackbirds, but fails to account for the species' breeding seasons.[237] Measure BIO-7 also requires construction-free nest buffer zones at a distance of 50 feet, which is substantially less than the minimum no-disturbance buffer of 250 feet around active nests of non-listed bird species and 500 feet around the nests of unlisted raptors that is recommended by CDFW.[238] Finally, Measure BIO-8 provides methods for pre-construction detection of blunt-nosed leopard lizard and San Joaquin kit fox, but does not require that any action be taken if the species are detected.[239]

Because these measures fail to require action that is consistent with these species' breeding and habitat patterns, there is no evidence that the measures will be effective to mitigate the Project's direct adverse impacts on them. An EIS must be prepared to remedy these deficiencies.

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[234] EA, p. 38.
[235] *Id.*
[236] See Exhibit C, Cashen Comments, p. 24; Swainson's Hawk Technical Advisory Committee. 2000. Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley. Available at: www.dfg.ca.gov/wildlife/nongame/docs/swain_proto.pdf.
[237] See Exhibit C, Cashen Comments, p. 25.
[238] California Department of Fish and Wildlife. 2015 Jan 13. Letter to Merced County Planning and Community Development Department regarding the Final Environmental Impact Report (FEIR) for Wright Solar Project. p. 3.
[239] See Exhibit C, Cashen Comments, p. 26; EA, p. 39.

## C. Battery Energy Storage System.

Mitigation Measures WQ-1, WQ-2 and HAZ-1 through HAZ-4 purport to mitigate the potentially adverse impacts of a battery fire at the Project site. However, these measures fail to include supporting evidence to substantiate their effectiveness.

### *1. Mitigation Measures for Fire Suppression and Containment Are Vague and Lack Evidence of Efficacy*

Measure WQ-1 requires the implementation of a secondary containment system and fire suppression system to manage the effects of a battery fire.[240] However, the measure fails to identify the chemicals that will be used as the proposed "gaseous fire suppression agent" and fails to describe the size, depth, capacity or provide any other meaningful details regarding the proposed secondary containment system.

Coalition-41

Measure WQ-2 confirms that Reclamation did not have this information at the time the Draft EA was released for public review, and moreover, does not intend to provide it to the general public prior to Project approval. Measure WQ-2 states that "the type of batteries installed, and details regarding the fire suppression system installed *will be made available to fire personnel as soon as they are confirmed.*"[241] The measure necessarily implies that, at the time the Draft EA was prepared, Reclamation and the Applicant had not confirmed the type of battery system that the Project will install, nor what chemicals will be used to combat a battery fire. Reclamation therefore has no basis on which to conclude in the Draft EA that the impacts from a battery fire will be adequately mitigated. Moreover, the stated intent to provide this information to "fire personnel" but not to the public is contrary to NEPA's basic public disclosure requirements.[242]

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[240] EA, p. 37.
[241] EA, p. 37 (emphasis added).
[242] *See Westlands Water Dist. v. U.S. Dep't of Interior*, 275 F. Supp. 2d 1157 (E.D. Cal. 2002) (NEPA process "broke down" where agency's discussion of impact was not presented until after closure of comment period); 40 C.F.R. §§ 1500.2(d), 1503.1(a)(4), 1506.6 (2007) (all requiring public notice and availability of environmental documents so that interested persons and the agencies can be informed); *Anderson v. Evans*, 371 F.3d 475, 487 (9th 2004) (CEQ regulations require that the "public must be given an opportunity to comment on draft EAs and EISs, and public hearings are encouraged to facilitate input on the evaluation of proposed actions").

As explained by Mr. Hagemann, without disclosing the identity of the proposed fire-suppression chemicals, or providing any volume estimates of water and liquid chemicals that might be needed in the event of a battery fire, the efficacy of Measure WQ-1 is uncertain, and the public is not provided with sufficient information to determine whether Measure WQ-1 addresses the potentially significant risks to drinking water and aquatic organisms in adjacent water bodies in the event of a fire.

