

Comment Letter 5: Adams, Broadwell Joseph & Cardozo (April 13, 2015)

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April 13, 2015

VIA E-MAIL AND OVERNIGHT MAIL

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Re: Comments on the Draft Environmental Impact Report for the Willow Springs Solar Array Project (PP10232) (State Clearinghouse No. 2010031023)

Dear Mr. Dmohowski:

On behalf of **Kern County Citizens for Responsible Solar** we submit these comments on the Draft Environmental Impact Report ("DEIR") prepared by the County of Kern ("County") for the Willow Springs Solar Array Project ("Project") proposed by Willow Springs Solar, LLC ("Applicant"). The Project requires County Zoning Changes, a Specific Plan Amendment and a Conditional Use Permit to allow for the development of a photovoltaic ("PV") solar power plant with a capacity of 150 megawatts ("MW"), located on a 1,401 acre site over nine parcels.

As explained more fully below, the DEIR does not comply with the requirements of the California Environmental Quality Act ("CEQA").¹ The County may not approve the Project until an adequate DEIR is prepared and circulated for public review and comment.

Kern County Citizens for Responsible Solar is a coalition comprised of individuals (including Rosamond residents, Gary Wilcox and Daniel Wilbour, Mojave residents Gaston Moore, Lorreta Moore and Emilio Pino, and Tehachapi

¹ Pub. Resources Code § 21000 *et seq.*

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residents Josh Hernandez and Neal Herman), and groups, including California Unions for Reliable Energy and its members and their families. Kern County

Citizens for Responsible Solar was formed to advocate for responsible and sustainable solar development that protects the environment where the coalition members and their families live, work, and recreate.

The individual members of Kern County Citizens for Responsible Solar live in and recreate in and around eastern Kern County. They have a personal interest in protecting the Project site from unnecessary, adverse impacts to the area's plants, wildlife, air and water resources. These individuals appreciate and enjoy the ecosystem in and around the Project area.

California Unions for Reliable Energy ("CURE") is a coalition of labor unions whose members encourage sustainable development of California's energy and natural resources. Environmental degradation destroys cultural and wildlife areas, consumes limited fresh water resources, causes water and air pollution, and imposes other stresses on the environmental carrying capacity of the state. This in turn jeopardizes future development by causing construction moratoriums and otherwise reducing future employment opportunities for CURE's members.

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Additionally, union members live, recreate and work in the communities and regions that suffer the impacts of projects that are detrimental to human health and the environment. CURE therefore has a direct interest in enforcing environmental laws to minimize the adverse impacts of projects that would otherwise degrade the environment. Finally, CURE members are concerned about projects that risk serious environmental harm without providing countervailing economic benefits. The CEQA process allows for a balanced consideration of a project's socioeconomic and environmental impacts, and it is in this spirit that we offer these comments.

We have reviewed the DEIR and its technical appendices with assistance from air quality and public health expert Petra Pless,² hazards expert Matt Hagemann³ and biologist Shawn Smallwood.⁴ The comments and curriculum vitae⁵

² Exhibit A, Pless Comments.

³ Exhibit B, Hagemann Comments.

⁴ Exhibit C, Smallwood Comments.

⁵ Exhibit D, Pless CV; Exhibit E, Hagemann CV; Exhibit F, Smallwood CV.

of these experts are attached to this letter. These expert comments are submitted as supplemental comments to this letter and should be responded to separately in the response to comments.

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I. INTRODUCTION

The Project is located in western Kern County. More than 30 solar power plants on 20,872 acres in Kern County have been approved, and there are more than 18 additional pending applications for solar projects on over 15,000 acres within the County.⁶ While these projects will employ solar technology, each one will unavoidably tax the State's limited water, land, air, and biological resources to a potentially significant cumulative extent. In addition, many of the projects are on agricultural land that has provided substantial employment to Kern County residents - employment opportunities that will not be replaced by the meager operational staff required to operate these land intensive solar projects. At the same time, the County is facing the fourth year of severe drought, resulting in reduced water availability, intense and more frequent dust storms, increased threats to the viability of agricultural and biological resources, and increasing rates of Valley Fever.

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Due to the unprecedented scope of large scale development projects taking place in this region, it is essential that the County's EIR adequately identify and analyze the Project's foreseeable direct, indirect and cumulative impacts. It is also imperative that any and all feasible mitigation measures be presented and discussed. Indeed, CEQA requires nothing less.

As discussed below, the Project will result in significant impacts in a number of areas, including air quality, biological resources, agricultural resources, hazards and water supplies. The DEIR mischaracterizes, mis-analyzes, underestimates, or fails to identify many of these impacts. Furthermore, many of the mitigation measures described in the DEIR will not in fact mitigate impacts to the extent claimed. The DEIR must be revised to resolve its inadequacies and must be recirculated for public review and comment. CEQA requires recirculation of a DEIR for public review and comment when significant new information must be added to the DEIR following public review, but before certification.⁷ The CEQA Guidelines

⁶ http://www.co.kern.ca.us/planning/pdfs/renewable/solar_projects.pdf

⁷ Pub. Resources Code § 21092.1.

clarify that new information is significant if “the DEIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the Project or a feasible way to mitigate or avoid such an effect.”⁸

The purpose of recirculation is to give the public and other agencies an opportunity to evaluate the new data and the validity of conclusions drawn from it.⁹ As discussed below, the DEIR fails to disclose and evaluate all Project components, the DEIR does not adequately establish the environmental setting from which to evaluate the Project’s impacts, the Project will result in significant environmental impacts that are not analyzed in the DEIR, and there are feasible mitigation measures available to reduce significant impacts that have not been required in the DEIR. These changes must be addressed in a revised DEIR that is circulated for public review and comment.

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II. THE PROJECT DESCRIPTION IS INADEQUATE

The DEIR violates CEQA because it contains an incomplete and inconsistent Project description. A stable, accurate and complete project description is necessary to meaningfully evaluate the potential environmental effects of a proposed project.¹⁰ In contrast, an inconsistent, inaccurate or incomplete project description renders the analysis of environmental impacts inherently unreliable.¹¹ Without a complete project description, the environmental analysis under CEQA will be impermissibly narrow, thus minimizing the project’s impacts and undercutting public review.¹² The courts have repeatedly held that “[a]n accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient EIR.”¹³

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The DEIR fails to meet this basic threshold by stating in the introduction that the Project will include the temporary construction and operation of a concrete batch plant on site¹⁴, yet stating in the analysis of the Project’s impacts that all

⁸ 14 Cal. Code Regs. tit. 14 (“CEQA Guidelines”), § 15088.5.

⁹ *Save Our Peninsula Comm. v. Monterey County Bd. of Supervisors* (1981) 122 Cal.App.3d 813, 822.

¹⁰ *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 192.

¹¹ *Id.* at 192-193.

¹² See, e.g., *Laurel Heights Improvement Association v. Regents of the University of California* (1988) 47 Cal.3d 376.

¹³ *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 193.

¹⁴ DEIR at p. 1-1; see also Exhibit G, Willow Springs Updated Project Description (July 26, 2012).

concrete will be delivered to the Project site from a local source approximately 40 miles away.¹⁵ The applicant added the temporary construction and operation of a concrete batch plant to the Project description in July of 2012¹⁶, but the DEIR failed to amend its impact analyses to include this additional Project component. As a result, the DEIR fails to assess any air, noise, water, biological resource or other environmental impacts that may result from the construction and operation of the concrete batch plant.¹⁷ The DEIR must be revised to clarify the Project description and evaluate the potential additional impacts from the concrete batch plant.

The DEIR's Project description is also inadequate because it fails to include the Project proponent's proposed sale of the water rights that are attached to the Project property. The Water Supply Assessment prepared for the Project states that the Project will not rely on an existing public water system, but rather will be served by groundwater produced on site.¹⁸ Later in the same document, however, the Assessment states that if "it proves beneficial," the applicant may divest its groundwater rights upon construction completion.¹⁹ Applicants are able to sell the property's groundwater rights because the Project converts the property to a non-agricultural use. Accordingly, the sale of the property's groundwater rights is a reasonably foreseeable consequence of the Project's conversion of agricultural land to a solar energy power plant, and must be disclosed and evaluated in the DEIR.

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CEQA Guidelines section 15378 defines "project" to mean "the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment."²⁰ Courts have explained that "[a] complete description of a project has to address not only the immediate environmental consequences of going forward with the project, but also all "*reasonably foreseeable* consequence[s] of the initial

¹⁵ See DEIR at p. 4.3-27.

¹⁶ Exhibit G, Willow Springs Updated Project Description (July 26, 2012).

¹⁷ See California Storm Water Quality Association, Temporary Batch Plants NS-16 (January 2003), available at

<https://www.escondido.org/Data/Sites/1/media/pdfs/Utilities/BMPTemporaryBatchPlants.pdf>;

Environment Protection Authority, State Government of Victoria, Environmental Guidelines for the Concrete Batching Industry (June 1998), available at

<http://www.epa.vic.gov.au/~media/Publications/628.pdf>.

¹⁸ DEIR, Appendix C, Water Supply Assessment at p. 6.

¹⁹ DEIR, Appendix C, Water Supply Assessment at p. 12.

²⁰ CEQA Guidelines §15378.

project.”²¹ If an EIR “does not adequately apprise all interested parties of the true scope of the project for intelligent weighing of the environmental consequences of the project, informed decisionmaking cannot occur under CEQA” and the environmental review document is inadequate as a matter of law.²²

The sale of the property’s groundwater rights may have significant impacts on water availability for the Project, may eliminate the ability of the property to return to agricultural use after Project completion, and could lead to increased groundwater overdraft and other water-supply-related impacts. By failing to disclose in the DEIR that the Project applicants may use the conversion of this land to non-agricultural use as an opportunity to sell the property’s groundwater rights, informed decisionmaking cannot occur under CEQA and the environmental review document is inadequate as a matter of law.²³

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III. THE DEIR FAILS TO ADEQUATELY ESTABLISH THE EXISTING ENVIRONMENTAL SETTING AGAINST WHICH THE DEIR IS REQUIRED TO EVALUATE THE PROJECT’S POTENTIALLY SIGNIFICANT IMPACTS

The DEIR describes the existing environmental setting inaccurately and incompletely, thereby skewing the impact analysis. The existing environmental setting is the starting point from which the lead agency must measure whether a proposed Project may cause a significant environmental impact.²⁴ CEQA defines the environmental setting as the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, from both a local and regional perspective.²⁵

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Describing the environmental setting accurately and completely for each environmental condition in the vicinity of the Project is critical to an accurate, meaningful evaluation of environmental impacts. The importance of having a

²¹ *Laurel Heights Improvement Association v. Regents of University of California* (1988) 47 Cal.3d 376, emphasis added; see also *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 449-50.

²² *Riverwatch v. Olivenhain Municipal Water Dist.* (2009) 170 Cal.App.4th 1186, 1201.

²³ *Riverwatch v. Olivenhain Municipal Water Dist.* (2009) 170 Cal.App.4th 1186, 1201.

²⁴ See, e.g., *Communities for a Better Environment v. S. Coast Air Quality Mgmt. Dist.* (March 15, 2010) 48 Cal.4th 310, 316; *Fat v. County of Sacramento* (2002) 97 Cal.App.4th 1270, 1278.

²⁵ CEQA Guidelines §15125(a); *Riverwatch v. County of San Diego* (1999) 76 Cal.App.4th 1428, 1453.

stable, finite, fixed environmental setting for purposes of an environmental analysis was recognized decades ago.²⁶ Today, the courts are clear that “[b]efore the impacts of a Project can be assessed and mitigation measures considered, an [EIR] must describe the existing environment. It is only against this baseline that any significant environmental effects can be determined.”²⁷ In fact, it is:

a central concept of CEQA, widely accepted by the courts, that the significance of a Project’s impacts cannot be measured unless the DEIR first establishes the actual physical conditions on the property. In other words, baseline determination is the first rather than the last step in the environmental review process.²⁸

The DEIR must also describe the existing environmental setting in sufficient detail to enable a proper analysis of Project impacts.²⁹ The CEQA Guidelines provide that “[k]nowledge of the regional setting is critical to the assessment of environmental impacts.”³⁰ This level of detail is necessary to “permit the significant effects of the Project to be considered in the full environmental context.”³¹

The DEIR fails to accurately and adequately describe the environmental setting for the Project, and omits highly relevant information regarding biological resources, drought, and historic pesticide use. An accurate description of the environmental setting is critical to determining Project impacts and identifying appropriate mitigation for those impacts. To comply with CEQA, the County must gather the relevant data and the DEIR must be revised to include accurate and complete descriptions of the existing environmental setting.

A. The DEIR Fails to Disclose that the County Is in the Fourth Year of a Severe Drought.

The DEIR’s description of the environmental setting is legally inadequate because it fails to disclose that the Project environment is in the middle of a prolonged and severe drought. California’s fourth year of drought has resulted in

²⁶ *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185.

²⁷ *County of Amador v. El Dorado County Water Agency* (1999) 76 Cal.App.4th 931, 952.

²⁸ *Save our Peninsula Comm. v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 125.

²⁹ *Galante Vineyards v. Monterey Peninsula Water Mgmt. Dist.* (1997) 60 Cal.App.4th 1109, 1121-22.

³⁰ CEQA Guidelines § 15125(d).

³¹ *Id.*

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some of the lowest water availability levels on record, leading the Governor to declare a drought State of Emergency.³² The resultant impacts on groundwater have been unprecedented.³³ These drought conditions substantially affect potential water supply impacts, air quality impacts and Valley Fever impacts. The DEIR must be revised to disclose these conditions and take them into account in its evaluation of Project impacts.

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B. The DEIR Fails to Adequately Investigate and Describe Existing Hazardous Conditions on the Project Site

The DEIR is legally inadequate because it fails to meaningfully investigate or disclose the existence of contaminated soil or other hazards that may currently exist on the Project site. The DEIR states that no evidence of contamination was found through a review of public databases and of the lists of projects relating to hazardous wastes maintained pursuant to Government Code Section 65962.5. These lists, however, are not comprehensive and cannot be relied upon to assume that no contamination exists at all. For example, agricultural lands that contain hazardous residues of now-banned organic pesticides such as DDT would not show up on these lists; nor would unreported gasoline or pesticide storage leaks.³⁴

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Typically, the potential for the presence of soil contamination is evaluated in a Phase I Environmental Site Assessment ("ESA") to identify chemical hazards that may pose a risk to the public, workers, or the environment and which may require further investigation, including soil sampling.³⁵ Phase I ESAs combine a review of regulatory agency databases with interviews with people knowledgeable about the property and a physical inspection by an expert who can identify discolored soils and other potential signs of contamination. Standards for performing a Phase I ESA have been promulgated by the US EPA and are based in part on American Society for Testing and Materials Standard E1527-05.³⁶

³² State of California, California Drought, available at <http://ca.gov/drought/>; Governor Edmund G. Brown, Executive Order B-28-14, available at <http://www.gov.ca.gov/news.php?id=18815>.

³³ Id.; see also Betina Boxall, Los Angeles Times, Overpumping of Central Valley groundwater creating a crisis, experts say (March 18, 2015), available at: <http://www.latimes.com/local/california/la-me-groundwater-20150318-story.html#page=1>.

³⁴ Hagemann Comments.

³⁵ Hagemann Comments.

³⁶ Hagemann Comments.

Phase I ESAs are conducted to identify any “recognized environmental conditions” (RECs) that may exist and recommendations to address such conditions. By definition, a REC is “the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property.”³⁷ If RECs are identified, a Phase II ESA is generally conducted, which includes the collection of soil, soil vapor or groundwater samples, as necessary, to identify the extent of contamination and the need for cleanup to reduce exposure potential to the public.³⁸

The failure to perform a Phase I ESA for a Project of this scale (1,402 acres or more than two square miles) is highly unusual and is inconsistent with the standard of practice under CEQA for other projects of this magnitude in Kern County.³⁹ A review of current Kern County renewable energy projects available on the County website showed that every other solar project currently undergoing review had completed Phase I ESAs, including the following:⁴⁰

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- Blackwell Solar Project;
- Castor Solar Project;
- Fremont Solar Project (Springbok 2);
- Kingbird Solar Project;
- Pioneer Green;
- RE Astoria Solar Project;
- RE Garland Solar;
- Redwood Cluster Solar Project; and
- SEPV Mojave West Solar Project.

CEQA requires that the County collect facts that enable a complete and accurate description of the Project and its impacts.⁴¹ While the absence of information in an EIR does not per se constitute a prejudicial abuse of discretion, “a

³⁷ *Id.*, citing American Society for Testing and Materials Standard E1527-05.

³⁸ Hagemann Comments.

³⁹ Hagemann Comments.

⁴⁰ Hagemann Comments, citing <http://pcd.kerndsa.com/planning/environmental-documents?limitstart=0>

⁴¹ *Sundstrom v. County of Mendocino* (1988) 22 Cal.App.3d 296, 311; see also *Laurel Heights Improvement Assn. v. Regents of the Univ. of Cal.* (1988) 47 Cal.3d 376, 404-05.

prejudicial abuse of discretion occurs if the failure to include relevant information precludes informed decisionmaking and informed public participation, thereby thwarting the statutory goals of the EIR process.”⁴² An “inadequate description of the environmental setting for the project [makes] a proper analysis of project impacts . . . impossible.”⁴³ A lead agency is not “allowed to hide behind its own failure to gather relevant data.”⁴⁴

Here, the failure to conduct a Phase I ESA has resulted in a curtailed, inadequate and misleading description of the project setting and baseline. By only looking at publically available databases and failing to have a qualified professional conduct a Phase I inspection of the property, the County lacks sufficient information to support its conclusion that no soil contamination exists on the property.