The courts have invalidated similar mitigation measures for being vague. In *Forest Service Employees for Environmental Ethics v. U.S. Forest Service*,[243] the court remanded an EA and FONSI issued by the Forest Service on the proposed use of chemical fire retardants where the EA's mitigation measures provided "no meaningful restrictions" on the subsequent decisions of agency officials concerning the use of the chemicals.[244] In *National Audubon Society v. Hoffman*,[245] the court held that a mitigation measure requiring installation of a berm to prevent all-terrain vehicles from overusing forest sites in a recreation expansion project was inadequate because the Forest Service failed to support its efficacy determination with substantial evidence. Specifically, the court found the measure to be unsupported because Forest Service had not conducted any study of the effects of the berm, the measure did not require any subsequent monitoring of vehicle activity at the project site, and the Forest Service did not consider any alternative measures.[246]

Coalition-41 cont.

Similarly, here, Measures WQ-1 and WQ-2 do not disclose the chemicals or fire suppression equipment planned for the Project site, and do not place any restrictions on their subsequent selection. There is no evidence in the Draft EA that Reclamation has performed any analysis of battery storage fires or the techniques required to suppress them, and neither Mitigation Measure requires a consideration of any alternative chemicals or fire suppression methods prior to their selection. Rather, Measures WQ-1 and WQ-2 appear to allow Reclamation and the Applicant to select the fire suppression system behind closed doors and without any subjective analysis, so long as they inform the fire department after the fact about what they have selected. This approach contradicts NEPA's basic disclosure and mitigation requirements.

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[243] 726 F.Supp.2d 1195 (D. Mont. 2010).
[244] *Id.* at 1218.
[245] 132 F.3d 7 (2d. Cir. 1997).
[246] Id. at

*2. Deferred Mitigation*

The Draft EA states that the battery units will be stored on a concrete pad surrounded by a concrete berm or containment system, but fails to provide any plans or drawings that describe the dimensions or containment capacity of the proposed containment system.[247] The Draft EA also purports to rely on four separate plans – a Hazardous Materials Management Plan (Mitigation Measure WQ-q), a Hazardous Materials Business Plan (Mitigation Measure HAZ-1), a Spill Prevention and Response Plan, and an Emergency Action Plan (Mitigation Measure HAZ-2) – to safeguard the Project site and the public from battery storage risks.[248] However, none of these plans were included in the Draft EA, and apparently had not even been drafted at the time the Draft EA was released.[249] The failure to include these critical emergency planning documents in the Draft EA is impermissibly deferred mitigation.

Coalition-42

**D. Non-Binding Mitigation Measures.**

The Draft EA also contains mitigation measures that do not require any mandatory or meaningful action by the Applicant. Measure REC-1 states that water "would" "be used for dust suppression throughout Project construction."[250] Use of the word "would" implies that the use of water for dust suppression is merely an optional activity. This renders the measure meaningless because it does not make dust suppression a mandatory action. The measure should be rephrased to use the word "shall" in place of "would." The same revision is needed for Measure REC-2, which states that construction activities "would" comply with Merced County noise levels standards.[251] Lastly, Measure NOI-4, intended to mitigate noise impacts to park visitors during Project construction, requires the Applicant to "coordinate with State Parks to develop signs" to advise visitors about construction-related noise, but does not require that any signs actually be posted. This measure should be revised to make such signage mandatory.

Coalition-43

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[247] EA, p. 37, Mitigation Measure WQ-1..
[248] EA, p. 37, Mitigation Measures HAZ-1 and HAZ-2.
[249] See e.g. EA, p. 39 ("HAZ-1: A Hazardous Materials Business Plan ***will be prepared***....") (emphasis added); ("HAZ-3: ...These requirements and any applicable reporting ***will be detailed*** in the Spill Prevention and Response Plan.") (emphasis added).
[250] EA, p. 38.
[251] EA, p. 39.

## VIII. THE EA FAILS TO ADEQUATELY ANALYZE COMPLIANCE WITH THE ENDANGERED SPECIES ACT

### A. General Obligations Under the ESA.

Section 7(a)(2) of the federal Endangered Species Act prohibits agency action that is "likely to jeopardize the continued existence" of any endangered or threatened species or "result in the destruction or adverse modification" of its critical habitat.[252] To "jeopardize the continued existence of" means "to engage in an action that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species."[253] An action is "jeopardizing" if it keeps recovery "far out of reach," even if the species is able to cling to survival.[254] Thus, "an agency may not take action that will tip a species from a state of precarious survival into a state of likely extinction. Likewise, even where baseline conditions already jeopardize a species, an agency may not take action that deepens the jeopardy by causing additional harm."[255] To satisfy this obligation, the federal agency undertaking the action (here, Reclamation) must prepare a "biological assessment" that evaluates the action's potential impacts on species and species' habitat.[256]