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The need to conduct a Phase I ESA is further supported by historical aerial photographs of the Project site that were obtained by hazards expert Matt Hagemann.⁴⁵ Obtaining such imagery is standard practice in preparation of a Phase I ESA to evaluate land uses which may indicate chemical use.⁴⁶ The historical aerial photographs show agricultural activities on the Project site since 1963.⁴⁷

The use of the Project site for agriculture extending to at least 1963 indicates that organochlorine pesticides may have been applied to the Project site.⁴⁸ Organochlorine pesticides, such as DDT, DDE, and chlordane, were used from the 1940s until they were banned in the 1970s.⁴⁹ Despite being banned for about 40

⁴² *Berkeley Keep Jets Over the Bay Committee v. Board of Port Comrs.* (2001) 91 Cal.App.4th 1344, 1355.

⁴³ *Galante Vineyards v. Monterey Peninsula Water Management Dist.* (1997) 60 Cal.App.4th 1109, 1122. CEQA defines “environment” as the physical conditions that exist within the area that will be affected by a project, and defines “significant effect on the environment” as a potentially substantial adverse change in the environment. Pub. Resources Code §§ 21060.5, 21068; CEQA Guidelines § 15126.2. Without an accurate baseline description of the environment it is impossible to determine whether the project’s impacts will be significant.

⁴⁴ *Gentry v. City of Murietta* (1995) 36 Cal.App.4th 1359, 1378-1379.

⁴⁵ Hagemann Comments.

⁴⁶ Hagemann Comments.

⁴⁷ Hagemann Comments.

⁴⁸ Hagemann Comments.

⁴⁹ U.S. EPA, DDT – A Brief History and Status.

<http://www.epa.gov/pesticides/factsheets/chemicals/ddt-brief-historyv-status.htm>

years, these compounds can persist in soil for hundreds of years.⁵⁰ The California Department of Toxic Substances Control (“DTSC”) states:

DDT is ubiquitous to California soil due to heavy agricultural usage prior to cancellation in 1972. Therefore, agricultural land which is currently being developed or considered for new uses [...] frequently contains DDT.⁵¹

Rather than disclosing that hazardous pesticides may have been applied to the site, the DEIR instead evades this issue by stating that the “type, concentration, and frequency of [the use of pesticides and herbicides] is unknown.”⁵² This description of past pesticide use is incomplete and fails to disclose potential hazards that require further investigation.⁵³

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The DEIR must be revised to include the results of a Phase I ESA and to assess if past land uses, including potential organochlorine pesticide application, have resulted in soil contamination that may pose a risk to construction workers or to nearby residents. Due to the history of agricultural use prior to the 1972 ban of organochlorine pesticides, the Project site should be sampled for the presence of pesticides in soil in accordance with California Department of Toxics Substances Control guidance.⁵⁴ Without this baseline information, a proper analysis of project impacts is impossible.

C. The DEIR Fails to Adequately Describe the Environmental Setting for Swainson’s Hawk, Burrowing Owl and other Special Status Bird Species

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The DEIR inaccurately states that the proposed Project area contains low-quality foraging habitat for Swainson’s hawk, burrowing owl, and other special status bird species.⁵⁵ This characterization of the environmental setting is incorrect

⁵⁰Agency for Toxic Substances and Disease Registry, Public Health Statement for DDT, DDE, and DDD <http://www.atsdr.cdc.gov/phs/phs.asp?id=79&tid=20>

⁵¹ Office of the Science Advisor, DDT in Soil: Guidance for the Assessment of Health Risks to Humans. <http://www.dtsc.ca.gov/AssessingRisk/upload/chap8.pdf>, p. 11.

⁵² DEIR at p. 4.8-4.

⁵³ Hagemann Comments.

⁵⁴ Department of Toxic Substances Control, Interim Guidance for Sampling Agricultural Properties (Third Revision). <http://www.dtsc.ca.gov/Schools/upload/Ag-Guidance-Rev-3-August-7-2008-2.pdf>

⁵⁵ DEIR at p. 4.4-55.

and is not supported by any substantial evidence. None of the biological reports relied upon by the DEIR state that this habitat is “low-quality” foraging habitat. To the contrary, the biological reports show the Project area as literally teeming with Swainson’s hawks, burrowing owls and other special status bird species.⁵⁶

For example, up to 15 Swainson’s hawks were observed on or within a mile of the Project site and over nine active nests were observed within five miles of the Project site within the last five years.⁵⁷ Swainson’s hawks known foraging preference is for areas of low vegetation, such as grasslands or alfalfa fields and in Joshua tree woodlands – exactly the type of land present on the Project site.⁵⁸ No evidence exists in the record to support the claim that the Project area is “low-quality” foraging habitat.⁵⁹

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Similarly, numerous burrowing owls, along with suitable habitat, were found present on the Project site by the County’s own biological consultants.⁶⁰ Cooper’s hawk, ferruginous hawks, loggerhead shrike, northern harrier, prairie falcon and yellow-headed blackbirds, along with suitable foraging habitat, were also found present on the Project site.⁶¹

The DEIR’s description of the quality of habitat for Swainson’s hawk is further inadequate because it fails to disclose the particular vulnerability of the Antelope Valley population of the Swainson’s hawk and fails to disclose how critical the Project habitat is to that population.⁶² The Swainson’s hawk population in

⁵⁶ Smallwood Comments.

⁵⁷ See DEIR at pp. 4.4-13, 4.4-14.

⁵⁸ California Energy Commission and Department of Fish and Game, Swainson’s Hawk Survey Protocols, Impact Avoidance, and Minimization Measures for Renewable Energy Projects in the Antelope Valley of Los Angeles and Kern Counties, California (June 2, 2010); see also Ironwood Consulting, Biological Resources Technical Report Willow Springs Solar Array (December 2011) at p. 21.

⁵⁹ Smallwood Comments.

⁶⁰ Ironwood Consulting, Biological Resources Technical Report Willow Springs Solar Array (December 2011) at p. 20.

⁶¹ Ironwood Consulting, Biological Resources Technical Report Willow Springs Solar Array (December 2011) at pp. 20-21.

⁶² Smallwood Comments.

Antelope Valley has been estimated to consist of just 10 pairs of nesting hawks⁶³. The DEIR must be revised to disclose that the 12 Swainson's hawks that were observed relying on foraging habitat on or adjacent to the Project site represent 60% of the Swainson's hawk population in Antelope Valley.⁶⁴ Accordingly, not only is there no evidence to support the claim that this habitat is "low quality," the available evidence demonstrates the exact habitat – that this is critical foraging habitat whose loss directly threatens the continued viability of the small, satellite Antelope Valley population of the Swainson's hawk.⁶⁵

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By mischaracterizing the Project site as "low quality" foraging habitat, the DEIR misleads the public and the decisionmakers as to the true impacts from the conversion of this property and precludes informed decisionmaking regarding appropriated mitigation or alternatives. The DEIR must be revised to correct this error and allow public comment on the proposals given this new information.

D. The DEIR Fails to Disclose or Investigate the Likely Occurrence of Eleven Special Status Species and Incorrectly Designates Five Special Status Species as Having a Low Likelihood of Occurrence

The DEIR fails to adequately disclose the Project setting due to its failure to disclose or investigate the likely occurrence of the following special status species: (1) pallid bat; (2) Western mastiff bat; (3) long-eared myotis; (4) fringed myotis; (5) long-legged myotis; (6) Yuma myotis; (7) northern harrier; (8) sharp-shinned hawk; (9) merlin; (10) peregrine falcon; and (11) barn owl.⁶⁶ Biologist Shawn Smallwood testifies that the geographic range maps of these species overlap the Project site and that the habitat descriptions for these species are consistent with the environment of the Project site.⁶⁷

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In addition, Mr. Smallwood testifies that the designations of "low likelihood of occurrence for Townsend's western big-eared bat, desert kit fox, Tehachapi pocket

⁶³ Smallwood Comments; California Energy Commission and Department of Fish and Game, Swainson's Hawk Survey Protocols, Impact Avoidance, and Minimization Measures for Renewable Energy Projects in the Antelope Valley of Los Angeles and Kern Counties, California (June 2, 2010).

⁶⁴ Smallwood Comments.

⁶⁵ Smallwood Comments.

⁶⁶ Smallwood Comments.

⁶⁷ Smallwood Comments.

mouse, silvery legless lizard, and coast horned lizard are not supported by substantial evidence because no directed surveys were performed to determine their potential presence.⁶⁸ No acoustic detection was attempted for bats, including the use of species recognition tools using sonograms. No directed surveys for desert kit fox were performed. For Tehachapi pocket mouse, searches for their burrows and tail drags would have been needed, followed by live-trapping in the areas of potential activity.⁶⁹ Focused surveys would have been needed to conclude absence of silvery legless lizard and coast horned lizard, including searches for tracks and use of cover boards and raking.⁷⁰

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The failure to accurately disclose and investigate the potential presence of special status species on the Project site precluded informed evaluation of the Project's potential impacts and identification of appropriate mitigation for those impacts. As a result, the Project's evaluation of impacts on biological resources is incomplete and its conclusions are not supported by substantial evidence.

III. THE COUNTY LACKS SUBSTANTIAL EVIDENCE TO SUPPORT ITS CONCLUSIONS IN THE DEIR REGARDING THE PROJECT'S SIGNIFICANT IMPACTS AND FAILS TO INCORPORATE ALL FEASIBLE MITIGATION

CEQA has two basic purposes, neither of which the DEIR satisfies. First, CEQA is designed to inform decisionmakers and the public about the potentially significant environmental impacts of a Project before harm is done to the environment.⁷¹ The DEIR is the "heart" of this requirement.⁷² The DEIR has been described as "an environmental 'alarm bell' whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return."⁷³

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⁶⁸ Smallwood Comments.

⁶⁹ Smallwood Comments.

⁷⁰ Smallwood Comments.

⁷¹ CEQA Guidelines § 15002(a)(1); *Berkeley Keep Jets Over the Bay v. Bd. of Port Commissioners*, (2001) 91 Cal.App.4th 1344, 1354; *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.

⁷² *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 84.

⁷³ *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.

To fulfill this function, the discussion of impacts in a DEIR must be detailed, complete, and “reflect a good faith effort at full disclosure.”⁷⁴ An adequate DEIR must contain facts and analysis, not just an agency’s conclusions.⁷⁵ CEQA requires a DEIR to disclose all potential direct and indirect, potentially significant environmental impacts of a project.⁷⁶

Second, if a DEIR identifies potentially significant impacts, it must then propose and evaluate mitigation measures to minimize these impacts.⁷⁷ CEQA imposes an affirmative obligation on agencies to avoid or reduce environmental harm by adopting feasible project alternatives or mitigation measures.⁷⁸ Without an adequate analysis and description of feasible mitigation measures, it would be impossible for agencies relying upon the DEIR to meet this obligation.

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Under CEQA, an EIR must not only discuss measures to avoid or minimize adverse impacts, but must ensure that mitigation conditions are fully enforceable through permit conditions, agreements, or other legally binding instruments.⁷⁹ A CEQA lead agency is precluded from making the required CEQA findings unless the record shows that all uncertainties regarding the mitigation of impacts have been resolved; an agency may not rely on mitigation measures of uncertain efficacy or feasibility.⁸⁰ This approach helps “insure the integrity of the process of decision by precluding stubborn problems or serious criticism from being swept under the rug.”⁸¹

In this case, the DEIR fails to satisfy the basic purposes of CEQA. The DEIR’s conclusions regarding, impacts to air, agricultural, biological and water resources, and regarding impacts from the presence of hazards and hazardous

⁷⁴ CEQA Guidelines § 15151; *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 721-722.

⁷⁵ See *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 568.

⁷⁶ Pub. Resources Code § 21100(b)(1); CEQA Guidelines § 15126.2(a).

⁷⁷ Pub. Resources Code §§ 21002.1(a), 21100(b)(3); CEQA Guidelines § 15002(a)(2) and (3); *Berkeley Keep Jets Over the Bay v. Bd. of Port Commissioners*. (2001) 91 Cal.App.4th 1344, 1354; *Laurel Heights Improvement Assn. v. Regents of the University of Cal.* (1998) 47 Cal.3d 376, 400.

⁷⁸ Pub. Resources Code §§ 21002-21002.1.

⁷⁹ CEQA Guidelines, § 15126.4, subd. (a)(2).

⁸⁰ *Kings County Farm Bur. v. County of Hanford* (1990) 221 Cal.App.3d 692, 727-28 (a groundwater purchase agreement was inadequate mitigation because there was no record evidence that replacement water was available).

⁸¹ *Concerned Citizens of Costa Mesa, Inc. v. 32nd Dist. Agricultural Assn.* (1986) 42 Cal.3d 929, 935.

materials, are not supported by substantial evidence. In preparing the DEIR, the County: (1) failed to provide sufficient information to inform the public and decisionmakers about potential environmental impacts; (2) failed to accurately identify and adequately analyze all potentially significant environmental impacts; (3) failed to incorporate adequate measures to mitigate environmental impacts to a less than significant level; and (4) failed to support its findings with substantial evidence. The County must correct these shortcomings and recirculate a revised DEIR for public review and comment.

5-I

A. The DEIR's Agricultural Resource Analysis Is Not Supported by Substantial Evidence and Relies on an Incorrect, Inconsistent and Misleading Baseline

The DEIR's conclusion that the Project's conversion of agricultural land to non-agricultural uses is not a significant impact contradicts the County's own threshold of significance, relies upon an incorrect, inconsistent and misleading baseline, violates the County's own policies for evaluating the conversion of agricultural land to Solar PV use, and arbitrarily ignores the expert opinion of the California Department of Conservation.

As set forth in the DEIR and the Kern County CEQA Implementation Document, the threshold for determining whether a project's impact on agricultural resources will be significant is if it: "Converts Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural uses."⁸² The DEIR states that the Project site contains 119.5 acres of Prime Farmland, 198.1 acres of Farmland of Statewide Importance and 113.2 acres of Unique Farmland, as shown on the 2012 maps pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. Accordingly, the Project's conversion of this designated farmland to non-agricultural is a significant impact under the threshold of significance established by Kern County and set forth in the DEIR.

5-J

The DEIR nonetheless declines to find the conversion of Project farmland to be significant on the grounds that: (1) these parcels would not be considered Prime Farmland, Farmland of Statewide Importance or Unique Farmland in future

⁸² DEIR, p. 4.2-10.

mapping exercises because the Project site has not been actively farmed for more than 5 years; and (2) that the Project does not have long-term viability for farmland use due to the increasing scarcity and price of water. The threshold of significance established by Kern County and the DEIR, however, does not depend on speculation of how farmland would be designated in “future mapping exercises.” Instead, it determines significance based upon the land’s current designation on the Farmland Mapping and Monitoring Program maps. The DEIR’s failure to apply its own threshold of significance is arbitrary and capricious.

Moreover, the DEIR’s conclusion that the site does not contain significant Prime, Important or Unique Farmland due to the lack of regular or recent agricultural activity on the parcels is not supported by substantial evidence and relies on an incorrect and inconsistent baseline analysis. In particular, the DEIR fails to take into account that the cessation of agricultural activities on the Project property coincided with the filing of the application for this Project and the filing of the Notice of Preparation (“NOP”). Prior to the filing of the NOP in 2010, satellite photos show that the Project site supported regular agricultural activities for the past 50 years, if not longer.⁸³ It was only upon the current application for this Project that agricultural activities ceased.

CEQA guidelines require “a description of the physical conditions in the vicinity of the project, as they exist at the time the notice of preparation is published and specifies that this environmental setting will normally constitute the baseline.”⁸⁴ Here, the NOP was issued in 2010, so the baseline environmental setting for agricultural resources would be the agricultural activity that occurred in the years immediately prior to the issuance of the NOP. The Supreme Court has stated that the reason for looking at conditions at the time of the NOP is so that a “temporary lull or spike in operations that happens to occur at the time environmental review for a new project begins should not depress or elevate the baseline.”⁸⁵ Otherwise applicants would be encouraged to suspend or increase operations artificially, simply in order to establish a more favorable baseline.⁸⁶

5-J

⁸³ Hagemann Comments.

⁸⁴ CEQA Guidelines section 15125, subd. (a).

⁸⁵ *Communities for a Better Environment v. South Coast Air Quality Management District* (2010) 48 Cal.4th 310, 328.

⁸⁶ *Id.*

Furthermore, the DEIR's reliance on the cessation of agricultural activities during the pendency of this environmental review directly contradicts the DEIR's reliance on the agricultural activities occurring during the five years prior to the NOP for its analysis of water supply impacts. In its water analysis, the DEIR establishes the baseline water use for the Project site by looking at the estimated water use during agricultural activities from 2005 to 2009. Pursuant to this analysis, the DEIR determines that the baseline water use for this Project is 1400 acre feet per year, even though the Project has not used any water since 2009. The DEIR's cherry picking of favorable baselines is arbitrary and contradictory, rendering its analysis of both agricultural impacts and water supply impacts legally inadequate.

The assumption that agricultural activity on the Project site would have to cease because of water limitations is also not supported by any analysis or substantial evidence. The water supply assessment prepared for the Project states that the agricultural properties have vested groundwater rights and have historically used up to 1400 acre feet of water per year. While adjudication of these groundwater rights is ongoing, the DEIR estimates that these water rights may be reduced by up to 35%. Assuming maximum Groundwater extraction rights of 1400 acre feet per year, a 35% reduction of 1400 acre feet would be 910 acre feet. According to Table 2 of the water supply assessment, the amount of water used in two of the last five years of agricultural production was well under 910 acre feet, with one other year just a little over 910 acre feet. The assumption that water limitations would make it impossible or highly unlikely that agricultural activities would continue on these sites is simply not supported by the evidence in the record.

The assumption that agricultural activities on this Project would cease on these parcels even without this Project is also contradicted by the DEIR's assumption that indirect impacts from the conversion of this agricultural land would be less than significant because the entire Project would be rezoned for agricultural use and the Project would require a decommissioning plan and financial assurances to promote the conversion of the site back to agricultural when the Solar power plant ceased operations.⁸⁷ The DEIR cannot, on the one hand, assume that agricultural activities would resume at the end of the Project's operational life, and on the other hand assume that the property does not contain useful agricultural land.