Coalition-44

If the proposed action "is likely to adversely affect" a threatened or endangered species or adversely modify its designated critical habitat, the Applicant or Reclamation must engage in "formal consultation" with the USFWS to obtain its biological opinion as to the impacts of the proposed action on the listed species.[257] Once the consultation process has been completed, USFWS must give Reclamation a written biological opinion "setting forth [USFWS's] opinion, and a

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[252] 16 U.S.C. § 1536(a)(2).
[253] 50 C.F .R. § 402.02; *see also Nat'l Wildlife Fed'n v. NMFS,* 524 F.3d 917 (9th Cir. 2008) (*NWF v. NMFS II*) [rejecting agency interpretation of 50 C.F.R. § 402.02 that in effect limited jeopardy analysis to survival and did not realistically evaluate recovery, thereby avoiding an interpretation that reads the provision "and recovery" entirely out of the text].
[254] *NWF v. NMFS II, supra,* 524 F.3d at 931.
[255] *Id.* at 930.
[256] 16 U.S.C. § 1536(c); 50 C.F.R. § 402.12(a).
[257] 16 U.S.C. § 1536(a)(2), (b)(3); *see also* 50 C.F.R. § 402.14(a), (g).

summary of the information on which the opinion is based, detailing how the agency action affects the species or its critical habitat."[258]

If USFWS determines that jeopardy or destruction or adverse modification of critical habitat is likely, USFWS "shall suggest those reasonable and prudent alternatives which [it] believes would not violate subsection (a)(2) of this section and can be taken by the Federal agency or applicant in implementing the agency action."[259] "Following the issuance of a 'jeopardy' opinion, [Reclamation] must either terminate the action, implement the proposed alternative, or seek an exemption from the Cabinet-level Endangered Species Committee pursuant to 16 U.S.C. § 1536(e)."[260]

Coalition-44 cont.

**B. The Biological Assessment Fails to Satisfy ESA Requirements.**

Like NEPA, federal agency action is broadly defined under the Endangered Species Act. The ESA regulations define agency "action" as follows:

> [A]ll activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies in the United States or upon the high seas. Examples include, but are not limited to: [¶¶]
>
> (c) the granting of licenses, contracts, leases, easements, rights-of-way, permits, or grants-in-aid; . . . .[261]

Coalition-45

When fulfilling their duties under the ESA, federal agencies must also take a broad view of the project and its potential effects, as demonstrated by the following definitions in the ESA regulations:

> *Action area* - "all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action."

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[258] 16 U.S.C. § 1536(b)(3)(A); *see also* 50 C.F.R. § 402.14(h).
[259] 16 U.S.C. § 1536(b)(3)(A).
[260] *National Ass'n of Home Builders v. Defenders of Wildlife,* 551 U.S. 644, 652 (2008).
[261] 50 C.F.R. § 402.02. These regulations implement 16 U.S.C. § 1536(a)(2), which requires federal agencies to consult with the Secretary of Interior and/or Secretary of Commerce to "insure that any action authorized, funded, or carried out by such agency (hereinafter in this section referred to as an 'agency action') is not likely to jeopardize the continued existence of any endangered species or threatened species . . . ."

*Effects of the action* - "the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action . . . . Indirect effects are those that are caused by the proposed action and are later in time, but still are reasonably certain to occur. Interrelated actions are those that are part of a larger action and depend on the larger action for their justification. Interdependent actions are those that have no independent utility apart from the action under consideration."[262] "Effects of the action" include both direct and indirect effects of an action "that will be added to the environmental baseline."[263]

Coalition-45 cont.

*Environmental baseline* - includes "the past and present impacts of all Federal, State or private actions and other human activities in the action area" and "the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation."[264]

As the above discussion demonstrates, what constitutes agency action and the scope of environmental review required for agency action is virtually the same under NEPA and ESA. Both statutes require Reclamation to broadly consider actions related to the proposed action. The Biological Assessment submitted by the Applicant, however, fails to accurately describe the baseline conditions for species use of the Project site. Consequently, the Biological Assessment fails to address the associated impacts to listed species such as the desert tortoise.