⁸⁷ DEIR at p. 4.2-12.

In any case, the baseline to be considered when determining significant impacts is the current baseline of parcels designated as Prime, Important and Unique Farmland. Speculation as to whether the property would remain so designated or would abandon agricultural activities altogether is not relevant.

The DEIR's findings are also internally inconsistent. While the executive summary and Section 4.2 of the DEIR find that the conversion of Project farmland is a less than significant impact, Section 5.2 of the DEIR finds that this conversion of farmland would be a significant and unavoidable impact even after mitigation.⁸⁸ These numerous internal contradictions render the DEIR's findings regarding agricultural resources arbitrary and capricious.

The DEIR's analysis is also inadequate because it fails to consider and contradicts the expert comments submitted by the California Department of Conservation ("DOC"). The DOC submitted a letter dated April 7, 2010 in response to the NOP for this Project. This letter states that "the soils within the project boundaries are designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance." The DOC further finds that the "loss of agricultural land represents a permanent reduction in the State's agricultural land resources" and "should be deemed an impact of at least regional significance." DOC then recommends a variety of mitigation measures that should be imposed. These include requiring "permanent agricultural conservation easements on land of at least equal quality and size as partial compensation for the direct loss of agricultural land."

The DEIR not only fails to consider the DOC's expert findings and mitigation recommendations, it fails to disclose that DOC commented on the Project at all. Furthermore, DEIR Appendix A2, which claims to include all comments submitted on the NOP, does not include the DOC NOP comment letter.

The DEIR's analysis is also inadequate because it fails to comply with Kern County's own policies on evaluating and mitigating impacts related to the conversion of agricultural uses for solar development. As noted in the DEIR, Kern County Board of Supervisors approved a "Pathway for Processing Conversion of Agricultural Land to Solar PV Use in the Central Valley" ("Pathway Process").⁸⁹

⁸⁸ DEIR at p. 5.2.

⁸⁹ DEIR (at p. 4.2-12).

The Pathway Process requires staff to consider farmland to be productive if it has been designated Prime, Important or Unique Farmland and has been actively farmed five years or more out of the last ten years. Even if staff did not use the date of the NOP as the baseline for determining the significance of agricultural resources on the Project site, the project farmland would still be considered productive under the Pathway Process because it has been actively farmed for 5 of the past 10 years.⁹⁰ The DEIR's failure to apply the County's own CEQA guidelines for determining significance was arbitrary and capricious.

The DEIR also fails to consider and apply the mitigation measures set forth in the Pathway Process. Under the Pathway Process, if a site has been actively farmed for 5 of the past 10 years or is otherwise actively productive, then "CEQA will require mitigation for the loss of farmland at a ratio of 1 to 1." Replacement land must be in Kern County. In addition to the standard replacement land, the Project mitigation for land that has been actively farmed for 5 of the past 10 years must include one of the following: (a) replacement land shall be acquired at a ratio of up to 1.5 to 1; or (b) the Project shall fund, at an equivalent amount, a program that benefits the long term stability of agricultural production in Kern County, such as the Shafter Cotton Research Station, local FFA or 4-H organizations or agricultural pest management programs. In addition, the Pathway Process requires a condition to be placed on the project requiring the submittal of a vertebrate pest and weed management plan.

5-J

The DEIR must be revised to disclose that the conversion of farmland is a significant Project impact and to evaluate and establish mitigation measures to minimize these impacts, as set forth in the Pathway Process.

B. The DEIR Fails to Adequately Mitigate Cumulative Impacts to Agricultural Resources

The DEIR finds that the conversion of the Project site from agricultural land to non-agricultural uses would have significant and unavoidable cumulative impacts on the loss of agricultural land. Instead of requiring the purchase of

5-K

⁹⁰ Even if the Project site had been actively farmed for only one to four out of the last ten years, the Pathway Process would require the EIR to analyze the reasons why the site has not been farmed for more than four years to determine if the site is adequate for farming activities. Here, the primary reason the site has not been farmed is because of the pendency of this application.

compensatory mitigation land as set forth in the Pathway Process, the County instead relies upon Implementation of Mitigation Measure MM 4.2-1 to partially mitigate this impact. The reliance on Mitigation Measure MM 4.2-1 to partially mitigate this impact is arbitrary and capricious because this mitigation measure has no relevance to the cumulative loss of agricultural land.

MM 4.2-1 is intended to mitigate impacts that may occur if the operation of the Project finds itself in conflict with the operation of nearby agricultural activities. MM 4.2-1 requires only that the following note shall appear on all site plans, "The County of Kern encourages operation of properly conducted business in agriculture, oil, mining, manufacturing, and other nonresidential operations within the County. If the property you are purchasing is located near these businesses, you may be subject to inconveniences or discomforts arising from such operations to the extent allowed by law. This notice does not waive your legal rights." The DEIR fails to explain how this mitigation measure would, in any way, mitigate the cumulative impacts from the loss of agricultural resources due to solar projects in the region. The assumption that this mitigation measure minimizes the cumulative impacts of agricultural resource loss is not supported by substantial evidence. Moreover, because the cumulative impacts remain significant even with this "mitigation", the County must also consider all other feasible mitigation to determine if it also should be imposed. Such other feasible mitigation would include, at a minimum, the compensatory land mitigation set forth in the Pathway Process.

5-K

C. The DEIR Fails to Adequately Disclose, Analyze and Mitigate Significant Air Quality Impacts

The DEIR's evaluation of the Project's air quality impacts contains significant errors and omissions and, as a result, its conclusions are not supported by substantial evidence.⁹¹ Construction of the Project, which would occur over the course of approximately 24 months,⁹² would generate air pollutant emissions from fuel combustion and exhaust from construction equipment and vehicle traffic (construction worker commute and delivery truck trips) and grading and site work (construction equipment), as well as from fugitive dust particulate matter emissions due to grading, material handling, wind erosion, and re-entrained road dust from

5-L

⁹¹ Pless Comments.

⁹² DEIR at p. 3-21.

vehicle travel on paved and unpaved roads. The DEIR presents emission estimates for six air pollutants – reactive organic gases (“ROG”), nitrogen oxides (“NO_x”), carbon monoxide (“CO”), sulfur dioxide (“SO₂”), particulate matter equal to or smaller than 10 micrometers (“PM₁₀”), and particulate matter equal to or smaller than 2.5 micrometers (“PM_{2.5}”)⁹³ – and, based on a comparison with thresholds of significance established by the Eastern Kern Air Pollution Control District (“EKAPCD”), concludes that even with implementation of the recommended mitigation measures, Project construction would result in significant and unavoidable impacts on air quality due to emissions of NO_x, CO, and PM₁₀ and would result in a cumulatively considerable net increase for these pollutants.⁹⁴ For the reasons discussed below, the DEIR’s analysis is substantially flawed and fails to identify and adequately mitigate significant impacts on air quality.

5-L

1. The DEIR Estimates Construction Emissions Using an Outdated Computer Model In Violate of County Policy

The DEIR’s emission estimates for the construction phase of the Project were prepared using the California Emissions Estimator Model (“CalEEMod”), version 2011.1.1.⁹⁵ This version of the model has been superseded three times by versions 2013.2, 2013.2.1, and 2013.2 which were released in July 2013, September 2013, and October 2013, respectively. Compared to version 2011.1.1, these versions incorporated revised emission factors for entrained fugitive road dust emissions; incorporated the California Air Resources Board’s EMFAC2011 and OFFROAD databases; added nitrous oxide (“N₂O”) calculations from off-road and on-road sources; corrected the unmitigated fugitive dust emissions of PM₁₀ from haul trucks; updated climate zone options; and modified the running loss equation for emissions of ROG from on-road vehicles to match emission factors (per vehicle trip instead of per mile driven).⁹⁶

5-M

The County’s 2006 *Guidelines for Preparing an Air Quality Assessment for Use in Environmental Impact Reports* specifically advise:

⁹³ DEIR at Tables 4.3-5 and 4.3-6.

⁹⁴ DEIR at pp. 4.3-36 and 4.3-42.

⁹⁵ Pless Comments; DEIR at Table 4.3-5.

⁹⁶ Pless Comments; CalEEMod, List of Revisions; <http://www.aqmd.gov/docs/default-source/caleemod/Model/2013.2.2/revisions-2013-2-2.pdf?sfvrsn=0>.

The latest version of all models shall be used for the appropriate application. It is the responsibility of the air quality preparer to use professional judgment in ensuring that the very latest version of a model is used. For purposes of timing, the determination of whether a model is current or not shall be based on when the EIR is being printed for distribution to the public, not when the administrative draft is submitted to the County.⁹⁷

At the time the DEIR was printed for distribution to the public, February 2015, the latest version of CalEEMod was version 2013.2.2.⁹⁸ The DEIR's reliance on out-of-date air modeling violates the County's own guidelines and is arbitrary and capricious. Moreover, when combined with the other errors in the air quality analysis, the reliance on the out-of-date air modeling renders the DEIR's conclusion regarding the significance of air quality impacts unreliable and unsupported by substantial evidence. This error, in conjunction with the other errors set forth herein, results in substantially underestimated air quality impacts, rendering the DEIR deficient as an informational document and rendering the DEIR's findings unreliable and unsupported by substantial evidence.⁹⁹ A revised DEIR must be prepared using the latest CalEEMod version to ensure accurate emission estimates and analysis of associated impacts on air quality during Project construction.

5-M

2. The DEIR's Emission Estimates Are Improperly Phased for Determining the Significance of Annual Project Construction Emissions

The DEIR relies on the EKAPCD's annual thresholds of significance to assess impacts on air quality during construction, which, according to the DEIR, would last approximately 24 months.¹⁰⁰ Yet, rather than comparing construction emissions for two consecutive 12-month periods to the EKAPCD's annual thresholds of significance, the DEIR arbitrarily splits the construction period into three calendar years starting in July 2013, as shown in the following chart. What's more,

5-N

⁹⁷ County of Kern, Guidelines for Preparing an Air Quality Assessment for Use in Environmental Impact Reports, December 1, 2006; <http://www.co.kern.ca.us/planning/pdfs/AirQualityAssessmentPreparationGuidelines.pdf>.

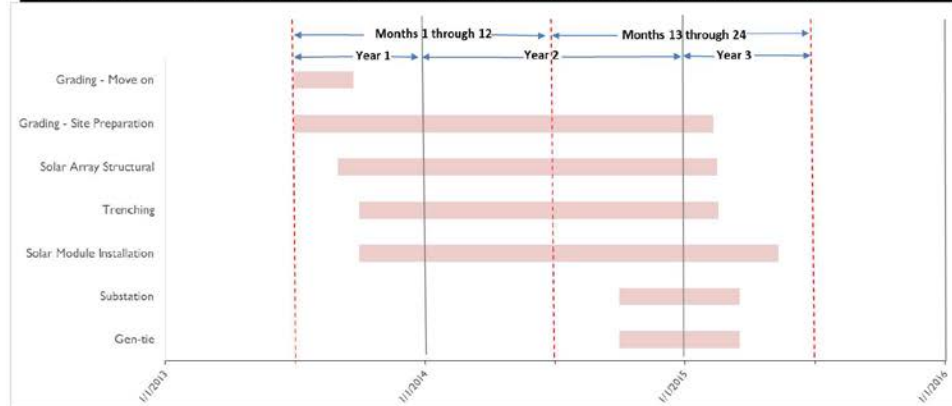
⁹⁸ Pless Comments.

⁹⁹ Pless Comments.

¹⁰⁰ DEIR at p. 3-21.

the DEIR estimates construction for only 21 months (July 2013 through March 2015), rather than 24 months.¹⁰¹

Construction phasing used by DEIR for CalEEMod quantification of construction emissions



5-N

This approach arbitrarily and misleadingly distributes 21 months of construction emissions over three calendar years. As a result of this manipulation, the DEIR incorrectly finds that mitigated construction emissions for all pollutants in Year 1 (July 2013 through December 2013) and Year 3 (January 2015 through March 2015) would be below the EKAPCD's annual significance thresholds and would therefore not be significant. Since the actual start of Project construction is not foreseeable, emissions should be estimated for consecutive 12-month periods.¹⁰²

Air quality expert Petra Pless prepared mitigated construction emissions for two 12-month periods based on the DEIR's emission estimates, adjusting emissions for the number of months each construction phase would occur during a 12-month construction period. The tables below compares Project emissions estimated for the two consecutive 12-month construction periods to thresholds of significance established by the EKAPCD.¹⁰³

¹⁰¹ Pless Comments.

¹⁰² Pless Comments.

¹⁰³ Pless Comments.

Mitigated construction emissions for Months 1 through 12 (in tons/year)

Construction Phase	Months	ROG	NOx	CO	SO ₂	PM10	PM2.5
Grading – Move On	3	0.57	3.81	3.45	0.01	0.55	0.25
Grading – Site Preparation	12	2.62	16.66	13.90	0.02	14.08	2.50
Solar Array Structural	10	0.80	3.83	10.25	-	0.65	0.30
Solar Module Installation	9	1.38	5.58	8.94	-	0.93	0.36
Trenching	9	1.68	5.85	6.15	-	0.54	0.42
Substation Construction	-	-	-	-	-	-	-
Gen-tie Line Construction	-	-	-	-	-	-	-
Water Consumption	12	0.92	9.80	5.68	0.06	0.38	0.36
Total		7.97	45.53	48.37	0.09	17.13	22.96
EKAPCD Threshold of Significance		25	25	25	27	15	-
Significant?		no	YES	YES	no	YES	-

Mitigated construction emissions for Months 13 through 24 (in tons/year)

Construction Phase	Months	ROG	NOx	CO	SO ₂	PM10	PM2.5
Grading – Move On	-	-	-	-	-	-	-
Grading – Site Preparation	12	2.90	18.37	14.70	0.03	13.74	1.82
Solar Array Structural	12	1.02	4.98	8.50	0.01	0.86	0.38
Solar Module Installation	12	2.25	9.10	14.15	0.02	1.58	0.61
Trenching	12	3.08	10.70	10.92	0.02	1.00	0.75
Substation Construction	6	0.76	4.60	3.68	-	0.42	0.28
Gen-tie Line Construction	6	0.54	3.36	3.18	-	0.28	0.20
Water Consumption	12	0.91	9.80	5.67	0.05	0.37	0.35
Total		11.46	60.91	60.80	0.13	18.25	4.39
EKAPCD Threshold of Significance		25	25	25	27	15	-
Significant?		no	YES	YES	no	YES	-

5-N

As shown, Project construction would emit NOx, CO, and PM10 at levels exceeding the EKAPCD's annual thresholds of significance during both 12-month construction periods even based on the DEIR's estimates for mitigated emissions. Contrary to what the DEIR suggests, these emissions will not be reduced by the proposed mitigation measures because their control efficiency is already accounted for in the mitigated emission estimates.¹⁰⁴ Further, as discussed below, the DEIR's mitigated emission calculations relied upon in the above tables are substantially

¹⁰⁴ Pless Comments.

underestimated. When corrected, mitigated emissions of ROG will also likely exceed the EKACPD's threshold of significance.¹⁰⁵

5-N

3. The DEIR Underestimates Construction Emissions by Failing to Use the Correct Wind Speed in its Air Modeling Calculations

Construction of the Project would result in emissions of fugitive dust particulate matter particularly during grading of and cut-and-fill activities at the site, as well as from wind erosion of graded areas and storage piles. Fugitive dust emissions increase with increasing wind speed.¹⁰⁶ The DEIR states that average wind speed in the Project area ranges from 5.1 to 7.6 miles per hour ("mph") throughout the year.¹⁰⁷ However, the DEIR's estimates for emission of particulate matter, modeled with CalEEMod, rely on an average wind speed of only 2.7 mph,¹⁰⁸ and, thus, underestimate fugitive emissions of PM10 and PM2.5.¹⁰⁹ The DEIR must be revised to disclose and evaluate PM10 and PM2.5 using the correct average wind speed for the Project site. This error, in conjunction with the other errors set forth herein, results in substantially underestimated air quality impacts, rendering the DEIR deficient as an informational document and rendering the DEIR's findings unreliable and unsupported by substantial evidence.¹¹⁰ A revised DEIR must be prepared using the correct wind speed in the air modeling calculations to ensure accurate emission estimates and analysis of associated impacts on air quality during Project construction.

5-O

¹⁰⁵ Pless Comments.

¹⁰⁶ Pless Comments; see EPA, *Compilation of Air Pollutant Emission Factors* (November 2006) § 13.2.4 Aggregate Handling and Storage Piles [13.2.4.3 Predictive Emission Factor Equations include a multiplier "U" defined as "mean wind speed"] and §13.2.5 Industrial Wind Erosion [13.2.5.3 Predictive Emission Factor Equation includes a multiplier "P_i" defined as "erosion potential corresponding to the observed (or probable) fastest mile of wind for the ith period between disturbances"], available at <http://www.epa.gov/ttn/chieff/ap42/ch13/final/c13s0204.pdf> and <http://www.epa.gov/ttn/chieff/ap42/ch13/final/c13s0205.pdf>.

¹⁰⁷ DEIR at p. 4.3-1.

¹⁰⁸ See DEIR, Appendix E.

¹⁰⁹ Pless Comments.

¹¹⁰ Pless Comments.