### C. The EA Fails to Disclose the Details of the Applicant's Section 7 Consultation.

Coalition-46

Reclamation has determined that the Project may affect blunt-nosed leopard lizard and San Joaquin kit fox. The Draft EA states that Reclamation initiated consultation with USFWS, under section 7(a)(2) of the Endangered Species Act, in November 2015.[265] However, the Draft EA fails to disclose the details of Reclamation's ongoing consultation under the ESA with the USFWS. In fact, at the

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[262] *Ibid.*
[263] *Ibid.*
[264] *Ibid.*; see also *National Wildlife Federation v. National Marine Fisheries Service,* 524 F.3d 917, 924 (9th Cir. 2008).
[265] EA, p. 139.

time the EA was issued, the Biological Assessment had not been accepted as complete, and it appears that USFWS remains in the informal consultation process with Reclamation. An EIS should be prepared once the informal consultation has been completed. Based on the evidence contained herein, it is clear that a reasonable question exists as to whether the Project will result in significant impacts in the form or take of one or more Federally listed species, including but not limited to the San Joaquin kit fox. It is likely (and strongly urged by the commenters) that USFWS will reach a similar conclusion and initiate formal consultation as to one or more listed species. An EIS must be prepared to incorporate any subsequent USFWS biological opinion and any incidental take permit that may be issued under Section 7 of the ESA. Without including this analysis, the Draft EA is inadequate. Reclamation must disclose the current status of consultation efforts with USFWS and include the results of USFWS's analysis of biological impacts in an EIS for public review and comment.

Coalition-46 cont.

The ESA prohibits "take" of threatened and endangered species.[266] "Take" is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct."[267] "Harm" includes "the destruction or adverse modification of habitat resulting in potential injury to a species, including injury from impairment of essential behavioral patterns, such as breeding, feeding or sheltering."[268] Under ESA Section 7, a federal agency must initiate consultation with the USFWS "at the earliest possible time" whenever the agency proposes to undertake an action that "may affect" a listed species or species' critical habitat.[269] If a "may affect" determination is made, which is certain for the proposed Project, then the USFWS must develop and issue a biological opinion containing terms and conditions to ensure that the activities are not likely to jeopardize protected species.[270] Furthermore, USFWS's issuance of a biological opinion requires environmental review under NEPA.

The proposed FONSI is also premature in light of Reclamation's ongoing Section 7 consultation. Despite Reclamation's own conclusion that the Project may adversely affect at least two federally protected species on the proposed Project site, Reclamation did not wait for USFWS to issue its determination on the issue before

[266] 16 U.S.C. § 1538 (2010).
[267] 16 U.S.C. § 1532(19).
[268] 50 C.F.R. § 17.3 (2009).
[269] 50 C.F.R. § 402.14(a).
[270] *See* 16 U.S.C. § 1536.

Coalition-46 cont.

proposing adoption of a FONSI. The Draft EA acknowledges that Reclamation must engage in consultation with the USFWS, and that it has initiated consultation, but it failed to confirm that all terms and conditions associated with these consultations are being implemented, and failed to inform the public of the outcome of this consultation. Reclamation must prepare and circulate an EIS that incorporates the results of its Section 7 consultation once USFWS has issued its determination.

## IX. CONCLUSION

Coalition-47

As discussed herein, the EA failed to conduct the requisite analysis required by NEPA to identify, discuss, and mitigate the Project's significant environmental effects. An EIS must be prepared and circulated for public review and comment to adequately address these issues. We respectfully urge Reclamation to prepare an EIS prior to taking any action of any kind on the Applicant's pending federal permit applications.

Thank you for your consideration of these comments. Please place this letter and all exhibits and attachments into the record of proceedings for the Project.

Sincerely,

Christina M. Caro

CMC:ric

Attachments

January 11, 2016

Ms. Christina M. Caro
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080

**Subject: Comments on the Draft Environmental Assessment Prepared for the San Luis Solar Project**

Dear Ms. Caro:

This letter contains my comments on the Draft Environmental Assessment ("DEA") prepared by the Bureau of Reclamation ("Reclamation") for the San Luis Solar Project ("Project"). San Luis Renewables ("Applicant") proposes to construct, operate, maintain, and decommission a 26-megawatt photovoltaic ("PV") solar generating facility on three sites along O'Neill Forebay in Merced County, California.