4. The DEIR Underestimates Construction Emissions by Failing to Include Construction and Operation of the Temporary Concrete Batch Plant

Construction of the footings and foundations for the solar arrays and concrete pads for the substation and O&M building would require large amounts of concrete.¹¹¹ The DEIR's executive summary states that the Project includes seeking a CUP to allow for construction of an on-site temporary concrete batch plant.¹¹² Yet, the DEIR air quality section does not quantify emissions associated with raw material delivery and operation of a concrete batch plant; instead the DEIR's air quality analysis assumes that concrete would be delivered to the Project site from a local source approximately 40 miles away and assuming 3,480 one-way deliveries.¹¹³

Dr. Pless testifies that constructing and operating an on-site temporary concrete batch plant instead of trucking concrete in from 40 miles away will not reduce project emissions. To the contrary, the on-site temporary concrete batch plant is likely to increase emissions, resulting in the DEIR's air quality analysis understating Project impacts.¹¹⁴

First, on-site concrete batching requires delivery of a number of raw materials including cement, sand, coarse aggregate (gravel, crushed stone, iron blast furnace slag, barite, magnetite, limonite, ilmenite, iron, steel, sintered clay, shale, slate, diatomaceous shale, perlite, vermiculite, slag pumice, cinders, or sintered fly ash) and supplementary cementitious materials, also called pozzolans, (natural pozzolans, fly ash, ground granulated blast-furnace slag, and silica fume) which make the concrete mixtures more economical, reduce permeability, increase strength, or influence other concrete properties.¹¹⁵ These materials would likely come from considerably further distances than the 40 miles assumed by the DEIR for the local source of concrete. Thus, exhaust and re-entrained road dust emissions are likely substantially underestimated.¹¹⁶

¹¹¹ DEIR at p. 4.3-27.

¹¹² DEIR at p. 1-1.

¹¹³ Pless Comments; DEIR at p. 4.3-27.

¹¹⁴ Pless Comments.

¹¹⁵ EPA, AP-42, 11.12 Concrete Batching, June 2006; <http://www.epa.gov/ttnchie1/ap42/ch11/final/c11s12.pdf>.

¹¹⁶ Pless Comments.

Second, on-site manufacture of concrete would require substantial amounts of water, which may be delivered via truck if groundwater water rights are curtailed as expected by the ongoing adjudication.¹¹⁷ The DEIR only accounts for the availability of 900 acre-feet of groundwater for drinking water, soil conditioning, and dust suppression; it does not evaluate water availability for concrete batching.¹¹⁸ Furthermore, combustion exhaust emissions from trucks delivering water to the site must be included in the emission estimates.¹¹⁹

Third, in addition to off-site vehicle exhaust and entrained fugitive road dust emissions associated with material deliveries, an onsite batch plant would generate fugitive particulate matter emissions.¹²⁰ These emissions would consist primarily of cement and pozzolan dust, along with some aggregate and sand dust emissions. Particulate matter from concrete batch plants also often contains metals. Point source emissions come from the transfer of cement and pozzolan material to silos, and these are usually vented to a fabric filter. Fugitive sources include the transfer of sand and aggregate, truck loading, mixer loading, vehicle traffic, and wind erosion from sand and aggregate storage piles.¹²¹ These emissions can be estimated based on equations and emission factors *Compilation of Air Pollutant Emission Factors* ("AP-42"), Section 11.12 Concrete Batching, developed by the U.S. Environmental Protection Agency ("EPA").¹²²

5-P

Fourth, a concrete batch plant requires electricity to power a variety of equipment including mixers, cement batchers, aggregate batchers, conveyors, chillers, dust collectors, etc.¹²³ Given the location of the Project site, electricity will likely be generated by a diesel-powered engine. Combustion exhaust from this diesel engine must be included in the emission estimates. Diesel engine emissions may also pose significant health risks to nearby residents.¹²⁴ These risks must also be evaluated in a revised EIR.

¹¹⁷ DEIR at p. 3-24.

¹¹⁸ DEIR at p. 3-24.

¹¹⁹ Pless Comments.

¹²⁰ Pless Comments.

¹²¹ Pless Comments.

¹²² Pless Comments.

¹²³ Pless Comments.

¹²⁴ Pless Comments.

The failure to evaluate emissions from the concrete batch plant, in conjunction with the other errors set forth herein, results in substantially underestimated air quality impacts, rendering the DEIR deficient as an informational document and rendering the DEIR's findings unreliable and unsupported by substantial evidence. A revised DEIR must be prepared that includes evaluation of emissions related to the concrete batch plant to ensure accurate emission estimates and analysis of associated impacts on air quality during Project construction.

5-P

5. The DEIR Fails to Properly Determine the Significance of Particulate Matter Concentrations Resulting from Project Construction

Project construction may result in exposure of sensitive receptors to substantial pollutant concentrations. Sensitive receptors are defined as land uses where sensitive population groups (e.g., children, the elderly, the acutely ill and the chronically ill) are located. These land uses include residences, schools, childcare centers, retirement homes, convalescent homes, medical care facilities, and recreational facilities.¹²⁵ The DEIR, Table 4.3-1, identifies four residences within less than half a mile of the Project site as sensitive receptors; the closest residence is located 105 feet from the Project site.

5-Q

The DEIR presents modeled ambient concentrations of PM₁₀ and PM_{2.5} at the nearest residence of about 17 and 16 micrograms per cubic meter ("µg/m³"), respectively, to assess Project construction impacts on sensitive receptors. The DEIR recognizes that fugitive dust and exhaust particulate matter emissions generated during Project construction may adversely impact sensitive receptors. The DEIR states that these pollutant concentrations in ambient air would not exceed the respective 24-hour national or state ambient air quality standards ("NAAQS" and "CAAQS"); would only be temporary in nature; would not last over the entire duration of the Project's construction period; would disperse rapidly from the construction site; would not be concentrated in any one area; and would be mitigated by Mitigation Measures MM 4.3-1, MM 4.3-2, MM 4.3-5, and MM 4.3-10. Thus, the DEIR concludes, Project construction would not expose nearby sensitive receptors to a substantial increase in PM₁₀ and PM_{2.5} concentrations and impacts

¹²⁵ DEIR at p. 4.3-42.

on air quality would be less than significant.¹²⁶ This analysis is not supported by substantial evidence.

First, contrary to the County's explicit instructions in its 2006 *Guidelines for Preparing an Air Quality Assessment for Use in Environmental Impact Reports* to include all model outputs in EIRs,¹²⁷ the presented 24-hour concentrations of PM10 and PM2.5 in ambient air, allegedly modeled with EPA's AERSCREEN model,¹²⁸ are not supported by any modeling input/output files.¹²⁹

Second, the modeling results for the Project's construction emissions of 24-hour concentrations of PM10 and PM2.5 presented by the DEIR, 16.77 µg/m³ and 16.32 µg/m³ do not appear to actually be modeling results for this file, but rather appear to be the modeling results for the nearby Rosamond Solar Array Project. Dr. Pless testifies that the modeling results for the Project's construction emissions of 24-hour concentrations of PM10 and PM2.5 presented by the DEIR, 16.77 µg/m³ and 16.32 µg/m³, respectively, are exactly the same as those presented in the Recirculated DEIR for the nearby Rosamond Solar Array Project, which was prepared by the same consultant, RBF consulting.¹³⁰ Because the distances to the nearest sensitive receptors and the maximum daily emissions of PM10 and PM2.5 for the two projects determined with CalEEMod are not the same, the only explanation for this coincidence is that RBF Consulting inadvertently used the Rosamond Solar Array Project modeling results for the Willow Springs DEIR. Because the County has failed to support the modeling results with modeling input/output files, it lacks any substantial evidence to rebut the evidence that the

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¹²⁶ DEIR at pp. 4.3-43, 4.3-44.

¹²⁷ County of Kern, *Guidelines for Preparing an Air Quality Assessment for Use in Environmental Impact Reports*, p. 2 ("SCREEN3 or AERMOD modeling of maximum 24-hour average concentration of Primary PM10 and PM2.5 at the project boundary, with comparison to National Ambient Air Quality Standards (NAAQS), Kern County CEQA thresholds and the applicable Air District (San Joaquin Valley Air Pollution Control District and/or Kern County Air Pollution Control District) thresholds. The model output shall be included in the report.");

<http://www.co.kern.ca.us/planning/pdfs/AirQualityAssessmentPreparationGuidelines.pdf>.

¹²⁸ DEIR, Appendix E at p. 54.

¹²⁹ Pless Comments.

¹³⁰ Pless Comments; County of Kern, Rosamond Solar Array Project by Rosamond Solar, LLC, Recirculated Draft Environmental Impact Report, SCH# 2010031030, Revised July 2014 (hereafter "Rosamond Recirculated DEIR"), Table 4.3-8 and App. G, Table 8;

<http://pcd.kerndsa.com/planning/environmental-documents/334-rosamond-solar>.

Rosamond Solar Array Project modeling results were erroneously used for the Willow Springs DEIR.¹³¹

Third, even assuming arguendo, that the modeled 24-hour concentrations of PM10 and PM2.5 presented by the DEIR had been modeled correctly, review of the AERSCREEN modeling for the Rosamond Solar Array Project indicates that the modeling only took into account exhaust emissions of these pollutants. Dr. Pless reviewed the CalEEMod outputs for the Rosamond Solar Array Project and found that the daily emission rates calculated by RBF Consulting only accounted for combustion exhaust emissions and did not include fugitive dust emissions.¹³² In order to determine whether Project construction emissions would result in a violation or contribute substantially to an existing violation of an ambient air quality standard, all emission sources must be accounted, not just source emissions. The table below presents revised maximum 24-hour ambient concentrations of PM10 and PM2.5 including fugitive dust and exhaust emissions for the Rosamond Solar Array Project, as calculated by Dr. Pless.¹³³

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Revised 24-hour ambient concentrations of PM10 and PM2.5 from Rosamond Solar Array Project construction emissions at nearest sensitive receptor compared to CAAQS and NAAQS (exceedances bold)

	PM10	PM2.5
<i>Maximum daily emissions</i>	(lbs/day)	(lbs/day)
Fugitive dust	300.04	3.87
Exhaust	28.57	27.79
Total	328.97	31.66
<i>Maximum 24-hour ambient concentration at nearest sensitive receptor</i>	(µg/m³)	(µg/m³)
Modeled	16.77	16.32
Revised	193.09	18.59
NAAQS	150	35
CAAQS	50	— ^e

As shown, the revised maximum 24-hour ambient concentration of PM10 at the nearest sensitive receptor resulting from construction emissions including fugitive dust and exhaust emissions, 193 µg/m³, are high enough to result in a violation of the state and national 24-hour ambient air quality standards of 50 µg/m³ and 150 µg/m³, respectively.

¹³¹ Pless Comments.

¹³² Pless Comments.

¹³³ Pless Comments.

Without access to the modeling input/output files, there is no evidence that RBF Consulting did not make the same error here. Using the same approach for the Project, assuming, *arguendo*, that the PM10 and PM2.5 24-hour concentrations presented in DEIR, Table 4.3-8, had been correctly modeled for Project construction exhaust emissions, revised total 24-hour concentrations of PM10 and PM2.5 including fugitive dust emissions are estimated by Dr. Pless in the table below.¹³⁴

Revised 24-hour ambient concentrations of PM10 and PM2.5 at nearest sensitive receptor from Project construction emissions compared to CAAQS and NAAQS (exceedances bold)

<i>Maximum daily emissions (lbs/day)</i>	PM10 Emissions	PM10 Emissions
Fugitive dust	122.40	4.09
Exhaust	28.57	27.79
Total	150.97	31.88
<i>Maximum ambient concentration at nearest sensitive receptor (µg/m³)</i>	24-hour PM10	24-hour PM2.5
Modeled	16.77	16.32
Revised	88.61	18.72
NAAQS	150	35
CAAQS	50	- ^e

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As shown, the revised maximum 24-hour ambient concentration of PM10 at the nearest sensitive receptor resulting from Project construction emissions including fugitive dust and exhaust emissions, 87 µg/m³, are high enough to result in a violation of the state 24-hour ambient air quality standard of 50 µg/m³. These results would not be reduced by implementation of the proposed mitigation measures as they represent mitigated emissions which already include the control efficiency of the proposed mitigation measures. Moreover, these measures do not take into account additional emissions that would result from the operation of the concrete batch plant and the diesel generator necessary to operate the batch plant. This is a new significant impact that was not identified by the DEIR.¹³⁵ Accordingly, a revised DEIR must be prepared to disclose this impact and identify feasible mitigation measures to minimize impacts from these emissions.

Fourth, the County's 2006 Guidelines for Preparing an Air Quality Assessment for Use in Environmental Impact Reports explicitly recommend that 24-hour concentrations of PM10 and PM2.5 in ambient air be modeled at the Project

¹³⁴ Pless Comments.

¹³⁵ Pless Comments.

boundary; here, the DEIR presents modeling conducted for the nearest sensitive receptor, rather than the Project boundary.¹³⁶

SCREEN3 or AERMOD modeling of maximum 24-hour average concentration of Primary PM10 and PM2.5 *at the project boundary*, with comparison to National Ambient Air Quality Standards (NAAQS), Kern County CEQA thresholds and the applicable Air District (San Joaquin Valley Air Pollution Control District and/or Kern County Air Pollution Control District) thresholds. The model output shall be included in the report.¹³⁷

This error, in conjunction with the other errors set forth herein, results in substantially underestimated air quality impacts, rendering the DEIR deficient as an informational document and rendering the DEIR's findings unreliable and unsupported by substantial evidence.

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Fifth, the DEIR fails to take into account existing harmful PM10 and PM2.5 concentrations.¹³⁸ The Mojave Desert Air Basin is in nonattainment for particulate matter and background PM concentrations already exceed the most stringent ambient air quality standards. The DEIR, however, fails to include background concentrations when determining whether Project construction PM10 and PM2.5 concentrations will be harmful to nearby sensitive receptors.¹³⁹ This approach improperly suggests that the Project's PM10 and PM2.5 emissions are not harmful to these receptors. The determination of significance in this case is not whether Project construction emissions would by themselves result in exceedances of ambient air quality standards, but rather whether they would contribute significantly to an existing violation of ambient air quality standards.¹⁴⁰

¹³⁶ Pless Comments.

¹³⁷ County of Kern, Guidelines for Preparing an Air Quality Assessment for Use in Environmental Impact Reports, December 1, 2006;
<http://www.co.kern.ca.us/planning/pdfs/AirQualityAssessmentPreparationGuidelines.pdf>.

¹³⁸ Pless Comments.

¹³⁹ Pless Comments; DEIR at Table 4.3-8.

¹⁴⁰ Pless Comments.

In the table below, Dr. Pless summarizes the 24-hour ambient concentrations of PM10 and PM2.5 attributable to Project construction and including background concentrations.¹⁴¹

24-hour ambient concentrations of PM10 and PM2.5 at nearest sensitive receptor

	24-hour PM10 ($\mu\text{g}/\text{m}^3$)	24-hour PM2.5 ($\mu\text{g}/\text{m}^3$)
Maximum ambient concentration at nearest sensitive receptor	88.61	18.72
Background concentration	131.5	76.2
Total ambient concentration at nearest sensitive receptor	220.1	95.0
NAAQS	150	35
CAAQS	50	- ^e

As shown above, the total 24-hour ambient concentrations of PM10 at the nearest sensitive receptor is 220.1 $\mu\text{g}/\text{m}^3$. This greatly exceeds the NAAQS threshold of 150 $\mu\text{g}/\text{m}^3$ and the CAAQS threshold of 50 $\mu\text{g}/\text{m}^3$ for this pollutant. In addition, the total 24-hour concentrations of PM2.5 far exceed the NAAQS threshold of 35 $\mu\text{g}/\text{m}^3$. The contribution of Project emissions to these exceedances are 40 percent for PM10 and 20 percent for PM2.5, respectively, high enough to constitute a significant contribution to existing violations of ambient air quality standards.

This is a new significant impact that was not identified by the DEIR.¹⁴² Accordingly, a revised DEIR must be prepared to disclose this impact and identify feasible mitigation measures to minimize impacts from these emissions.

6. The DEIR Fails to Properly Determine Exposure of Sensitive Receptors to Toxic Air Contaminants

The DEIR recognizes that sensitive receptors would be exposed to emissions of toxic air contaminants ("TACs") during Project construction, in particular, to diesel particulate matter ("DPM") emissions from the operation of heavy-duty vehicle and construction equipment at the Project site.¹⁴³ However, the DEIR claims that under the guidelines for health risk assessments published by the Office of Environmental Health Hazard Assessment ("OEHHA") and the California Air Pollution Control Officers Association ("CAPCOA"), "estimating the cancer risk from

¹⁴¹ Pless Comments.

¹⁴² Pless Comments.

¹⁴³ DEIR at p. 4.3-44.

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diesel engine particulate is typically not required for construction activities, as they occur for a short period of time and therefore would not measurably increase cancer risk.” Therefore, the DEIR concludes, “impacts from TACs would be less than significant.”¹⁴⁴ The DEIR’s claims regarding OEHHA and CAPCOA guidance for construction projects is incorrect, and, thus, the DEIR’s conclusion is not supported by substantial evidence.¹⁴⁵

Contrary to the DEIR’s assumption, OEHHA’s 2012 guidelines for preparation of health risk assessments explicitly recommend evaluation of short-term projects:

We recommend that exposure from projects less than 6 months be assumed to last 6 months (e.g., a 2-month project would be evaluated as if it lasted 6 months). Exposure from projects lasting less than two months would not be evaluated for cancer risk. *We recommend that exposure from projects lasting more than 6 months be evaluated for the duration of the project.* In all cases the exposure should be assumed to start in the third trimester to allow for the use of the Age Sensitivity Factors (OEHHA, 2009). Thus, if the District is evaluating a proposed 5-year mitigation project at a hazardous waste site, the exposure duration for the residents would be from the third trimester through the first five years of life. The exposure duration for the offsite worker scenario would be five years in this case.¹⁴⁶

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The OEHHA’s new guidelines for preparation of health risk assessments, adopted February 2015, are even more explicit with respect to evaluating the potential cancer risks associated with short-term projects for the maximum exposed individual resident and worker (“MEIR” and “MEIW,” respectively):

Cancer potency factors are based on animal lifetime studies or worker studies where there is long-term exposure to the carcinogenic agent. There is considerable uncertainty in trying to evaluate the cancer risk from projects that will only last a small fraction of a lifetime. There are

¹⁴⁴ *Id.*

¹⁴⁵ Pless Comments.

¹⁴⁶ OEHHA, Air Toxics Hot Spots Program Risk Assessment Guidelines, Technical Support Document for Exposure Assessment and Stochastic Analysis, August 2012, p. 11-5 (*emphasis added*); http://oehha.ca.gov/air/hot_spots/tsd082712.html/.

some studies indicating that dose rate changes the potency of a given dose of a carcinogenic chemical. In other words, a dose delivered over a short time period may have a different potency than the same dose delivered over a lifetime.

The OEHHA's evaluation of the impact of early-in-life exposure has reduced some of the uncertainty in evaluating the cancer risk to the general population for shorter-term exposures, as it helps account for susceptibility to carcinogens by age at exposure (OEHHA, 2009).

Due to the uncertainty in assessing cancer risk from very short-term exposures, we do not recommend assessing cancer risk for projects lasting less than two months at the MEIR. *We recommend that exposure from projects longer than 2 months but less than 6 months be assumed to last 6 months (e.g., a 2-month project would be evaluated as if it lasted 6 months). Exposure from projects lasting more than 6 months should be evaluated for the duration of the project.* In all cases, for assessing risk to residential receptors, the exposure should be assumed to start in the third trimester to allow for the use of the ASFs (OEHHA, 2009). Thus, for example, if the District is evaluating a proposed 5-year mitigation project at a hazardous waste site, the cancer risks for the residents would be calculated based on exposures starting in the third trimester through the first five years of life.

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Finally, the risk manager may want to consider a lower cancer risk threshold for risk management for very short-term projects. Typical District guidelines for evaluating risk management of Hot Spots facilities range around a cancer risk of 1 per 100,000 exposed persons as a trigger for risk management. Permitting thresholds also vary for each District. There is valid scientific concern that the rate of exposure may influence the risk – in other words, a higher exposure to a carcinogen over a short period of time may be a greater risk than the same total exposure spread over a much longer time period. In addition, it is inappropriate from a public health perspective to allow a lifetime acceptable risk to accrue in a short period of time (e.g., a very high exposure to a carcinogen over a short period of time resulting in a 1×10^{-5} cancer risk). Thus, consideration should be given for very short

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term projects to using a lower cancer risk trigger for permitting decisions.¹⁴⁷

Further, the CAPCOA guidance document *Health Risk Assessments for Proposed Land Use Projects* does not exempt construction activities:

This guidance does not include how risk assessments for construction projects should be addressed in CEQA. As this is intended to be a “living document”, the risks near construction projects are expected to be included at a later time as the toxic emissions from construction activities are better quantified. State risk assessment policy is likely to change to reflect current science, and therefore this document will need modification as this occurs.¹⁴⁸

Elsewhere, this guidance document discusses categorically exempt projects which nonetheless require health risk assessment evaluation:

Although methodology for assessing health risk for construction projects is not included in this document, lead agencies under CEQA are required to identify health risk from construction activities or projects and mitigate if they are deemed significant.¹⁴⁹

Accordingly, the DEIR’s categorical dismissal of the requirements for an analysis of air quality impacts to adjacent residents during project construction violates applicable guidance documents and is not supported by substantial evidence.¹⁵⁰ The DEIR must be revised to include a proper health risk assessment for toxic air emissions during Project construction. This assessment should include metals emissions from the concrete batch plant, in addition to the DPM emissions from Project construction activities.¹⁵¹

¹⁴⁷ OEHHA, Air Toxics Hot Spots Program, Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments, February 2015, pp. 8-17 and 8-18 (*emphasis added*); http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf.

¹⁴⁸ CAPCOA, Health Risk Assessments for Proposed Land Use Projects, July 2009, p. 2; http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf.

¹⁴⁹ *Id.*, p. 7.

¹⁵⁰ Pless Comments.

¹⁵¹ Pless Comments.

7. The DEIR Fails to Adequately Mitigate Particulate Matter Emissions

Dust is an enormous problem in the area where the Project would be constructed. The combination of prolonged drought and multiple large scale solar and wind development projects in the arid desert environments has led to severe dust storms in the Project area. A dust storm in Antelope Valley on April 8, 2013, was so severe that it resulted in multiple car pileups in the sparsely populated region, as well as closure of the Antelope Valley Freeway.¹⁵² During the 2014 March through May windy season, fugitive dust in the Western Antelope Valley negatively impacted air quality to an extent never experienced before and was likened to the Great Dust Bowl of the 1930's.¹⁵³

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The increased severity in dust storms has been linked to both the historic drought of the past four years and the ongoing development of large scale solar and wind power facilities on this desert land.¹⁵⁴ For instance, despite implementing similar dust mitigation measures as proposed here, construction of First Solar's Antelope Valley Solar Ranch One ("AVSR1"), a solar development in Kern County, was officially halted in April 2013, due to the company's inability to bring the facility in compliance with ambient air quality standards for dust.¹⁵⁵ The company was issued four violations by the Antelope Valley Air Quality Management District

¹⁵² Herman K. Trabish, GreenTech Media, Construction Halted at First Solar's 230 MW Antelope Valley Site, April 22, 2013, available at: <http://www.greentechmedia.com/articles/read/Construction-Halted-At-First-Solars-230-MW-Antelope-Valley-Site>.

¹⁵³ Peter McRae, The Mojave Dust Bowl of 2014 – Causes and Solutions, Quattro Environmental (2014), available at: <http://www.quattroenvironmental.com/the-mojave-dust-bowl-of-2014-causes-and-solutions/>.

¹⁵⁴ Peter McRae, The Mojave Dust Bowl of 2014 – Causes and Solutions, Quattro Environmental (2014) [(solar farms and power corridors "have undoubtedly contributed to dust emanating from large tracts of disturbed lands during construction activities")], available at: <http://www.quattroenvironmental.com/the-mojave-dust-bowl-of-2014-causes-and-solutions/>.

¹⁵⁵ Herman K. Trabish, GreenTech Media, Construction Halted at First Solar's 230 MW Antelope Valley Site, April 22, 2013, available at: <http://www.greentechmedia.com/articles/read/Construction-Halted-At-First-Solars-230-MW-Antelope-Valley-Site>.

("AVAQMD").¹⁵⁶ Dust from the project, in general, has led to complaints of respiratory distress by local residents.¹⁵⁷



Severe dust storm blowing off the Ivanpah Solar Electric Generating System construction site February 23, 2013 (from: Chris Clarke, KCET, Dust Problem at Ivanpah Solar February 27; <http://www.kcet.org/news/define/rewire/solar/concentrating-solar/dust-problem-at-ivanpah-solar.html>)

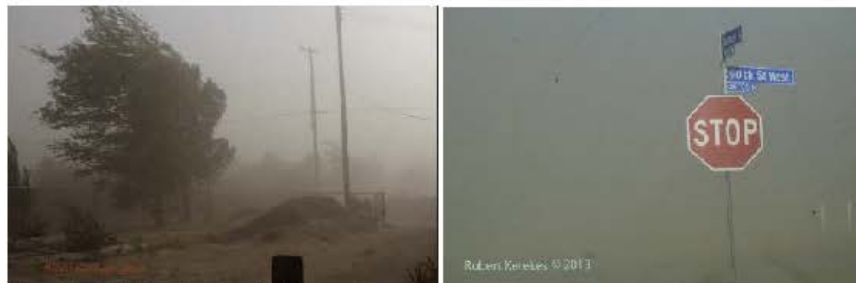
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¹⁵⁶ Herman K. Trabish, GreenTech Media, Construction Halted at First Solar's 230 MW Antelope Valley Site, April 22, 2013, available at: <http://www.greentechmedia.com/articles/read/Construction-Halted-At-First-Solars-230-MW-Antelope-Valley-Site>.

¹⁵⁷ Herman K. Trabish, GreenTech Media, Construction Halted at First Solar's 230 MW Antelope Valley Site, April 22, 2013, available at: <http://www.greentechmedia.com/articles/read/Construction-Halted-At-First-Solars-230-MW-Antelope-Valley-Site>.



(from: Herman K. Trabish, GreenTechMedia, Construction Halted at First Solar's 230 MW Antelope Valley Site, April 22, 2013; <http://www.greentechmedia.com/articles/read/Construction-Halted-At-First-Solar-230-MW-Antelope-Valley-Site>)



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The DEIR finds that cumulative dust impacts from multiple concurrent construction projects in the area will be significant and unavoidable, but fails to adequately set forth the magnitude of the problem. Moreover, it improperly relies on voluntary, unenforceable, or vague mitigation measures to reduce these impacts. Instead of requiring compliance with all of the identified measures, the DEIR instead often only directs the County to “promote,” “encourage,” “support,” or “investigate” implementation of the measure. In other cases, compliance with the mitigation measure is only required “where feasible” or “where appropriate,” without providing any criteria for the circumstances under which a measure will be considered “feasible” or “appropriate.”

For example, Mitigation Measure MM 4.3-1 refers to the “SSDCP” who “shall identify, in addition to those measures required by the air district, all measures being undertaken during construction activities and operational activities to ensure fugitive dust being blown off site is minimized.”¹⁵⁸ This measure is incorrectly and poorly worded. *First*, presumably the mitigation measure intends to refer to the EKAPCD rather than the SSDCP. *Second* the phrasing of this measures should be changed from “being undertaken” to “to be undertaken” to ensure that the proposed measures will be, in fact, implemented.

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Further, the DEIR proposes Mitigation Measures MM 4.3-3 and 4.3-4 to reduce particulate matter from exhaust emissions during Project construction. While at first glance these measures appear exhaustive and comprehensive, a closer review shows that they would do very little to reduce exhaust emissions and even permit higher exhaust emissions than determined by the DEIR. Specifically, for quantification of mitigated emissions, the DEIR’s air quality assessment already assumes the use of Tier 3 diesel engines for off-road equipment greater than 50 horsepower.¹⁵⁹ Yet, Mitigation Measure 4.3-3(j) as proposed by the DEIR requires only certification to Tier 2 rather than Tier 3 for off-road equipment over 50 horsepower.¹⁶⁰ Thus, the proposed mitigation does not ensure that construction equipment exhaust emissions do not exceed emission estimates.¹⁶¹

¹⁵⁸ DEIR at p. 4.3-33.

¹⁵⁹ Pless Comments; DEIR at Table 4.3-6 and DEIR, Appendix E.

¹⁶⁰ DEIR at p. 4.3-35.

¹⁶¹ Pless Comments.

Also, as written, Mitigation Measure MM 4.3-5, which establishes the requirements for and the responsibilities of a “construction coordinator,” is entirely reactive only requiring investigation and remedy in response to local complaints about construction activities. The measure should be revised to require an on-site construction mitigation manager who oversees and enforces implementation of all specified mitigation measures to proactively ensure that construction activities do not result in complaints.¹⁶²

The DEIR’s reliance on voluntary, unenforceable, or vague mitigation measures to support its findings violates CEQA. CEQA requires that public agencies adopt “feasible” mitigation measures that must “actually be implemented.”¹⁶³ “When the success of mitigation is uncertain, an agency cannot reasonably determine that significant effects will not occur.”¹⁶⁴ Nonbinding measures cannot be relied upon to mitigate potential impacts.¹⁶⁵ Mitigation measures that are vague or so undefined that it is impossible to evaluate their effectiveness are also legally inadequate.¹⁶⁶ Without substantial evidence that these measures will be implemented, the DEIR’s reliance on these measures to support its conclusions is speculative and without evidentiary support.

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The California Attorney General commented on the Tulare County General Plan EIR regarding the enforceability of mitigation:

CEQA provides that a public agency should not approve a project as proposed if there are feasible mitigation measures that would substantially lessen the significant environmental effects of the project. Further, in order to ensure that mitigation measures are actually implemented, they must be “fully enforceable through permit conditions, agreements, or other measures... The General Plan relies on unenforceable policies that “encourage,” but do not mandate that

¹⁶² Pless Comments.

¹⁶³ *Federation of Hillside and Canyon Associations v. City of Los Angeles*, *supra*, 83 Cal.App.4th at 1261; see Pub. Resources Code § 21002.1, subd. (b).

¹⁶⁴ Remy, Thomas, Moose and Manley, Guide to the California Environmental Quality Act (Solano Press, 2007) at p. 426; see *Sundstrom v. County of Mendocino* (1988) 22 Cal.App.3d 296, 306-308.

¹⁶⁵ *Napa Citizens for Honest Government v. Napa County Board of Supervisors* (2001) 91 Cal.App.4th 342, 385.

¹⁶⁶ See *San Franciscans for Reasonable Growth v. City & County of San Francisco* (1984) 151 Cal.App.3d 61, 79.

growth will occur in certain areas, with the result that all important development decisions are left to the marketplace.¹⁶⁷

In comments on the Santa Clarita Valley Area Plan, the California Attorney General elaborated:

When an EIR makes a finding of significant environmental harm from a project, as it does here, CEQA requires the public agency carrying out the project to adopt all feasible mitigation measures to lessen that harm, or to adopt a feasible alternative that will do less environmental damage. (Pub. Resources Code, §§ 21002, 21081 and 21081.5.) If the public agency rejects a mitigation measure or alternative as infeasible, the agency must make specific findings, supported by substantial evidence, that a mitigation measure or alternative is not feasible. (Pub. Resources Code, §§ 21081 and 21081.5.) Here, the RDEIR [Recirculated DEIR] does not provide substantial evidence that all feasible mitigation has been proposed. For example, the RDEIR relies on a number of measures and policies that it states will reduce air pollution, including air pollution from cars and trucks, resulting from the [One Valley, One Vision] Plan. However, most of the measures and policies identified are unenforceable or vague, directing the County only to “promote,” “encourage,” “support,” or “investigate” various methods to reduce driving, or committing the County to use the measures only “where feasible” or “where appropriate,” without providing any criteria for the circumstances under which a measure will be considered “feasible” or “appropriate.” It is not clear, and the RDEIR does not specify, whether a measure is being rejected on the basis of technical or economic infeasibility, or both.

Similarly, many measures require only that the County “work with” agencies that do or may provide transit options, or to “seek” funding or other assistance to provide transportation options. While many of the listed measures appear well intentioned and might be effective if carried out, the RDEIR provides no substantial evidence – often no

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¹⁶⁷ Susan Fiering, Deputy Attorney General for Edmund Brown, Attorney General, Re: Tulare County General Plan and Recirculated Draft Environmental Impact, May 27, 2010; http://oag.ca.gov/sites/all/files/agweb/pdfs/environment/comments_Tulare_County_GP_DEIR.pdf.

evidence at all – that they will be implemented or, if implemented, whether they will be effective at reducing vehicle miles traveled. The RDEIR also fails to provide substantial evidence that it is infeasible to make these non-enforceable measures binding and enforceable.

Faced with the conclusion that the serious public health threat from air pollution in the Valley will be exacerbated under the OVOV Plan, and with the finding that the mitigation proposed will not reduce impacts to insignificant levels, the County is obliged under CEQA to adopt additional measures that are enforceable or, alternatively, to provide substantial evidence that additional measures are infeasible. The RDEIR does neither.¹⁶⁸

The same criticism applies to the DEIR at hand.

The ongoing drought conditions and the scope of the County's dust problems make it even more critical to ensure that all feasible particulate emission mitigation measures are actually implemented and enforced. The particulate emission mitigation measures set forth in the DEIR must be revised to ensure that all of them are mandatory and enforceable.

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8. The DEIR Must Be Revised to Evaluate and Mitigate Particulate Matter Impacts from the Concrete Batch Plant

As discussed, *supra*, the DEIR's air quality analysis failed to account for the changed Project description adding the concrete batch plant. The DEIR must be revised to evaluate and mitigate dust impacts from the proposed onsite concrete batch plant. Dr. Pless recommends incorporating the following feasible mitigation measures to reduce emissions from the concrete batch plant during Project construction:¹⁶⁹

- Keep sand and aggregates damp.
- Cover or enclose conveyor belts and hoppers.

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¹⁶⁸ Kamala D. Harris, Letter to Mitch Glaser, County of Los Angeles, March 17, 2011 (internal citations omitted); http://oag.ca.gov/sites/all/files/agweb/pdfs/environment/santa_clarita_letter.pdf.

¹⁶⁹ Pless Comments.

- Keep pavements and surfaces clean.
- Fit cement silos with high level alarms, multi-bag pulse jet filters, airtight inspection hatches and automatic cutoff switches on the filler lines.
- Keep duct work airtight.
- Enclose the loading bay.
- Develop and implement an inspection regime for all dust control components.
- Clean up spills immediately.

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D. The DEIR Fails to Adequately Disclose, Evaluate or Mitigate Valley Fever Impacts

1. The DEIR Fails to Adequately Describe the Scope of Valley Fever Impacts

The DEIR's finding that Project construction activities may increase the risk to "nearby" sensitive receptors of contracting Valley Fever is legally inadequate because this finding fails to disclose that the potentially exposed population is much larger than just "nearby" sensitive receptors. Due to their small size, Valley Fever spores have been documented to travel hundreds of miles from their place of origin during windstorms.¹⁷⁰ Accordingly, the potentially exposed population includes all immediately surrounding communities and beyond, including the over 18,000 residents of Rosamond located within a few miles of the Project, the over 300,000 residents of the Palmdale / Lancaster urban area located within approximately 30 miles of the Project site, and the more than 10,000 employees of Edward Air Force Base located approximately 20 miles from the Project site.¹⁷¹

5-U

¹⁷⁰ Demosthenes Pappagianis and Hans Einstein, Tempest From Tehachapi Takes Toll or Coccidioides Conveyed Aloft and Afar, *West J Med*, v.129 (Dec. 1978), pp. 527-30, available at: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1238466/pdf/westmed00256-0079.pdf>; see also Lawrence L. Schmelzer and R. Tabershaw, Exposure Factors in Occupational Coccidioidomycosis, *Am. J. Public Health Nations Health*, v. 58, no. 1, 1968, p. 110, available at: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1228046/?page=1>; David Filip and Sharon Filip, Valley Fever Epidemic, Golden Phoenix Books, 2008, p. 24.

¹⁷¹ Greater Antelope Valley Economic Alliance, 2014 Economic Report at pp. 1-3, <http://socalleadingedge.org/wp-content/uploads/2014/12/2014gaveareport.pdf>

CEQA requires disclosure of the scope and severity of a project's environmental impacts where such information is necessary to allow decisionmakers and the public to understand the environmental consequences of the project.¹⁷² By failing to accurately disclose the scope of the exposure risk, the DEIR fails to inform members of the public who are not nearby residents of their risk to Valley Fever exposure from Project activities.¹⁷³ The DEIR must be amended to address this error.

The DEIR is also deficient because it fails to disclose that current drought conditions¹⁷⁴ have greatly exacerbated the risk that Project construction activities will expose the public to Valley Fever.¹⁷⁵ During drought years, the number of organisms competing with *Coccidioides ssp.* decreases and the fungus remains alive, but dormant. When rain finally occurs, the arthroconidia germinate and multiply more than usual because of a decreased number of other competing organisms. When the soil dries out in the summer and fall, soil disturbances can easily release the spores into the air where they can be inhaled, leading to infections.¹⁷⁶ Furthermore, as a result of this drought, solar power plant construction projects in this region have been unable to successfully minimize dust impacts, leading to severe dust storms, complaints of respiratory distress by local residents, and even the temporary shutdown of one solar development.¹⁷⁷ These drought-related impacts dramatically increase the risk of Valley Fever from Project construction.

5-U

¹⁷² See *Berkeley Keep Jets Over the Bay Committee v. Bd. of Port Commissioners*. (2001) 91 Cal.App.4th 1344, 1382; see also *Cadiz Land Co. v. Rail Cycle* (2000) 83 Cal.App.4th 74, 93-94.

¹⁷³ Pless Comments.

¹⁷⁴ State of California, Office of Governor Edmund G. Brown, Governor Brown Declares Drought State of Emergency, January 17, 2014, available at: <http://gov.ca.gov/news.php?id=18368>.

¹⁷⁵ Gosia Wozniacka, Associated Press, Fever Hits Thousands in Parched West Farm Region, May 5, 2013, citing Prof. John Galgiani, Director of the Valley Fever Center for Excellence at the University of Arizona, available at: <http://usa.news.net/article/272191/Top+Stories&>.

¹⁷⁶ Theodore N. Kirkland and Joshua Fierer, Coccidioidomycosis: A Reemerging Infectious Disease, *Emerging Infectious Diseases*, Vol. 3, No. 2, July-September 1996, available at: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2626789/pdf/8903229.pdf>.

¹⁷⁷ Herman K. Trabish, GreenTech Media, Construction Halted at First Solar's 230 MW Antelope Valley Site, April 22, 2013, available at: <http://www.greentechmedia.com/articles/read/Construction-Halted-At-First-Solars-230-MW-Antelope-Valley-Site>; Peter McRae, The Mojave Dust Bowl of 2014 – Causes and Solutions, Quattro Environmental (2014) [(solar farms and power corridors "have undoubtedly contributed to dust emanating from large tracts of disturbed lands during construction activities"), available at: <http://www.quattroenvironmental.com/the-mojave-dust-bowl-of-2014-causes-and-solutions/>].

This is not an academic concern. As a result of the combination of historic drought and increased large-scale construction activities on desert land, the number of Valley Fever cases has significantly increased both in workers and the general public.¹⁷⁸ Health officials are calling the rise in instances of Valley Fever contraction an epidemic.¹⁷⁹ At two photovoltaic solar energy projects in San Luis Obispo County, Topaz Solar Farm and California Valley Solar Ranch, 28 construction workers contracted Valley Fever.¹⁸⁰

5-U

By failing to disclose the heightened risk that current drought conditions combined with large scale desert construction projects have created and the dramatic increase in recent cases of Valley Fever, the DEIR fails to adequately inform the public of the scope of risks posed by Project construction.

2. The DEIR Lacks Substantial Evidence to Support Its Conclusion that the Project's Valley Fever Impacts Will Be Less than Significant after Mitigation

a. The DEIR Improperly Bases its Conclusion on Deferred, Voluntary and Unenforceable Mitigation Measures

5-V

The DEIR finds that exposure to Valley Fever is a potentially significant impact of Project construction activities, but concludes that this impact will be reduced below a level of significance with the implementation of the dust control measures set forth in MM 4.3-1 and the Valley Fever Training and Valley Fever Dust Management Plan set forth in MM 4.3-6.

¹⁷⁸ Herman K. Trabish, GreenTech Media, Construction Halted at First Solar's 230 MW Antelope Valley Site, April 22, 2013, available at: <http://www.greentechmedia.com/articles/read/Construction-Halted-At-First-Solars-230-MW-Antelope-Valley-Site>; See Center for Disease Control; Fungal Pneumonia: A Silent Epidemic, Coccidioidomycosis (Valley Fever), available at: <http://www.cdc.gov/fungal/pdf/cocci-fact-sheet-sw-us-508c.pdf>.

¹⁷⁹ Mark Koba, CNBC, *The Silent Epidemic Known as Valley Fever* (Monday, January 27, 2014 at 1:33 p.m.), available at: <http://www.cnbc.com/id/101362762>; See Center for Disease Control; Fungal Pneumonia: A Silent Epidemic, Coccidioidomycosis (Valley Fever), available at: <http://www.cdc.gov/fungal/pdf/cocci-fact-sheet-sw-us-508c.pdf>.

¹⁸⁰ Julie Cart, Los Angeles Times, 28 Solar Workers Sickened by Valley Fever in San Luis Obispo County May 01, 2013; available at <http://articles.latimes.com/2013/may/01/local/la-me-ln-valley-fever-solar-sites-20130501>.

The conclusion that these mitigation measures will reduce impacts below a level of significance is not supported by substantial evidence. As discussed *supra*, the dust control measures set forth in MM 4.3-1 are inherently inadequate and thus cannot be relied upon to ensure that workers and the general public will not be exposed to dust containing Valley Fever spores. Moreover, the dust mitigation measures are designed to prevent exposure to harmful levels of particulate matter, not to eliminate dust altogether. Nearby residents may still be exposed to Valley Fever spores even when dust is at levels below significance for particulate matter. Valley Fever spores, whose size is well below the limits of human vision, may be present in air that appears relatively clear and dust free.¹⁸¹

The Valley Fever-specific mitigation measures set forth in MM 4.3-6 are also inherently inadequate because they include deferred, voluntary and unenforceable mitigation measures. The only mandatory measures identified in MM 4.3-6 are training on Valley Fever awareness, a demonstration on how to use protective equipment, the implementation of a program to make respirators available *upon request* by the employee, and the deferred development of a Valley Fever Dust Management Plan.

The deferral of the formulation of mitigation measures to post-approval studies is generally impermissible.¹⁸² Project modifications necessary to avoid significant impacts must be made *before* the lead agency issues a proposed EIR for public review.¹⁸³ Mitigation measures adopted *after* project approval cannot validate the issuance of an EIR, since this deferral denies the public the opportunity to comment on the project as modified to mitigate impacts.¹⁸⁴ An agency may only defer the formulation of mitigation measures when it “recognizes the significance of the potential environmental effect, commits itself to mitigating its impact, and articulates *specific performance criteria* for the future mitigation.”¹⁸⁵

5-V

¹⁸¹ Frederick S. Fisher, et al, Operational Guidelines (version 1.0) for Geological Fieldwork in Areas Endemic for Coccidioidomycosis (Valley Fever), U.S. Geological Survey Open-File Report 00-348 (2000) at p. 9, available at http://esp.cr.usgs.gov/projects/sw/pubs/task4/Fisher_et_al_2000.pdf.

¹⁸² *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 308-309.

¹⁸³ Pub. Resources Code § 21061.

¹⁸⁴ *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1393; *Quail Botanical Gardens Foundation v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1604, fn. 5.

¹⁸⁵ *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1411 (emphasis provided).

Here, specification of mitigation measures are deferred until a Valley Fever Dust Management Plan is developed *after Project approval*. While MM 4.3-6 sets forth a number of specific mitigation measures (Measures i – x.) that *may* be included in the Plan, none of these measures are actually required. In addition to making clear that the Valley Fever Dust Management Plan is not required to include Measures i – x, MM 4.3-6 also states that any measures that do end up making it into the plan only need to “*be implemented as practicable*.” Furthermore, no specific performance standards are set forth for the Valley Fever Dust Management Plan. MM 4.3-6 only requires the plan to “minimize” personnel and public exposure to Valley Fever-containing dust. It does not require reducing such exposures below any identifiable level of significance.

The reliance on the future development of a Plan that may or may not include the listed measures and which will only be implemented “as practicable” violates CEQA’s general prohibition against deferred mitigation and CEQA’s requirement that mitigation measures be specific and enforceable. Because the DEIR relies on deferred, illusory, vague and unenforceable mitigation measures, its finding that these measures will reduce Valley Fever Impacts below a level of significance violates CEQA and is not supported by substantial evidence.

5-V

The inadequacy of this deferred analysis is underscored by the failure of MM 4.3-6 to require the use of respirator equipment by construction workers who are likely to be exposed to dust from earth moving activities. While the MM 4.3-6 states that such a requirement may be considered in the Valley Fever Dust Management plan, if “practicable,” it contradicts this elsewhere when it explicitly states that respiratory equipment “is not mandatory during work” but shall be instead provided to employees only upon request.

The failure to require the use of protective respiratory equipment directly conflicts with the Valley Fever prevention recommendations set forth by the California Department of Public Health and the California Department of Industrial Relations and in recommendations developed by the U.S. Geological Survey. These agencies all recommend that respirators be *provided* to employees digging or working near earth-moving trucks or equipment, not just made available. Mandatory respiratory protection measures are essential to protect construction workers at projects that involve excavation or grading of land contaminated with

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Valley Fever spores.¹⁸⁶ One study reported, “generally 50% of the individuals who were exposed to the dust or were excavating dirt at the [Valley-Fever-contaminated] sites were infected.”¹⁸⁷

5-V

Because the DEIR fails to explain how Valley Fever risks will be reduced below a level of significance if respirators are only provided upon request, it lacks substantial evidence for its conclusion that this will reduce Valley Fever impacts below a level of significance.

b. The DEIR Conclusion that the Project's Valley Fever Impacts Will Be Less Than Significant After Mitigation Is Not Supported By Any Analysis or Substantial Evidence

Even if Measures i through x in MM 4.3-6 were determined to be “practicable” and included in the Valley Fever Dust Management Plan, the DEIR’s conclusion that the Project’s Valley Fever impacts will be less than significant after mitigation is not supported by any analysis or substantial evidence. CEQA requires conclusions in an EIR to be supported by substantial evidence.¹⁸⁸ Conclusory statements “unsupported by empirical or experimental data, scientific authorities, or explanatory information of any kind” are insufficient to support a finding of insignificance.¹⁸⁹

5-W

For example, the DEIR fails to provide any evidence that the half-face respirators with N-100 or P-100 filters that will be required to be available are sufficient to reduce impacts below a level of significance, even if they were required.

¹⁸⁶ Rafael Laniado-Laborin, Expanding Understanding of Epidemiology of Coccidioidomycosis in the Western Hemisphere, Ann. N.Y. Acad. Sci., v. 111, 2007, pp. 20-22; Frederick S. Fisher, Mark W. Bultman, Suzanne M. Johnson, Demosthenes Pappagianis, and Erik Zaborsky, Coccidioides Niches and Habitat Parameters in the Southwestern United States, a Matter of Scale, Ann. N.Y. Acad. Sci., No. 1111, 2007, pp. 47-72 (“All of the examined soil locations are noteworthy as generally 50% of the individuals who were exposed to the dust or were excavating dirt at the sites were infected.”), available at: http://esp.cr.usgs.gov/projects/sw/pubs/task4/Fisher_et_al_2007.pdf.

¹⁸⁷ Frederick S. Fisher, Mark W. Bultman, Suzanne M. Johnson, Demosthenes Pappagianis, and Erik Zaborsky, Coccidioides Niches and Habitat Parameters in the Southwestern United States, a Matter of Scale, Ann. N.Y. Acad. Sci., No. 1111, 2007, p. 47, available at: http://esp.cr.usgs.gov/projects/sw/pubs/task4/Fisher_et_al_2007.pdf.

¹⁸⁸ Pub. Resources Code § 21081.5; CEQA Guidelines § 15091, subd. (b).

¹⁸⁹ *People v. County of Kern* (1974) 39 Cal.App.3d 830, 841-842.

To the contrary, the California Department of Public Health and the California Department of Industrial Relations have found that Fit-tested half-mask respirators are expected to reduce exposure by only 90% and conclude that the use of these respirators can still “result in an unacceptable risk of infection when digging where Valley Fever spores are present.”¹⁹⁰

5-W

An EIR must provide the reader with the analytic bridge between its ultimate findings and the facts in the record.¹⁹¹ Here, the DEIR fails to describe the “analytic route” it traveled in determining that the mitigation measures required would reduce Valley Fever risk to a level of insignificance.¹⁹² The DEIR’s conclusion that the Project’s Valley Fever impacts will be less than significant after mitigation is conclusory and fails to meet the requirements of CEQA.

c. The Immunity to Valley Fever that Some Long Term Residents May Have Developed Does Not Mitigate the Impacts to Residents Who Do Not Have this Immunity

In addition to relying on the implementation of Mitigation Measure MM 4.3-6, the DEIR also bases its conclusion that impacts would be reduced to less than significant levels on “the knowledge that long-term residents have typically already developed immunity to Valley Fever.” This rationale is incorrect for two reasons.

5-X

First, it incorrectly assumes that Valley Fever is less of a risk in areas where residents are more likely to have been exposed to Valley Fever. The idea that areas with higher rates of Valley Fever exposure are at less risk from Valley Fever impacts is nonsensical. To the contrary, Valley Fever is more likely to afflict people who live and work in areas endemic to Valley Fever because they are the people more likely to be exposed to it. Workers engaged in soil-disturbing activities, such as excavation and grading, and residents in the vicinity of such activities are among the greatest at risk for contracting Valley Fever. According to a Medscape article by Dr. Duane Hospenthal, M.D., Ph.D., which provides a comprehensive account of the

¹⁹⁰ California Department of Public Health & California Department of Industrial Relations, Preventing Work-Related Coccidioidomycosis (Valley Fever) (June 2013) at p. 5, available at <http://www.elcosh.org/record/document/3684/d001224.pdf>.

¹⁹¹ *Topanga Association for a Scenic Community v. County of Los Angeles* (1974) 11 Cal.3d 506, 515; see CEQA Guidelines, § 15091.

¹⁹² *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 733.

clinical aspects, etiology and epidemiology of Valley Fever, the risk of Valley Fever infection is increased by a history of residence in, or travel to, an area endemic to Valley Fever.¹⁹³ "Infection occurs in endemic areas and is most commonly acquired in the summer or the late fall during outdoor activities."¹⁹⁴ Furthermore, Valley Fever is considered to be an occupational hazard in endemic regions when work activities involve increased exposure to dust or soil, such as construction work.¹⁹⁵

An article in the *Journal of Occupational and Environmental Medicine* found that "[i]nfection risk is highest in workers engaging in soil-disrupting activities such as construction..."¹⁹⁶ The article refuted the presumption that residents of endemic areas were more likely to have subclinical infections and therefore be immune to reinfection. The article found that outbreaks of Valley Fever included workers that were from endemic areas, demonstrating that local workers were not necessarily immune and remained at risk for being infected.¹⁹⁷

5-X

Second, the immunity of long-term area residents is not relevant to the potential impacts on sensitive receptors that are not long term residents. The immunity of some long term residents does not protect newer residents or children. The communities surrounding the Project site have experienced rapid growth over the past 10 years and are not limited to long term, older residents.¹⁹⁸ Moreover, the Project applicant has not made any commitment to hire local workers or even to pay workers the prevailing local rates. As a result, the workforce on this Project is

¹⁹³ Duane R. Hospenthal, M.D., Ph.D., FACP, FIDSA, FASTMH, Coccidioidomycosis Clinical Presentation, Medscape (Sept. 25, 2014), available at <http://emedicine.medscape.com/article/215978-clinical>.

¹⁹⁴ Duane R. Hospenthal, M.D., Ph.D., FACP, FIDSA, FASTMH, Coccidioidomycosis, Medscape (Sept. 25, 2014), available at <http://emedicine.medscape.com/article/215978-overview>.

¹⁹⁵ Duane R. Hospenthal, M.D., Ph.D., FACP, FIDSA, FASTMH, Coccidioidomycosis Clinical Presentation, Medscape (Sept. 25, 2014), available at <http://emedicine.medscape.com/article/215978-clinical>.

¹⁹⁶ Das R. et al., Occupational Coccidioidomycosis in California, Outbreak Investigation, Respirator Recommendations, and Surveillance Findings, *Journal of Occupational and Environmental Medicine*, Volume 54, No. 5, May 2012, pp. 564-571, available at <http://www.cdph.ca.gov/programs/ohb/Documents/OccCocci.pdf>.

¹⁹⁷ Das R. et al., Occupational Coccidioidomycosis in California, Outbreak Investigation, Respirator Recommendations, and Surveillance Findings, *Journal of Occupational and Environmental Medicine*, Volume 54, No. 5, May 2012, pp. 564-571, available at <http://www.cdph.ca.gov/programs/ohb/Documents/OccCocci.pdf>.

¹⁹⁸ See Greater Antelope Valley Economic Alliance, 2014 Economic Report at pp. 2-4, <http://socalleadingedge.org/wp-content/uploads/2014/12/2014gaveareport.pdf>

likely to consist of cheaper workers from out of the area who do not have any immunity to Valley Fever.

Finally, the recent increase in Valley Fever cases in both workers and the general public also belie the assumption that pre-existing immunities will help reduce impacts below a level of significance.¹⁹⁹

5-X

The DEIR's assumption that widespread immunity in long term, older residents will help reduce Valley Fever impacts below a level of significance is not supported by any evidence.

3. The DEIR Fails to Evaluate Cumulative Valley Fever Impacts

The DEIR violates CEQA by failing to evaluate the cumulative increase in Valley Fever risks from the huge number of solar project developments that are taking place concurrently or sequentially in Kern County. These immense desert construction projects have already resulted in huge dust storms that have affected both Kern County and Los Angeles County and appear linked to the recent dramatic rise in Valley Fever cases.²⁰⁰ The Project will incrementally contribute to

5-Y

¹⁹⁹ Herman K. Trabish, GreenTech Media, Construction Halted at First Solar's 230 MW Antelope Valley Site, April 22, 2013, available at: <http://www.greentechmedia.com/articles/read/Construction-Halted-At-First-Solars-230-MW-Antelope-Valley-Site>; Center for Disease Control; Fungal Pneumonia: A Silent Epidemic, Coccidioidomycosis (Valley Fever), available at: <http://www.cdc.gov/fungal/pdf/cocci-fact-sheet-sw-us-508c.pdf>; Mark Koba, CNBC, *The Silent Epidemic Known as Valley Fever* (Monday, January 27, 2014 at 1:33 p.m.), available at: <http://www.cnbc.com/id/101362762>; Julie Cart, Los Angeles Times, 28 Solar Workers Sickened by Valley Fever in San Luis Obispo County May 01, 2013; available at <http://articles.latimes.com/2013/may/01/local/la-me-ln-valley-fever-solar-sites-20130501>.

²⁰⁰ Peter McRae, The Mojave Dust Bowl of 2014 – Causes and Solutions, Quattro Environmental (2014) [(solar farms and power corridors "have undoubtedly contributed to dust emanating from large tracts of disturbed lands during construction activities")], available at: <http://www.quattroenvironmental.com/the-mojave-dust-bowl-of-2014-causes-and-solutions/>; Herman K. Trabish, GreenTech Media, Construction Halted at First Solar's 230 MW Antelope Valley Site, April 22, 2013, available at: <http://www.greentechmedia.com/articles/read/Construction-Halted-At-First-Solars-230-MW-Antelope-Valley-Site>; Julie Cart, Los Angeles Times, 28 Solar Workers Sickened by Valley Fever in San Luis Obispo County May 01, 2013; available at <http://articles.latimes.com/2013/may/01/local/la-me-ln-valley-fever-solar-sites-20130501>; See Center for Disease Control; Fungal Pneumonia: A Silent Epidemic, Coccidioidomycosis (Valley Fever), available at: <http://www.cdc.gov/fungal/pdf/cocci-fact-sheet-sw-us-508c.pdf>.

the increased risk of contracting Valley Fever. The failure to consider this cumulative impact violates CEQA.

5-Y

4. Additional Mitigation Measures Should Be Required Prior to Project Approval

Because the potential for significant Valley Fever impacts remains even with implementation of the DEIR's mitigation measures, additional mitigation measures are required. First, Measures i through x in MM 4.3-6 must all be mandatory.

In addition to making the above measures mandatory, the additional mitigation measures identified in Dr. Pless's comments should be adopted to further minimize the risk of Project construction activities resulting in increased cases of Valley Fever. These measures are taken from the recommendations of the U.S. Geological Survey, the California Department of Public Health, the California Department of Industrial Relations, the County of San Luis Obispo's Health Department and an occupational study of Valley Fever in California workers, and include the following:²⁰¹

5-Z

- (1) Suspend outdoor construction operations during heavy wind or dust storms;
- (2) Continuously wet soils when digging to keep dust levels down;
- (3) When possible, position workers upwind when digging a trench or performing other soil-disturbing tasks;

²⁰¹ Frederick S. Fisher, et al, Operational Guidelines (version 1.0) for Geological Fieldwork in Areas Endemic for Coccidioidomycosis (Valley Fever), U.S. Geological Survey Open-File Report 00-348 (2000) at p. 11, available at http://esp.cr.usgs.gov/projects/sw/pubs/task4/Fisher_et_al_2000.pdf; California Department of Public Health & California Department of Industrial Relations, Preventing Work-Related Coccidioidomycosis (Valley Fever) (June 2013), available at <http://www.elcosh.org/record/document/3684/d001224.pdf>; San Luis Obispo County Health Agency, Recommendations for Workers to Prevent Infection by Valley Fever in SLO County; <http://www.slocounty.ca.gov/Assets/PH/Epidemiology/Cocci+Recomendations.pdf>; Lawrence L. Schmelzer and R. Tabershaw, Exposure Factors in Occupational Coccidioidomycosis, Am. J. Public Health Nations Health, v. 58, no. 1, 1968, pp. 107-113, available at: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1228046/?page=1>

- (4) Prohibit eating and smoking at the worksite, and provide separate, clean eating areas with hand-washing facilities;
- (5) Limit outdoor construction during the fall to essential jobs only, as the risk of cocci infection is higher during this season;
- (6) Prevent worker transport of Valley Fever spores by (a) thoroughly cleaning equipment, vehicles, and other items before they are moved off-site to other work locations; (b) providing workers with coveralls daily, lockers (or other system for keeping work and street clothing and shoes separate), daily changing and showering facilities; and (c) installing boot-washing;
- (7) Post warnings onsite and consider limiting access to visitors, especially those without adequate training and respiratory protection;
- (8) Pretest soils to determine if each work location is within an endemic area;
- (9) Establish a medical program, including skin tests on all new employees, retesting of susceptibles, and prompt treatment of respiratory illness in susceptibles; periodic medical examination or interview to discover a history of low grade or subclinical infection, including repeated skin testing of susceptible employers;
- (10) Implement aggressive enforcement of respiratory use where exposures from manual digging are involved;
- (11) Test all potential employees for previous infection to identify the immune population and assign immune workers to operations involving known heavy exposures; and
- (12) Hire resident labor whenever available, particularly for heavy dust exposure work.

5-Z

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All of the above health-protective measures are feasible for the Project and must be required in an enhanced dust control plan to reduce the significant risk of construction workers, on-site employees, and the public contracting Valley Fever.²⁰²

5-Z

E. The DEIR Fails to Disclose and Evaluate Potentially Significant Impacts from Soil Contaminated with Hazardous Pesticide Residues

The DEIR is legally inadequate because there is substantial evidence that the Project may contain pesticide contamination that was not disclosed in the DEIR and which may pose a significant risk to construction workers and the public when disturbed by Project construction activities. A revised EIR needs to be prepared for the Project to adequately assess this potential impact and to provide mitigation, if warranted.

As discussed *supra*, historical aerial photographs show agricultural activities on the Project site since 1963. Hazards expert Matt Hagemann testifies that this historic agricultural use indicates the potential presence of soil contamination from organochlorine pesticides.²⁰³ Organochlorine pesticides, such as DDT, DDE, and chlordane, were commonly used throughout California from the 1940s until their ban in the 1972.²⁰⁴ Because these compounds can persist in soil for hundreds of years, agricultural land which is currently being developed or considered for new uses frequently contains DDT.²⁰⁵

5-A2

The U.S. EPA has determined DDT, and its breakdown product DDE, are probable human carcinogens.²⁰⁶ DDT is also known to affect the nervous system.²⁰⁷

²⁰² Pless Comments.

²⁰³ Hagemann Comments.

²⁰⁴ U.S. EPA, DDT – A Brief History and Status.

<http://www.epa.gov/pesticides/factsheets/chemicals/ddt-brief-history-status.htm>; Office of the Science Advisor, DDT in Soil: Guidance for the Assessment of Health Risks to Humans.

<http://www.dtsc.ca.gov/AssessingRisk/upload/chap8.pdf>, p. 11;

²⁰⁵ Hagemann Comments.; Agency for Toxic Substances and Disease Registry, Public Health Statement for DDT, DDE, and DDD <http://www.atsdr.cdc.gov/phs/phs.asp?id=79&tid=20>; Office of the Science Advisor, DDT in Soil: Guidance for the Assessment of Health Risks to Humans.

<http://www.dtsc.ca.gov/AssessingRisk/upload/chap8.pdf>, p. 11.

²⁰⁶ U.S. EPA, DDT. <http://www.epa.gov/pbt/pubs/ddt.htm>; and U.S. EPA, DDE <http://www.epa.gov/ttnatw01/hlthef/dde.html>

Exposure to DDT can result in headaches, nausea, and convulsions,²⁰⁸ as well as damage to the liver and nervous and reproductive system impairments.²⁰⁹ Chlordane has also been classified as a probable human carcinogen by the U.S. EPA and exposure can result in neurological effects such as headaches, irritability, dizziness, and nausea.²¹⁰

Project construction activities would disturb any contaminated soil, exposing construction workers and nearby residents through inhalation of construction dust that has pesticides bound to the soil particles and through dermal absorption when touching excavated contaminated soil.²¹¹ The DEIR describes extensive earth-disturbing site preparation activities that would include use of heavy equipment such as scrapers, paddlewheels, haul vehicles and graders and trenching activities and foundation work for the PV panel support beams.²¹²

The DEIR fails to disclose or evaluate this potential impact. Instead, it misleadingly states that “studies of the project site have found no evidence of pesticide misuse and no recognized environmental conditions.” First, the application of DDT and other hazardous organic pesticides prior to 1972 was not a “misuse” of pesticides. The DEIR’s assumption that pesticides must have been misused in order to have contaminated the Project site is incorrect and unsupported by any substantial evidence. Second, the only study of the Project site was the County’s review of public databases of current and past hazardous contamination sites. The DEIR failed to conduct a Phase I investigation and failed to investigate pre-1972 activities on the Project site to determine if hazardous pesticides may have been applied.²¹³

The DEIR must be revised to disclose and evaluate the potential for Project soil to be contaminated with hazardous pesticide residuals that could pose a health risk to workers and nearby residents when disturbed by Project construction activities. The Project site must be sampled for the presence of pesticides in soil in

5-A2

²⁰⁷ Agency for Toxic Substances and Disease Registry, ToxFAQs, *DDT, DDE, DDD*, <http://www.atsdr.cdc.gov/toxfaqs/tf.asp?id=80&tid=20>

²⁰⁸ U.S. EPA, DDE, <http://www.epa.gov/ttnatw01/hlthef/dde.html>

²⁰⁹ U.S. EPA, DDT, <http://www.epa.gov/pbt/pubs/ddt.htm>

²¹⁰ U.S. EPA, Chlordane, <http://www.epa.gov/ttnatw01/hlthef/chlordan.html>

²¹¹ Hagemann Comments at p. 2.

²¹² DEIR at pp. 3-23, 3-24.

²¹³ Hagemann Comments.

accordance with California Department of Toxics Substances Control guidance.²¹⁴ Sampling results should be compared to human health screening levels (such as Environmental Screening Levels²¹⁵ and California Human Health Screening Levels²¹⁶) and evaluated in the revised DEIR.²¹⁷ If concentrations exceed screening levels, mitigation measures to minimize exposure to construction workers and on-site and nearby residents should be considered, including requiring protective equipment for workers (i.e. respirators), continuous onsite dust monitoring, and fenceline dust monitoring.²¹⁸

5-A2

F. The DEIR's Analysis of Project Water Supply Is Legally Inadequate

1. The Water Supply Assessment Prepared for the Project Fails to Comply with the Requirements of SB 610

Water Code section 10910 requires a city or county that determines a project is subject to CEQA to identify any existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project, and water received in prior years pursuant to those entitlements, rights and contracts. The Water Supply Assessment ("WSA") prepared for this Project identifies the amount of water estimated to have been utilized by certain Project parcels from the years 2005 to 2009, but fails to specify where this water came from and pursuant to what entitlements, rights or contracts that water was supplied.

5-B2

Similarly, the WSA states that water for the Project will be supplied by groundwater wells, but fails to specify the amount of water that the Project is entitled to extract from the wells. The WSA acknowledges that groundwater extraction rights are currently under litigation, and assumes that the likely result of the litigation is the reduction of the Project proponent's groundwater rights by 35%. The WSA, however, fails to identify the baseline groundwater rights under this adjudication and does not calculate the amount of water that a 35% reduction would supply.

²¹⁴ Department of Toxic Substances Control, Interim Guidance for Sampling Agricultural Properties (Third Revision). <http://www.dtsc.ca.gov/Schools/upload/Ag-Guidance-Rev-3-August-7-2008-2.pdf>,

²¹⁵ http://www.waterboards.ca.gov/rwqcb2/water_issues/programs/esl.shtml

²¹⁶ <http://www.oehha.ca.gov/risk/chhsltable.html>

²¹⁷ Hagemann Comments.

²¹⁸ Hagemann Comments.

The DEIR's water supply analysis is also inadequate because it relies on an out of date baseline and fails to take into consideration significant new information regarding California's drought that was not available or applicable during the 2005-2009 baseline years relied upon in the DEIR. Given current drought conditions the DEIR's assumption that groundwater extraction rights will be reduced by just 35% may be substantially out of date. Moreover, the DEIR's assumption that a back up water supply is available from the Antelope Valley-East Kern ("AVEK") is not supported by substantial evidence. AVEK is a wholesaler of State Water Project water for the region. The WSA fails to demonstrate that AVEK has available water to sell to the Project given current long-term drought conditions. Moreover, the WSA fails to identify evidence of any options, contracts or rights to AVEK water.

5-B2

The DEIR is also inadequate because it fails to evaluate normal, single-dry and multiple-dry year scenarios for groundwater availability and overdraft. Where a project relies on groundwater, SB 610 requires a WSA to evaluate normal, single-dry and multiple-dry year scenarios for groundwater availability and overdraft. The WSA completely ignores this requirement and instead evaluates the availability of WSA water to AVEK as set forth in the AVEK Urban Water Management Plan ("UWMP"). The WSA's reliance on the AVEK UWMP is in error. This UWMP is not applicable. The DEIR assumes that the Project will use groundwater, not AVEK water. Moreover, neither the Willow Springs Solar Array Project nor the historical agricultural operations on the Project site were identified or included in the 2010 AVEK UWMP.²¹⁹ Because it fails to evaluate normal, single-dry and multiple-dry year scenarios for groundwater availability and overdraft, the DEIR lacks substantial evidence for its findings regarding water availability and regarding impacts from the Project's use of water.

2. The Water Supply Assessment Fails to Take into Account Water Use from the Proposed Temporary Concrete Batch Plant

5-C2

The DEIR's evaluation of water supply availability and impacts is incomplete and lacks substantial evidence because it fails to account for water used from the proposed temporary concrete batch plant. The on-site manufacture of concrete would require substantial amounts of water. The DEIR only accounts for the

²¹⁹ DEIR, Appendix C, Water Supply Assessment at p. 9.

availability of 900 acre-feet of groundwater for drinking water, soil conditioning, and dust suppression; it does not evaluate water availability for concrete batching.²²⁰ Moreover, there is no evidence that groundwater extraction rights for the Project would be sufficient to provide water for all Project construction needs once the needs of the concrete batch plant are factored.

5-C2

3. The DEIR Fails to Evaluate Water Supply Impacts if the Applicant Sells the Project's Groundwater Rights

The WSA's reliance on historic use of groundwater also is inadequate because the WSA states the applicant may sell these water rights upon construction completion and look instead to import water through AVEK and Antelope Valley Groundwater Basin Management. Under such a scenario, all of its historic water use would be used by other consumers pursuant to the sale of these rights. In such a case, the water used for the Project would have to come from water use above and beyond its current entitlements. The DEIR's assumption that water use will be reduced by this Project is thus incorrect. If the applicant sells its existing water rights, then all of that water will be used by the purchaser, plus more water will have to be found to supply the Project. Given the indication that the applicant intends to sell its water rights, the DEIR must be revised to disclose the Project will not result in a net reduction of water use, and must be revised to evaluate where the water will come from if its groundwater rights are sold, whether that water is likely to be available, and what impacts may occur as a result of this change in water supply.

5-D2

The DEIR must also be revised to disclose how water would be delivered to the site and to evaluate what impacts may be associated with the water delivery. If the applicants are relying entirely on AVEK to supply them with water if they sell their groundwater rights, the WSA fails to demonstrate a likelihood of availability of water from AVEK during dry years, fails to demonstrate any entitlements, contracts or options to buy water from AVEK, and fails to identify an alternative source of likely available water.

²²⁰ DEIR at p. 3-24.

G. The DEIR's Evaluation of Biological Impacts Is Legally Inadequate

1. The DEIR Lacks Substantial Evidence for Its Conclusion that Direct Impacts to Swainson's Hawk Will Be Mitigated Below a Level of Significance and Fails to Follow Department of Fish & Game Mitigation Protocol

The DEIR is deficient because it lacks substantial evidence for its conclusion that direct impacts to Swainson's hawks will be mitigated below a level of significance and fails to follow Department of Fish & Game mitigation protocol.

The DEIR finds that Project construction may have a significant direct impact on Swainson's hawks, but that this impact will be reduced to a less than significant level through mitigation measures requiring preconstruction clearance surveys and other minimization measures as described in Mitigation Measures MM 4.4-2 through MM 4.4-4 and MM 4.4-9 through MM 4.4-11, and 4.4-36. The DEIR's conclusion that the Project's impact on Swainson's hawks will be less than significant after mitigation is not supported by the Biological Resources Technical Reports prepared for the DEIR by its biology consultants, nor by any other analysis or substantial evidence.²²¹ CEQA requires conclusions in an EIR to be supported by substantial evidence.²²² Conclusory statements "unsupported by empirical or experimental data, scientific authorities, or explanatory information of any kind" are insufficient to support a finding of insignificance.²²³ Moreover, an EIR must provide the reader with the analytic bridge between its ultimate findings and the facts in the record.²²⁴ Here, the DEIR fails to describe the "analytic route" it traveled in determining that the mitigation measures required would reduce Swainson's hawk impacts to a level of insignificance. The DEIR's conclusion that the Project's impacts on Swainson's hawk will be less than significant after mitigation is conclusory and fails to meet the requirements of CEQA.

5-E2

²²¹ Smallwood Comments.

²²² Pub. Resources Code § 21081.5; CEQA Guidelines § 15091, subd. (b).

²²³ *People v. County of Kern* (1974) 39 Cal.App.3d 830, 841-842.

²²⁴ *Topanga Association for a Scenic Community v. County of Los Angeles* (1974) 11 Cal.3d 506, 515; *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 733; see CEQA Guidelines § 15091.

Furthermore, the DEIR's reliance on Mitigation Measures MM 4.4-2 through MM 4.4-4 and MM 4.4-9 through MM 4.4-11 4.4-36 to reduce Swainson's Hawk impacts below a level of significance is arbitrary and lacks substantial evidence because it fails to include all of the mitigation measures set forth by the California Department of Fish and Game ("CDFG") in the document *Swainson's Hawk Survey Protocols, Impact Avoidance, and Minimization Measures for Renewable Energy Projects in the Antelope Valley of Los Angeles and Kern Counties, California*. While many of the recommended mitigations are included, the DEIR conspicuously fails to include the following recommended mitigation to compensate for the direct and cumulative loss of foraging habitat:²²⁵

Mitigation plans should focus on providing habitat management (HM) lands. Lands which are currently in urban use or lands that have no existing or potential value for foraging Swainson's hawks will not require mitigation nor would they be suitable for mitigation. The plans should call for mitigating loss of Swainson's hawk foraging habitat by providing HM lands within the Antelope Valley Swainson's hawk breeding range at a minimum 2:1 ratio for such habitat impacted within a five-mile radius of active Swainson's hawk nest(s). The Department considers a nest active if it was used one or more times within the last 5 years.

Project developers may consider delegating responsibilities for acquisition and management of the HM lands to the Department or a third party, such as a nongovernmental organization dedicated to Mojave Desert habitat conservation. Seek approval of such delegations from the Department and the appropriate lead agency.

Approaches for acquisition and management of HM lands:

- a. HM Land Selection Criteria. Identify the region within which lands would be acquired, and the type/quality of habitat to be acquired. Foraging habitat should be moderate to good with a capacity to improve in quality and value to Swainson's hawks, and must be within

²²⁵ California Energy Commission and Department of Fish and Game, Swainson's Hawk Survey Protocols, Impact Avoidance, and Minimization Measures for Renewable Energy Projects in the Antelope Valley of Los Angeles and Kern Counties, California (June 2, 2010); Smallwood Comments.

the Antelope Valley Swainson's hawk breeding range. Foraging habitat with suitable nest trees is preferred.

b. Review and Approval of HM Lands Prior to Acquisition. Provide an acquisition proposal to the Department and the appropriate lead agency for their approval at least 3 months before acquiring the property. The proposal should discuss the suitability of the property by comparing it to the selection criteria.

c. Land Acquisition Schedule and Financial Assurances. Complete acquisition of proposed HM lands before initiating ground-disturbing project activities. If an irrevocable letter of credit or other form of security is provided, complete land acquisition within 12 months prior to beginning ground-disturbing project activities. Provide financial assurances for dedicating adequate funding for impact avoidance, minimization and compensation measures required for project approval (see 3. d. below).

d. HM Lands Acquisition. Be prepared to provide a preliminary title report, initial hazardous materials survey report, biological analysis, at a minimum to the Department and the appropriate lead agency. The information will likely also be reviewed by the California Department of General Services, Fish and Game Commission and/or Wildlife Conservation Board.

Fee title or conservation easement will likely be transferred to a Department of Fish and Game-approved non-profit third party and the Department, or solely to the Department. Be prepared to support enhancement and endowment funds for protection and enhancement of acquired lands. The Department will approve establishment and management of the funds, ensuring that qualified non-profit organizations or the Department will manage the funds in an appropriate manner. Contributed funds and any related interest generated from the initial capital endowment would support long-term operation, management, and protection of the approved HM lands, including reasonable administrative overhead, biological monitoring, improvements to carrying capacity, law enforcement measures, and any other action designed to protect or improve the habitat values of

5-E2

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the HM lands. Be prepared to reimburse the Department or other entities for all land acquisition costs.

The DEIR's evaluation of impacts and the sufficiency of mitigation for loss of Swainson's hawk habitat is also deficient because it fails to take into account the critical nature of the Swainson's hawk habitat on the Project site. The Swainson's hawk population in Antelope Valley is considered particularly vulnerable and at risk because its population has been estimated to be just 10 pairs of nesting hawks.²²⁶ According to the biological surveys prepared for the DEIR, up to 12 Swainson's hawks have been observed relying on foraging habitat on or adjacent to the Project site. This represents 60% of the Swainson's hawk population in Antelope Valley.²²⁷ Biologist Shawn Smallwood concludes that the loss of up to 1,400 acres of habitat that has been immediately available to this vulnerable satellite population poses a substantial threat to the continued viability of this species – both individually and in conjunction with the loss of habitat from other large-scale renewable energy projects in the nearby vicinity.²²⁸

5-E2

The DEIR must be revised to include compensatory mitigation for loss of Swainson's hawk habitat and to provide substantial evidence to support its findings.

2. The DEIR Fails to Consider or Recommend Feasible Mitigation to Minimize the Cumulative Impacts of Loss of Habitat for Swainson's hawk, burrowing owl and other special status bird species

The DEIR is inadequate because it fails to consider or recommend feasible mitigation to minimize cumulative impacts arising from the loss of habitat for Swainson's hawk, burrowing owl, and other special status bird species. The DEIR finds that the cumulative loss of habitat for the Swainson's hawk, burrowing owl, and other (unspecified) special status bird species would be a significant and unavoidable impact.²²⁹ The DEIR, however, fails to evaluate or recommend any

5-F2

²²⁶ Smallwood Comments; California Energy Commission and Department of Fish and Game, Swainson's Hawk Survey Protocols, Impact Avoidance, and Minimization Measures for Renewable Energy Projects in the Antelope Valley of Los Angeles and Kern Counties, California (June 2, 2010).

²²⁷ Smallwood Comments.

²²⁸ Smallwood Comments.

²²⁹ DEIR at p. 4.4-55.

mitigation for this loss of foraging habitat. At a minimum, the County should require mitigation for the loss of Swainson's hawk habitat at the minimum 2:1 ratio for habitat impacted within a five mile radius of active Swainson's hawk nests,²³⁰ as required by the CDFG *Swainson's Hawk Survey Protocols, Impact Avoidance, and Minimization Measures for Renewable Energy Projects in the Antelope Valley of Los Angeles and Kern Counties, California*.²³¹ Compensatory mitigation must also be evaluated for cumulative impacts to burrowing owls and other special status bird species that will be affected by the cumulative loss of habitat.²³²

Under CEQA, public agencies cannot approve projects with significant environmental impacts when feasible mitigation measures or alternatives can substantially lessen or avoid such impacts. Consistent with this policy, a legally adequate EIR must identify "[m]itigation measures proposed to minimize the significant effects on the environment." The failure to evaluate and identify feasible mitigation for cumulative impacts arising from the loss of habitat for Swainson's hawk, burrowing owl, and other special status bird species violates CEQA.

5-F2

The analysis of cumulative impacts from the loss of habitat is also legally inadequate because it fails to identify the special status bird species other than Swainson's hawk and burrowing owl that would be impacted by the cumulative loss of habitat. Without specifically identifying the species that would be impacted by the cumulative loss of habitat, the public is not adequately informed of the impact and appropriate mitigation cannot be formulated.

3. The DEIR Improperly Defers Determination of the Amount of Compensatory Mitigation that Will Be Required to Mitigate Burrowing Owl Impacts

The DEIR violates CEQA by improperly deferring the determination of the amount of compensatory mitigation that will be required to mitigate burrowing owl impacts. Consistent with CDFG guidance on burrowing owl mitigation, Mitigation measure MM 4.4-8 requires permanent impacts to nesting, occupied and satellite

5-G2

²³⁰ Here, the entire Project is within a five mile radius of active Swainson's hawk nests. Smallwood Comments.

²³¹ California Energy Commission and Department of Fish and Game, Swainson's Hawk Survey Protocols, Impact Avoidance, and Minimization Measures for Renewable Energy Projects in the Antelope Valley of Los Angeles and Kern Counties, California (June 2, 2010) at p. 8.

²³² Smallwood Comments.

burrows and/or burrowing owl habitat to be mitigated through the permanent conservation of similar habitat to provide for burrowing owl nesting, foraging, wintering, and dispersal comparable to or better than that of the impact area. Mitigation measure MM 4.4-8, however, defers determination of the amount of compensatory mitigation that will be required to an unspecified, future “site-specific analysis.” The *CDFG Staff Report on Burrowing Owl Mitigation* states that a “minimum habitat replacement recommendation is not provided here as it has been shown to serve as a default, replacing any site-specific analysis.”²³³ Accordingly, any mitigation formulated to mitigate burrowing owl impacts from a project must include a site-specific analysis that determines the amount of mitigation habitat that will be required. The DEIR’s deferral of such an analysis to some unspecified future time violates CEQA.

Mitigation measures adopted *after* project approval cannot validate the issuance of an EIR, since this deferral denies the public the opportunity to comment on the project as modified to mitigate impacts.²³⁴ Accordingly, deferral of the formulation of mitigation measures to post-approval studies is generally impermissible.²³⁵ An agency may only defer the formulation of mitigation measures when it “recognizes the significance of the potential environmental effect, commits itself to mitigating its impact, and articulates *specific performance criteria* for the future mitigation.”²³⁶

Here, the DEIR fails to specify the amount of compensatory mitigation that will be required to compensate for Project impacts on burrowing owls, denying the public the opportunity to comment on the Project as modified to mitigate this impact. Furthermore, the DEIR fails to articulate any specific, enforceable performance criteria that it will use to make this determination. The DEIR must be revised to include the required site specific analysis and to disclose the amount of compensatory mitigation that will be required to compensate for Project impacts on burrowing owls based.

5-G2

²³³ California Department of Fish and Game, Staff Report on Burrowing Owl Mitigation (March 7, 2012) at pp. 11-12.

²³⁴ *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1393; *Quail Botanical Gardens Foundation v. City of Encinitas* (1994) 29 Cal.App.4th 1597, 1604, fn. 5.

²³⁵ *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 308-309.

²³⁶ *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359, 1411 (emphasis provided).

4. The DEIR Fails to Adequately Evaluate and Mitigate Avian Collision Risks

Substantial evidence shows that the Project will result in significant, cumulative impacts to birds from collision hazards. In his attached comments, Mr. Smallwood explains the substantial threat that collision hazards pose to birds. Reports of recent bird deaths at solar facilities in California further demonstrate that solar arrays present a collision hazard to birds.²³⁷ As a result, the California Energy Commission requires all recently licensed solar projects to conduct a Bird Monitoring Study to monitor the death and injury of birds from collisions with solar facility features. The DEIR fails to meaningfully evaluate these impacts and lacks substantial evidence to support its findings. The DEIR's evaluation of avian collision impacts must be revised to meaningfully analyze and mitigate the cumulative impact to birds from collision hazards on the Project site.

5-H2

The DEIR also fails to disclose or mitigate for potential impacts associated with Project fencing. The Project site will be surrounded by a seven-foot tall fence with three rows of barbed wire.²³⁸ This type of fencing is known to pose a mortality hazard to sensitive avian species in the Project area.²³⁹ The DEIR must be revised to disclose this potentially significant impact and require "wildlife friendly" fencing at the Project site.

5. The DEIR Fails to Adequately Evaluate Habitat Fragmentation Impacts

Habitat fragmentation is a process that is central to a project's impacts on wildlife movement. It is recognized as one of the most serious threats to the continued existence of terrestrial wildlife, but is often misunderstood and mischaracterized in environmental reviews of residential, commercial, and industrial projects.²⁴⁰ Habitat fragmentation is a *pattern* of habitat loss that results

5-I2

²³⁷ Smallwood Comments; *see also* <http://www.kcet.org/news/rewire/solar/water-birds-turning-up-dead-at-solar-projects-in-desert.html>; <http://www.kcet.org/news/rewire/wildlife/great-blue-herons-die-at-solar-project.html>; <http://www.audublog.org/?p=11179>; <http://www.kcet.org/news/rewire/wildlife/august-was-a-bad-month-for-birds-at-genesis-solar.html>.

²³⁸ DEIR, p. 3-21.

²³⁹ Smallwood Comments.

²⁴⁰ Smallwood Comments.

in a greater numerical reduction of a species' population than would have happened with the same level of habitat loss in another pattern, e.g., a single, contiguous habitat patch. Biologist Shawn Smallwood testifies that, in the Antelope Valley, the Willow Springs Solar Photovoltaic project would contribute to a lengthening east-west corridor of solar projects along the Kern and Los Angeles County line.²⁴¹ With additional solar projects extending northward from the southern aspect of the Antelope Valley, the development of solar projects might completely block north-south and east-west movement of wildlife through the Antelope Valley.²⁴² The pattern of renewable energy development in the Antelope Valley will likely disconnect populations of many species in the region, thereby resulting in suppressed recruitment and gene flow, and a greater numerical reduction of wildlife species than would have happened had all the solar been distributed in a patchwork of properties throughout the Antelope Valley or as one large patch in the middle of the Valley.

The evaluation of the Project's impacts on wildlife movement in the DEIR is inadequate because it fails to address all likely habitat fragmentation impacts. The DEIR states: "*Wildlife movement corridors, also referred to as dispersal corridors or landscape linkages, are generally defined as linear features along which animals can travel from one habitat or resource area to another. A wildlife corridor study was not conducted as part of the proposed project since extensive, long-term studies of species ecology, movement patterns, and dispersal behavior would be required to conclusively demonstrate if a particular site or feature of a site served as an important movement corridor.*"²⁴³ This is incomplete because habitat fragmentation can occur from interference with wildlife movement within an existing habitat, not just interference with established wildlife movement corridors between habitats.²⁴⁴ Kern County's rejection of the possibility of habitat fragmentation impacts based on the lack of any wildlife corridor study is conclusory. The fact that a wildlife corridor study has not been conducted does not mean that no habitat fragmentation impacts will occur. Mr. Smallwood has examined the cumulative obstructions to movement within the habitat area around the Project and determined that the Project will almost certainly significantly interfere with the movement of many species of wildlife, both individually and cumulative in concert with the adjacent multiple

5-12

²⁴¹ Smallwood Comments.

²⁴² Smallwood Comments.

²⁴³ DEIR at p.4.4-18.

²⁴⁴ Smallwood Comments.

other solar projects that collectively form a long barrier to wildlife movement across the Antelope Valley.²⁴⁵

The DEIR's analysis of fragmentation impacts is further inadequate because it improperly assumes that a project cannot interfere with habitat movement if the land being developed was previously used as agricultural land. The DEIR states, *"Desert habitats throughout the Antelope Valley are fragmented by ongoing agricultural operations and development. The proposed project site is not likely to serve as a wildlife corridor due to the agricultural and rural residential uses in the area and the project site is not located within a known movement 'corridor' or 'linkage'. Regional wildlife movement through the site and surrounding area is likely to continue to be fragmented by ongoing agricultural operations within the region."*²⁴⁶ Solar projects have substantially different fragmentation impacts than agricultural land uses. Many species of wildlife use and travel through agricultural landscapes, but would be impeded by solar projects - which do not provide foraging opportunities and usually are fenced.²⁴⁷ Fenced-off solar projects are much more likely to impede the movement of wildlife than are open alfalfa fields. If solar projects are developed as planned in the region, they will extend nearly the entire north-south and east-west lengths of Antelope Valley, thereby cutting off movement of terrestrial wildlife and causing a devastating degree of habitat fragmentation.²⁴⁸

5-12

The DEIR's reliance on the Los Angeles County regional wildlife linkages map is also not relevant. The DEIR states that, *"Los Angeles County has released a draft Regional Wildlife Linkages map as part of its General Plan Update program [citation omitted]. The Los Angeles County Regional Planning Commission recommended approval of the General Plan, including the Regional Wildlife Linkages map, to the Board of Supervisors. The draft map indicates that the project is not within an existing habitat corridor."* This map, however, just shows regional habitat linkages, it does not address habitat movement within the regions.²⁴⁹

Because Kern County's impact assessment focused on established regional movement and habitat corridors, and not on wildlife movement within the region,

²⁴⁵ Smallwood Comments.

²⁴⁶ DEIR, p. 4.4-18.

²⁴⁷ Smallwood Comments.

²⁴⁸ Smallwood Comments.

²⁴⁹ Los Angeles County, Regional Habitat Linkages and Wildlife Corridors, available at http://planning.lacounty.gov/sea/regional_habitat_linkages_and_wildlife_corridors#.

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the analysis was overly narrow and the conclusion overly broad. Replacing current land uses with solar panels and fencing will obviously constrain wildlife movement, and doing so in combination with all the other solar projects that were developed, under development or planned will destroy the capacity of movement in the region for many animal species. The DEIR must be revised to adequately evaluate this impact.

5-12

IV. CONCLUSION

The Project presents significant environmental issues that must be addressed prior to Project approval. The DEIR's Project description fails to include all Project components. The DEIR fails to adequately establish the existing setting upon which to measure impacts. The DEIR also fails to include an adequate analysis of the Project's potentially significant impacts. Finally, the DEIR's conclusions lack substantial evidence as required by CEQA. The DEIR must be revised and recirculated.

5-J2

Sincerely,



Thomas A. Enslow

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Attachments

* Internet links to all other references are provided herein, and a compact disc with referenced documents is provided herewith. Paper copies of these documents will be promptly provided to the County upon request.

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