I am an environmental biologist with 23 years of professional experience in wildlife ecology and natural resource management. I have served as a biological resources expert for over 100 projects, the majority of which have been renewable energy facilities. My experience and scope of work in this regard has included assisting various clients with evaluations of biological resource issues, reviewing environmental compliance documents prepared pursuant to the California Environmental Quality Act ("CEQA") and the National Environmental Policy Act ("NEPA"), and submitting written comments in response to CEQA and NEPA documents. My work on renewable energy projects has included the preparation of written and oral testimony for the California Energy Commission, California Public Utilities Commission, and U.S. district courts. My educational background includes a B.S. in Resource Management from the University of California at Berkeley, and a M.S. in Wildlife and Fisheries Science from the Pennsylvania State University.

I have gained particular knowledge of the biological resource issues associated with the Project through my work on several other projects in the region, and through my work on numerous solar energy projects throughout the State of California. The comments herein are based on my review of the environmental documents prepared for the Project, a review of scientific literature pertaining to biological resources known to occur in the Project area, consultations with other biological resource experts, and the knowledge and experience I have acquired during more than 23 years of working in the field of natural resources management.

## OVERARCHING ISSUES

### Availability of the BA and BE

Both a Biological Assessment ("BA") and Biological Evaluation ("BE") were prepared for the Project. Although the BA and BE contain information that is fundamental to the analysis presented in DEA, Reclamation did not release either document to the public. Furthermore, Reclamation waited until 8 January 2016 to provide the documents in response to your Public Records Act request. This impaired my ability to evaluate the information, analyses, and conclusions presented in the DEA.

### Reclamation Did Not Accurately Define the Action Area

According to the BE, the Project action area consists of "Sites 1, 2, and 3, staging areas, potential spoils pile relocation areas, gen-tie lines, and associated access roads."[1] Therefore, the action area was limited to the Project footprint. Under NEPA, the action area is defined as "all areas that may be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action."[2] Reclamation acknowledges the Project could adversely affect biological resources outside of the Project footprint (e.g., due to noise), and thus, it had no basis for confining to action area to the solar facility sites, staging areas, potential spoils pile relocation areas, gen-tie line, and associated access roads. Because Reclamation did not accurately define the action area, the DEA does not accurately disclose and analyze the extent of Project impacts to sensitive biological resources.

Reclamation's failure to accurately define the action area is confounded because the BE, BA, and DEA refer to survey results within the "Project area," and to the absence of sensitive biological resources on the "Project sites."[3] However, neither of these terms is defined. As a result, it is unclear if the "Project area" is the same as the action area, and whether the "Project sites" was limited to Sites 1, 2, and 3 (i.e., excluded the gen-tie line corridor and access roads). Reclamation's failure to define the Project area and Project sites precludes an accurate understanding of Project impacts and the value of the proposed mitigation.

### Impacts to "Non-listed" Species

The DEA suggests it does not have to analyze potential effects of the Project on non-federally listed species.[4] To the contrary, NEPA requires consideration of "non-listed"

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[1] Bureau of Reclamation. 2015 Nov. Biological Evaluation, San Luis Solar Project. p. 26.

[2] *See*: <http://www.fws.gov/midwest/endangered/section7/ba_guide.html>.

[3] For example, *see* DEA, p. 52 and Table A-1.

[4] DEA, Table A-1, footnote 1.

species and effects to biodiversity.[5] Reclamation must analyze Project impacts to all special-status species that could be affected by the Project, and it must assess how the Project could affect biodiversity.

## EXISTING CONDITIONS

### Survey Effort

The DEA, BE, and BA fail to provide the information needed to evaluate the rigor of the biological resource surveys conducted by ESR (the Applicant's consultant), and thus, the information needed to evaluate the validity of the baseline data provided in those documents. Specifically, the documents do not identify: (1) the techniques used to assess the presence of special-status species and migratory corridors; (2) the target species of the surveys; (3) whether any protocol surveys were implemented; (4) the level of effort (i.e., man-hours) devoted to each survey date; and (5) the qualifications of the individuals that conducted the surveys. In addition, the DEA, BE, and BA do not identify the specific areas that were surveyed, including the extent of surveys outside of the Project footprint to evaluate potentially significant indirect effects. Based on the language in the DEA, it appears the biologists did not search for special-status species along the proposed gen-tie line corridor and access roads.

The DEA makes numerous references to special-status species not being observed during the field surveys. This information is used to support Reclamation's conclusion that Project effects to special-status species would be discountable (i.e., extremely unlikely) or insignificant. However, without information on the survey methods, it is impossible to evaluate the possibility that a species was present, but not detected during the surveys.

### Habitat Quality

The DEA states: "there is a low potential for special-status wildlife species to use the *marginal habitat* in the Project area."[6] This statement is not supported by scientific evidence. Habitat quality is defined by the ability of the habitat to provide conditions appropriate for individual and population persistence.[7] Measuring habitat quality requires collecting data on critical resources (e.g., food and nest sites) and demographic variables (e.g., reproductive output and survival), followed by analyses of those variables to determine how they affect individual and population persistence.[8] ESR and Reclamation did not attempt to measure habitat quality, therefore the assertion that the Project area provides marginal habitat is nothing more than unsupported speculation.

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[5] Council on Environmental Quality. 1993. Incorporating Biodiversity Considerations Into Environmental Impact Analysis Under the National Environmental Policy Act. Council on Environmental Quality, Executive Office of the President, Washington, DC.

[6] DEA, p. 54. [emphasis added].

[7] Morrison ML, BG Marcot, and RW Mannan. 2006. Wildlife-Habitat Relationships: Concepts and Applications. 3rd ed. Washington (DC): Island Press. p. 448.

[8] Johnson MD. 2007. Measuring Habitat Quality: A Review. The Condor 109:489-504.

**Special-Status Plants**

The DEA states the Project area does not support suitable habitat for special-status plant species.[9] This statement contradicts the San Luis Reservoir SRA Resource Management Plan/General Plan ("RMP/GP") and other sources of scientific information.[10] At least 25 special-status plant species have been documented occurring in grassland habitat within Merced County.[11] The DEA provides no evidence that the grasslands in the Project area possess attributes that preclude them from providing suitable habitat for all 25 of those species. Furthermore, the DEA, BE, and BA provide no evidence that ESR conducted protocol level floristic surveys throughout all portions of the Project area that could be directly or indirectly affected by the Project.[12]

As the BA acknowledges, the botanical surveys were conducted during a year of minimal rainfall,[13] which undoubtedly affected the germination and abundance of native plant species. Indeed, some of the target species listed in the BA do not emerge during years of low rainfall.[14] Contrary to state and federal survey guidelines, ESR provided no evidence that the biologists visited reference sites to confirm potentially occurring rare plant species were evident and identifiable at the time of the surveys.[15]

State and federal survey guidelines dictate the need for additional surveys when adverse conditions such as low rainfall occur.[16] However, instead of requiring additional surveys Reclamation has jumped to the conclusion that special-status plants would not be affected by the Project. That conclusion is not justified unless appropriately timed floristic surveys are conducted throughout all portions of the Project site and buffer zone containing natural or naturalized vegetation.

**Raptors**

According to the BA, biologists for the Quinto Solar Project detected a red-tailed hawk

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[9] DEA, p. 51.

[10] Bureau of Reclamation and California Department of Parks and Recreation. 2013. Final Resource Management Plan/General Plan and Final Environmental Impact Statement/Environmental Impact Report. Table 2-17.

[11] California Natural Diversity Database. 2016 Jan 6. RareFind 5 [Internet]. California Department of Fish and Wildlife.

[12] California Department of Fish and Game. 2009. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. Available at: <http://www.dfg.ca.gov/wildlife/nongame/survey_monitor.html#Plants>.

[13] ESR, Inc. 2015. Biological Assessment, USDI Bureau of Reclamation San Luis Solar Project. p. 44.

[14] *Ibid*, Table 1.

[15] U.S. Fish and Wildlife Service. 2000. Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants. *See also* California Department of Fish and Game. 2009. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. Available at: <http://www.dfg.ca.gov/wildlife/nongame/survey_monitor.html#Plants>.

[16] U.S. Fish and Wildlife Service. 2000. Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants.