

Rancho Seco Solar II Project EIR October 2018

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June 25, 2018

Via Electronic Mail and Overnight Delivery

Emily Bacchini Environmental Management Specialist III Sacramento Municipal Utility District Environmental Management 6201 S Street, MS H201 Sacramento, CA 95817 Email: <u>emily.bacchini@smud.org</u>

Re: <u>Comments on the Draft Environmental Impact Report –</u> <u>Rancho Seco Solar II Project</u>

Dear Ms. Bacchini:

On behalf of California Unions for Reliable Energy ("CURE"), we submit these comments on the Rancho Seco Solar II Project ("Project") proposed by Sacramento Municipal Utility District ("SMUD"). The Project proposes to construct and operate a photovoltaic (PV) solar power facility that would provide up to 130 megawatts (MW) of power. The Project site is located on approximately 552.4 acres of SMUD-owned property in southeastern Sacramento County, approximately 12 miles east of State Route (SR) 99, south of Twin Cities Road (also known as SR 104), and adjacent to the decommissioned Rancho Seco Nuclear Generating Station. (Assessor's Parcel Numbers 140-0050-008, 140-0050-009, 140-0050-0011, 140-0050-0010, and 140-0050-0013).

The DEIR states that the Project could require the following discretionary permits and approvals: (1) U.S. Army Corps of Engineers: Compliance with Section 404 of the Clean Water Act for discharge of fill to waters of the U.S; (2) U.S. Environmental Protection Agency: Concurrence with Clean Water Act Section 404 permit; (3) U.S. Fish and Wildlife Service: Compliance with Section 7 of the federal Endangered Species Act; (4) California Department of Fish and Wildlife, Region 2: Compliance with the California Endangered Species Act, potential permits under Section 2081 of the Fish and Game Code if take of listed species is likely to occur, ^{3935-014acp}



and Section 1602 streambed alteration agreement for construction activities that occur within the bed or bank of adjacent waterways; (5) California Department of Transportation, District 3: Encroachment permit and/or transportation management plan; (6) California State Office of Historic Preservation: Compliance with Section 106 of National Historic Preservation Act (in coordination with U.S. Army Corps of Engineers); (7) Central Valley Regional Water Quality Control Board: National Pollutant Discharge Elimination System construction stormwater permit (Notice of Intent to proceed under General Construction Permit) for disturbance of more than 1 acre, discharge permit for stormwater, and Clean Water Act Section 401 water quality certification or waste discharge requirements; (8) Sacramento County: Board Review of the 230-kV interconnection line for consistency with the General Plan; (9) Sacramento Metropolitan Air Quality Management District (SMAQMD): Authority to Construct/Permit to Operate pursuant to SMAQMD Regulation 2 (Rule 201 et seq.), and Air Quality Management Plan consistency determination.

Based upon our review of the DEIR, appendices, and other relevant records, we conclude that the DEIR fails to meet the requirements of CEQA. First, both the project description and the alternative analysis of the DEIR violate CEQA. Second, the DEIR fails to properly disclose, analyze and mitigate the Project's impacts on biological resources, air quality and utilities and service systems. In addition, the Project fails to comply with the requirements for a Clean Water Act Section 404 Permit.

We prepared these comments with the assistance of air quality and hazards experts Hadley Nolan and Matt Hagemann, P.G., C.Hg. of Soil / Water / Air Protection Enterprise ("SWAPE"), and of expert biologist Scott Cashen, M.S. Their technical comments and *curricula vitae* are attached hereto as Exhibits A and B and are fully incorporated herein.

We urge SMUD to reject the DEIR and direct staff to prepare and recirculate a revised Draft EIR that properly discloses, analyzes and mitigates the Project's potentially significant impacts, as required by CEQA. 01-1

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I. STATEMENT OF INTEREST

These comments are submitted on behalf of CURE. CURE is a coalition of labor organizations whose members construct, operate, and maintain powerplants and other industrial facilities throughout California. CURE encourages sustainable development of California's energy and natural resources. Environmental degradation destroys cultural and wildlife areas, consumes limited water resources, causes air and water pollution, and imposes other stresses on the environmental carrying capacity of the State. Environmental degradation also jeopardizes future jobs by making it more difficult and expensive for industry to expand in Sacramento, and by making it less desirable for businesses to locate and for people to live and recreate in the area. Continued environmental degradation can, and has, caused construction moratoriums and other restrictions on growth that, in turn, reduce future employment opportunities for CURE's participating organizations and their members. CURE therefore has a direct interest in enforcing environmental laws and minimizing project impacts that would degrade the environment.

CURE's participating organizations and their members also live, recreate, work, and raise families in Sacramento County. Thus, CURE, its participating organizations and their members stand to be directly affected by the Project's adverse environmental and health impacts. Members may also work on the Project itself, and would therefore be first in line to be exposed to any health and safety hazards that the Project may create.

II. THE DEIR FAILS TO ADEQUATELY DESCRIBE THE PROJECT

The DEIR fails to meet CEQA's requirements because it lacks an accurate, complete, and stable project description, rendering the entire environmental impacts analysis inadequate. California courts have repeatedly held that "an accurate, stable and finite project description is the *sine qua non* of an informative and legally sufficient [CEQA document]."¹ CEQA requires that a project be described with enough particularity that its impacts can be assessed.² Accordingly,

¹ County of Inyo v. City of Los Angeles (3d Dist. 1977) 71 Cal.App.3d 185, 193. ² Id. at p. 192. ^{3933-014acp}



a lead agency may not hide behind its failure to obtain a complete and accurate Project description.³

It is impossible for the public to make informed comments on a project of unknown or ever-changing description. California courts have held that "a curtailed or distorted project description may stultify the objectives of the reporting process."⁴ Furthermore, "only through an accurate view of the project may affected outsiders and public decision-makers balance the proposal's benefit against its environmental cost..."⁵ As articulated by the court in *County of Inyo v. City of Los Angeles*, "a curtailed, enigmatic or unstable project description draws a red herring across the path of public input."⁶ Without a complete project description, the environmental analysis under CEQA is impermissibly limited, thus minimizing the project's impacts and undermining meaningful public review.⁷

An accurate and complete project description is necessary to perform an adequate evaluation of the potential environmental effects of a proposed project. In contrast, an inaccurate or incomplete project description renders the analysis of environmental impacts inherently unreliable. Without a complete project description, the environmental analysis under CEQA will be impermissibly narrow, thus minimizing the project's impacts and undercutting public review.⁸

A. The DEIR Fails to Adequately Describe Project Components

CEQA mandates that lead agencies include the "whole of an action" that is being approved in the environmental review document's project description, including *all* components and future activities that are reasonably anticipated to become part of the project.⁹ An accurate and detailed enough project description is crucial to enable the public to truly understand and meaningfully comment on the project's potential impacts.

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⁹ See Sundstrom v. County of Mendocino (1988) 202 Cal.App.3d 296, 311.

⁴ County of Inyo v. City of Los Angeles (3d Dist. 1977) 71 Cal.App.3d 185, 192.

⁵ Id. at p. 192-193.

⁶ Id. at p. 198.

See, e.g., Laurel Heights Improvement Assn. v. Regents of the Univ. of Cal. (1988) 47 Cal.3d 376.
 See, e.g. id.

⁹ 14 California Code of Regulations ("CCR") §15378 (emphasis added). 3935-014acp



The DEIR, however, fails to properly describe crucial components of the Project. These components include the Project's fencing, lighting, the new substation and off-grid electrical system. As noted by Mr. Cashen in his comment letter, all of these components may have significant impacts on wildlife. Therefore, the DEIR must provide sufficient details to enable proper analysis of potential impacts and include mitigation. By failing to do so, the project description violates CEQA:

<u>Fencing</u>

The DEIR indicates the entire Project site would be fenced. However, the DEIR fails to provide necessary details sufficient to enable an assessment of the Project's impacts. Namely, the DEIR states that the final location and design of the fence would depend on the final Project's design,¹⁰ and provides no details on the type of fencing.

As Mr. Cashen notes in his comment letter, "[b]arbed-wire and other types of wire fences pose a mortality hazard to wildlife, including burrowing owls and other special-status species that occur in the Project area."¹¹ The project description must include sufficient detail on the fencing design to ensure that any potential impacts to wildlife from fencing will be mitigated.

Lighting

The DEIR states that the Project "would include external safety lighting and permanent lighting (...) Temporary construction lighting also may be necessary."¹² This description, according to Mr. Cashen, "is insufficient to evaluate the impacts the lighting may have on wildlife" (see discussion of the impacts below).¹³ A legally adequate description would include a description of the height, abundance and types of lights that will be used, to properly evaluate impacts on wildlife. 01-3

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¹⁰ Rancho Seco Solar II Project DEIR, May 2018, p. 2-13.

¹¹ Exhibit B: Cashen comments, p. 2.

¹² Rancho Seco Solar II Project DEIR, May 2018, p. 2-13.

¹³ Exhibit B: Cashen comments, p. 2.

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The Substation

The DEIR states that the Project includes construction and operation of a new substation.¹⁴ But the DEIR does not describe or map the location of the new substation, nor does it identify its size. This, as Mr. Cashen explains, "precludes the ability to independently evaluate impacts associated with construction of the new substation," such as lighting and the creation of new impervious surfaces.

Off-grid Electrical System

The DEIR states the Project includes "construction and installation of an offgrid electrical system to provide power to the Rancho Seco Park kiosk."¹⁵ The DEIR, however, fails to describe the off-grid electrical system and the activities that would be required to construct and install it. This precludes an understanding of the entire Project and its associated impacts.

B. The DEIR Fails to Adequately Describe Project Decommissioning

The project description must include, but is not limited to, "later phases of the project, and any secondary, support, or off-site features necessary for its implementation."¹⁶ The requirements of CEQA cannot be avoided by chopping a large project into many little ones or by excluding reasonably foreseeable future activities that may become part of the project.¹⁷

Under the "project description" section of the DEIR, SMUD provides an insufficient description of the project's decommissioning:

"At the end of the project's useful life (anticipated to be 30 to 35 years or more), it will be decommissioned. Given the project's operating life cycle and distant timeframe for decommissioning activities, it would be too speculative to describe the specific decommissioning activities in this EIR. Based on current decommissioning practices, as a reasonable-worst case, this

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¹⁴ Rancho Seco Solar II Project DEIR, May 2018, 3.1-14.

¹⁵ Rancho Seco Solar II Project DEIR, May 2018, p. 2-16.

¹⁶ Bozung v. Local Agency Formation Com. (1975) 13 Cal.3d 263, 283 - 84.

¹⁷ PRC § 21159.27 (prohibiting piecemealing); see also, Rio Vista Farm Bureau Center v. County of Solano (1992) 5 Cal.App.4th 351, 370. 3935-014acp



document assumes that environmental impacts generated during future decommissioning would be similar to those generated during project construction."¹⁸

The DEIR then moves on to very briefly describe, in less then one page, the standard decommissioning practices today, which include "dismantling and repurposing, salvaging/recycling, or disposing of the solar energy improvements, and site stabilization."¹⁹ The DEIR then describes, in general terms, the waste generated from decommissioning, the removal of the underground collection systems and the grading of the site after decommissioning.

This woefully brief description does not comply with CEQA, and the DEIR does not fulfill its purpose as a tool to inform the public. The DEIR purports to be a project-level CEQA document, not a program-level DEIR. SMUD, as the lead agency, must analyze the whole of the Project in a single environmental review document and may not piecemeal or split the project into pieces for purposes of analysis. The steps and environmental impacts of the decommissioning and restoration phase of the Project must be described and analyzed in a revised and recirculated DEIR, with the fullest degree of detail available, in order to provide the public with sufficient information to permit "an intelligent evaluation of the potential environmental effects of [the] proposed activity."²⁰

This flaw is not theoretical. As described below, the DEIR fails to properly address significant impacts decommissioning may have on waste generation, air quality and biological resources. As an initial step in curing these flaws, the DEIR must be revised to include a sufficient description of the Project's decommission, including the expected waste generation, timeline, grading activities and restoration.

III. THE DEIR ANALYSIS OF ALTERNATIVES IS INADEQUATE

Where a project is found to have significant adverse impacts, CEQA requires the adoption of a feasible alternative that meets most of the project objectives but $\int_{-0.9}^{0.9}$

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¹⁸ Rancho Seco Solar II Project DEIR, May 2018, p. 2-17.

¹⁹ Rancho Seco Solar II Project DEIR, May 2018, p. 2-18.

²⁰ San Joaquin Raptor vs. County of Stanislaus, (1994) 27 Cal. App. 4th 713, 730. 3935-014acp



results in fewer significant impacts.²¹ A "feasible" alternative is one that is capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors.²²

CEQA requires that an EIR provide a discussion of project alternatives that allows meaningful analysis.²³ An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives.²⁴ The purpose of the discussion of alternatives is both to support the decision makers and to inform public participation. Thus, "[a]n EIR's discussion of alternatives must contain analysis sufficient to allow informed decision making.²⁵ An EIR must also include "detail sufficient to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project.²⁶

A. The "Wetland Reduction Alternative"

The DEIR discussion of alternatives includes, in addition to the no-project alternative, only one other alternative: the "Wetland Reduction Alternative." This alternative "would include construction and operation of a reduced size solar facility on the project site that would reduce fill of wetlands and non-wetland waters (...) The Wetland Reduction Alternative would eliminate 11 percent of the solar arrays, and produce 11 percent less electricity than the proposed project."²⁷

The DEIR states that the Wetland Reduction Alternative would achieve the Project's objectives while at the same time reduce its impact on wetlands and biological resources:

²¹ Citizens of Goleta Valley v. Bd. of Supervisors (1988) 197 Cal.App.3d 1167, 1180-81; see also, Burger v. County of Mendocino (1975) 45 Cal.App.3d 322.

¹² Pub. Res. Code § 21061.1; 14 Cal. Code Regs. § 15364

¹³ Laurel Heights I, supra, 47 Cal.3d at 403.

²⁴ CEQA Guidelines § 15125.6.

²⁵ Lourel Heights I, supra, 47 Cal.3d at 404.

²⁶ Id. at 405.

²⁷ Rancho Seco Solar II Project DEIR, May 2018, p. 6-12. 3935-014acp



> "This alternative would attain most of the objectives identified in Section 6.2.1, "Attainment of Project Objectives," because it would involve construction and operation of a PV solar facility; begin construction prior to December 31, 2019; avoid wetlands and other sensitive habitat areas as feasible within the available SMUD-owned property; locate the facility as near as possible to existing electrical infrastructure with anticipated capacity; utilize the best available, efficient, cost-effective, and proven PV solar technology; be readily accessible from existing roads; and be adjacent to energy infrastructure to minimize the geographic extent of impacts."²⁸

The DEIR also includes a "Comparison of the Environmental Impacts of the Alternatives in Relation to the Project" table, which shows that, for two resources areas (geology and soils and hydrology and water quality), the Wetland Reduction Alternative will have a "less, but no significant difference" impact; for air quality, it will have a "similar, but slightly less" impact; and for biological resources, it will have "less" impact than the Project, since, as the DEIR acknowledges, "a reduced size PV solar facility would be constructed on the project site that would avoid fill of wetlands and non-wetland waters."²⁹ For GHG emissions and energy, the table shows that the impact of the Wetland Reduction Alternative will be "greater" than the Project.³⁰

Therefore, except for what the DEIR claims to be a greater impact on GHG and energy, the DEIR shows that the Wetland Reduction Alternative has a smaller impact on four resource areas, with the most significantly smaller impact on biological resources.

B. The DEIR Analysis of the GHG Impacts From the "Wetland Reduction Alternative" Fails to Comply with CEQA

The DEIR explains why the Wetland Reduction Alternative will have a greater impact on GHG and energy in the discussion that precedes the comparison table:

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²⁸ Rancho Seco Solar II Project DEIR, May 2018, p. 6-14.

²⁹ Rancho Seco Solar II Project DEIR, May 2018, p. 6-14.

³⁰ Rancho Seco Solar II Project DEIR, May 2018, table 6-1 p. 6-17. 3935-014acp



> "Under this alternative, a reduced size PV solar facility would be constructed on the project site. As such, all construction activities and resulting GHG emissions would be similar to, but slightly less than, the project. A reduction in the annual generation capacity of the facility would also result in a reduction in avoided GHG emissions. The decreased size of the solar facility is estimated to reduce the amount of total annual avoided emissions from 63.372 to 51.331 metric tons (MT) carbon dioxide-equivalent emissions (CO2e), a total decrease of 12,041 MT CO2e compared to the proposed project. Thus, while this alternative would result in a slight reduction of construction related GHG emissions, the reduction would be smaller than the amount of GHG avoided emissions lost through the reduction of solar capacity compared to the proposed project. Potential impacts of climate change on this alternative would be the same as the project because the site would be unchanged in location and the same County policies are in place to respond to the effects of climate change. Thus, GHG impacts under this alternative would be less than significant. (Greater)"³¹

The DEIR therefore argues that the reason the Wetland Reduction Alternative will have greater impact on GHG and energy is that reducing the solar capacity of the project means less GHG emission reductions will be achieved by replacing fossil fuel generated energy with clean solar energy.

This argument, however, suffers from two serious flaws. First, SMUD provides no substantial evidence to show which fossil-fuel generated energy produced elsewhere will be discontinued when the Project becomes operational. The DEIR simply provides no data regarding emissions that will be directly avoided from operating the facility. Therefore, there is no substantial evidence to support the conclusion that the reduced solar energy means "lost" avoided emissions.

Second, SMUD's analysis fails to comply with CEQA's requirement for analyzing the alternative's GHG impacts. Under CEQA, the analysis of a project's impacts on GHG emissions needs to analyze two questions – first, would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? Second, would it conflict with an applicable

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³¹ Rancho Seco Solar II Project DEIR, May 2018, p. 6-15,16. (Italics added) 3935-014ncp



plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?³²

Instead of comparing GHG emissions from the Wetland Reduction Alternative to the existing environment, the DEIR compares GHG emissions from the Wetland Reduction Alternative to GHG emissions from the Project in order to assess the Project and the alternative's relative benefits. While SMUD may consider the respective alternatives' beneficial contribution to the clean energy portfolio of SMUD, SMUD must, at a minimum, disclose the respective alternatives' impacts to the existing environment.³³

C. The DEIR Lacks Substantial Evidence to Conclude that the Proposed Project Alternative is the Environmentally Superior Alternative

The DEIR lacks substantial evidence to conclude that the proposed Project alternative is the environmentally superior alternative:

"The Wetland Reduction Alternative would reduce the amount of wetlands anticipated to be filled on the project site, but would nonetheless result in the conversion of land to solar fields, which could result in significant impacts to biological resources, including special-status species and their habitat. Because this alternative would involve construction of a reduced size PV solar facility, all construction activities and resulting impacts associated with air quality, GHG emissions, and transportation and traffic be similar to, or 01-12 slightly less than, the project. The GHG emissions that would be reduced from lesser construction would not be sufficient to offset the avoided GHG emissions associated with less solar capacity (assuming this capacity is otherwise provided by a non-renewable resource). Further, because this alternative would be constructed on the project site, impacts associated with aesthetics; archaeological, historical, and tribal cultural resources; geology and soils; hazards and hazardous materials; and hydrology and water quality would be similar to, or slightly less than, the project. This alternative would meet most of the project objectives. However, a reduced size PV solar facility may require the installation of reconductoring lines outside of the project area,

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³² CEQA Guidelines: Appendix G ("Greenhous Gas Emission") VII. ³³ 14 CCR §15063(b)(1). ³⁹395-014acp



> and would produce a smaller amount of energy (approximately 11 percent less solar power than the project) at a higher price. This would result in reduced ability to comply with California's renewable energy and greenhouse gas emission reduction laws and goals and SMUD Board Strategic Directive 9, and reduced ability to meet the needs of the Solar Shares program.

For these reasons, the project is the environmentally superior alternative because all significant impacts would be mitigated to less-than-significant levels, and all project objectives would be met while also reducing overall regional GHG emissions"³⁴

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The DEIR again erroneously relies on the loss of "avoided GHG emissions" as a justification for its conclusion that the proposed project is environmentally superior. As described above, the DEIR must properly evaluate the GHG impacts of the two alternatives, as required under CEQA. The DEIR must analyze the Project and alternative's GHG impacts, including whether either alternative contradicts any applicable plan or policy.

A revised DEIR must be prepared that properly analyzes each of the alternatives' impacts, as required by CEQA.

IV. THE DEIR FAILS TO ADEQUATELY DISCLOSE, ANALYZE, AND MITIGATE SIGNIFICANT IMPACTS ON UTILITIES AND SERVICE SYSTEMS, AIR QUALITY AND BIOLOGICAL RESOURCES

Legal Background

CEQA requires that an agency analyze the potential environmental impacts of its proposed actions in an environmental impact report ("EIR") (except in certain limited circumstances).³⁵ The EIR is the very heart of CEQA.³⁶ "The foremost principle in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language."³⁷

³⁴ Rancho Seco Solar II Project DEIR, May 2018, p. 6-18.

³⁵ See, e.g., PRC § 21100.

³⁶ Dunn-Edwards v. BAAQMD (1992) 9 Cal.App.4th 644, 652.

³⁷ Comtys. for a Better Env'v. Cal. Res. Agency (2002) 103 Cal. App.4th 98, 109 ("CBE v. CRA"). 3935-01-1acp



CEQA has two primary purposes. First, CEQA is designed to inform decision makers and the public about the potential, significant environmental effects of a project.³⁸ "Its purpose is to inform the public and its responsible officials of the environmental consequences of their decisions before they are made. Thus, the EIR 'protects not only the environment but also informed self-government."³⁹ The EIR 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."⁴⁰

Second, CEQA requires public agencies to avoid or reduce environmental damage when "feasible" by requiring "environmentally superior" alternatives and all feasible mitigation measures.⁴¹ The EIR serves to provide agencies and the public with information about the environmental impacts of a proposed project and to "identify ways that environmental damage can be avoided or significantly reduced."¹² If the project will have a significant effect on the environment, the agency may approve the project only if it finds that it has "eliminated or substantially lessened all significant effects on the environment where feasible" and that any unavoidable significant effects on the environment are "acceptable due to overriding concerns."⁴³

environment are "acceptable due to n "abuse of discretion" standard, "the very study or analysis presented by a

While the courts review an EIR using an "abuse of discretion" standard, "the reviewing court is not to 'uncritically rely on every study or analysis presented by a project proponent in support of its position. A clearly inadequate or unsupported study is entitled to no judicial deference."⁴¹ As the courts have explained, "a prejudicial abuse of discretion occurs "if the failure to include relevant information precludes informed decision-making and informed public participation, thereby thwarting the statutory goals of the EIR process."⁴⁵

⁴⁰ Berkeley Keep Jets Over the Bay v. Bd. of Port Comm'rs. (2001) 91 Cal. App. 4th 1344, 1354

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^{36 14} CCR § 15002(a)(1).

³⁹ Citizens of Goleta Valley v. Board of Supervisors (1990) 52 Cal. 3d 553, 564.

^{(&}quot;Berkeley Jets"); County of Inyo v. Yorty (1973) 32 Cal.App.3d 795, 810.

⁴¹ 14 CCR § 15002(a)(2) and (3); see also Berkeley Jets, 91 Cal.App.4th at 1354; Citizens of Goleta Volley, 52 Cal.3d at 564.

^{42 14} CCR §15002(a)(2).

⁴³ PRC § 21081; 14 CCR § 15092(b)(2)(A) & (B).

⁴⁴ Berkeley Jets, 91 Cal. App. 4th 1344, 1355 (emphasis added), quoting, Laurel Heights Improvement Assn. v. Regents of University of California (1988) 47 Cal.3d 376, 391 409, fn. 12.

⁴⁵ Berkeley Jets, 91 Cal.App.4th at 1355; San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus (1994) 27 Cal.App.4th 713, 722; Galante Vineyards v. Monterey Peninsula Water 3935-01 Incp



A. The DEIR Failed to Adequately Disclose, Analyze and Mitigate the Project's Potentially Significant Impacts on Utilities and Service Systems from Decommissioning

With regard to the waste generated by the Project's decommissioning, the project description section of the DEIR states:

"Actual decommissioning (...) would be conducted in accordance with all applicable requirements in effect at the time of project termination, and a final decommissioning plan, based on then-current technology, site conditions, and regulations, would be prepared prior to actual decommissioning.

Under current standard decommissioning practices, solar modules are removed, collected, and recycled or disposed of at a properly licensed landfill. Some or all of the components (i.e., aluminum and steel components) are salvaged and/or recycled, as feasible. Components that cannot be salvaged are removed and disposed of in accordance with applicable laws and regulations."⁴⁶

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Under "Utilities and Service Systems" in the "Scope of the Draft EIR" section, the DEIR very briefly addresses the issue of the waste generated from project's decommissioning:

"At the end of the project's useful life (approximately 30 to 35 years or longer), it would be decommissioned. Under current standard decommissioning practices, solar modules are removed, collected, and recycled or disposed of at a properly licensed landfill. Some or all of the components (i.e., aluminum and steel components) are salvaged and/or recycled, as feasible. Components that cannot be salvaged are removed and disposed of in accordance with applicable laws and regulations.

Therefore, no significant impacts to utilities and service systems would occur, and this issue is not discussed further."47

Management Dist. (1997) 60 Cal.App.4th 1109, 1117; County of Amador v. El Dorado County Water Agency (1999) 76 Cal.App.4th 931, 946.

⁴⁶ Rancho Seco Solar II Project DEIR, May 2018, p. 2-18.
 ⁴⁷ Rancho Seco Solar II Project DEIR, May 2018, p. 1-7.
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There are two problems with this discussion of the decommission impacts:

First, the DEIR fails to adequately describe the materials which will be used for the Project and, as a result, offers no certainty that the components will be recycled or reused upon decommissioning and dismantling. The DEIR also offers no details of wastes that may be produced by the decommissioning process. The DEIR must present a clear picture of whether Project components will be recycled or reused and, if certain components may not be recycled or reused, the waste stream that decommissioning is likely to generate. The DEIR must describe "reasonably foreseeable future activities." The fact that the future standards for recycling or reuse are not known does not mean the DEIR cannot describe the *known* details of the materials being used, and the reasonably foreseeable waste generation. Should the standards change in the future, the agency can incorporate adaptive mitigation to change the decommissioning plan accordingly.

Second, the DEIR completely ignores CEQA's requirement in Appendix G that the agency analyze whether the project will "be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?"⁴⁸ While the agency may not be able to predict with certainty the available future capacity of the relevant landfills, it must provide the public with the information it has now regarding the materials used for the Project, and asses the reasonably foreseeable amounts of waste that will be generated when the project is decommissioned.

The DEIR must be revised to properly account for and mitigate impacts on utilities and service systems from the Project's decommissioning.

B. The DEIR Lacks Substantial Evidence to Support its Conclusions Regarding Impacts on Air Quality. Substantial Evidence Shows the Project May Result in Potentially Significant, Unmitigated Impacts on Air Quality and Public Health

In the Air Quality section of the DEIR, the agency is required to disclose, analyze and propose mitigation to reduce the Project's construction and operation emissions of pollutants to less than significant levels. However, as shown by

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⁴⁸ CEQA Guidelines: Appendix G ("Utilities and Service systems") XVIII(f). 3935-014acp



SWAPE⁴⁹ and explained below, the DEIR analysis and conclusion are flawed. Specifically, the DEIR relies on construction emissions modeling that is not applicable to the Project, without justification. As a result, the DEIR's conclusions regarding the Project's impacts on air quality are not supported by substantial evidence. Moreover, SWAPE performed an updated construction emissions analysis, based on the Project's data and agency-accepted methods for air quality evaluation, and found that the Project's NOx emissions exceed the significance threshold set forth by the Sacramento Metropolitan Air Quality Management District's (SMAQMD).

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1. The DEIR's Air Quality Assessment Relies on Improper Modeling Tools Without Proper Justification

The SMAQMD guidance document for modeling construction emissions recommends using CalEEMod software to estimate and quantify construction emissions. The guidance document states:

"when possible, the quantification of emissions associated with the construction of land use development projects shall be estimated using the most recent version of CalEEMod and used in accordance with the CalEEMod User's Guide".⁵⁰

The document allows for using a different tool, the U.S. EPA Compilation of Air Pollution Emissions Factors AP-42 ("AP-42") to calculate emissions from heavy construction equipment. It does, however, limit such use with specific conditions:

"Construction emissions may also be estimated using U.S. Environmental Protection Agency air pollutant (AP-42) emission factors for heavy construction operations *if a project includes some unique aspects or construction activities* (e.g., excessive stockpiling) that make this method of calculation the logical choice. Before using AP-42 emission factors or emission

⁵⁰ "CEQA Guide: Construction- Generated Criteria Air Pollutant and Precursor Emissions," SMAQMD, May 2017, available at:

⁴⁹ Exhibit A: SWAPE comments.

http://www.airquality.org/LandUseTransportation/Documents/Ch3ConstructionFINAL5-2017.pdf, p. 3-5 3935-014acp



factors from any other source, it is recommended that the lead agency consult with the District."⁵¹

The DEIR for the Project relies on construction emissions calculated from AP-42 with defaults from CalEEMod. Specifically, the Applicant uses CalEEMod to estimate emissions associated with construction-related vendor and worker vehicle trips and then uses default estimates from CalEEMod in the AP-42 calculations to estimate the emissions associated with fugitive dust and use of construction equipment.⁵²

As noted by SWAPE, this reliance on the AP-42 tool is not consistent with SMAQMD's guidelines. SWAPE reviewed the DEIR and found that not only did the Applicant fail to provide any evidence of correspondence with the SMAQMD regarding use of AP-42 to estimate the Project's construction-related emissions; but the Project does not appear to have any "unique" construction activity or components that justify the use of AP-42 instead of CalEEMod.⁵³

"As a result, the emissions estimates provided by the Project Applicant's AP-42 calculations should not be used to evaluate the Project's impacts and to determine Project significance."⁵⁴

2. Substantial Evidence Shows the Project May Result in Potentially Significant, Unmitigated Impacts on Air Quality from Construction Emissions

In light of the lack of substantial evidence to support the DEIR conclusion regarding impacts from construction emissions, and to more accurately estimate the actual Project emissions, SWAPE prepared an updated CalEEMod model. SWAPE conducted their modeling using the most recent CalEEMod version and site-specific

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⁵¹ "CEQA Guide: Construction- Generated Criteria Air Pollutant and Precursor Emissions," SMAQMD, May 2017, available at:

<u>http://www.airquality.org/LandUseTransportation/Documents/Ch3ConstructionFINAL5-2017.pdf</u>, p. 3-6

⁵² Exhibit A: SWAPE comments, p. 1.

⁵³ Exhibit A: SWAPE comments, p. 2-3.

⁵⁴ Exhibit A: SWAPE comments, p. 3.

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information provided within the DEIR and associated appendices to estimate emissions. SWAPE's assumptions for the modeling are detailed in their letter.⁵⁵

SWAPE's revised analysis using the proper modeling and site-specific data found that the Project's construction-related criteria air pollutant emissions increase significantly when compared to the DEIR's AP-42 emission factor calculations. Furthermore, SWAPE found that the Project's construction-relation NOx emissions exceeds the 85 pounds per day (lbs/day) threshold set forth by the SMAQMD (see table below).

Maximum Daily Construction Emissi (lbs/day)	ons
Model	NOx
DEIR	138
SWAPE	279
Percent Increase	102%
SMAQMD Regional Threshold	
(lbs/day)	85
Exceed?	Yes

01-17 cont

As shown above, when CalEEMod is used to model emissions, construction-related NOx emissions increase by 102% percent and exceed the SMAQMD's established threshold.⁵⁶

SWAPE's results show with substantial evidence that the Project would result in a significant impact that was not identified in the DEIR. As a result, a revised DEIR with an updated analysis must be prepared that adequately estimates the Project's emissions, and SMUD must identify and incorporate additional mitigation measures to reduce the impacts to less than significant.

 ⁵⁵ Exhibit A: SWAPE comments, p. 3-4.
 ⁵⁶ Exhibit A: SWAPE comments, p. 4-5.
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3. The DEIR fails to Evaluate Potential Air Quality Impacts from Decommissioning Activities

As discussed previously, the DEIR fails to properly describe the Project's decommissioning process, and it lacks sufficient detail and a timeline. In addition, the DEIR fails to analyze specific potentially significant impacts that decommissioning may have on various resource areas, including air quality.

As SWAPE explains, "emissions from decommissioning activities include truck and equipment traffic emissions, diesel emissions from generator equipment and fugitive dust emissions from land clearing, panel and support structure removal, backfilling, dumping, and restoration of disturbed areas through grading, seeding, and planting."⁵⁷ The DEIR acknowledges that decommissioning activity will include hauling and grading activities,⁵⁸ which will generate criteria air pollutants. Despite that acknowledgment, the DEIR completely fails to discuss decommission impacts under the air quality section. As SWAPE explains, "[a]t a minimum, an air quality analysis should be prepared for decommissioning activities and should implement mitigation measures based upon enforceable performance standards that are identified now."

01-18

The DEIR's complete lack of analysis leaves the DEIR discussion of impacts on air quality incomplete. A revised DEIR must be prepared to evaluate the emissions associated with decommissioning activities.

4. The DEIR Failed to Adequately Disclose, Analyze and Mitigate the Project's Significant Cancer Risk from Construction Emissions

a. The DEIR Lacks Substantial Evidence to Support Its Conclusion that the Project Would Result in Less Than Significant Public Health Impacts

The DEIR concludes that the Project would have a less than significant health risk impact with implementation of proposed mitigation. The DEIR reaches

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⁵⁷ Exhibit A: SWAPE comments, p. 5.

⁶⁶ Rancho Seco Solar II Project DEIR, May 2018, p. 2-18 3935-014ncp



this conclusion without conducting a construction health risk assessment (HRA).⁵⁹ The DEIR attempts to justify the lack of an HRA as follows:

"Measures included in Mitigation Measure 3.2-1 that focus on exhaust emissions reductions, particularly those requiring the use of alternative fuels and fuel-efficient construction equipment, would serve to also reduce diesel PM exhaust emissions and reduce the overall cancer risk associated with these pollutants... In consideration of the above, this impact would be less than significant after mitigation"⁶⁰

As SWAPE explain, SMUD's justification for failing to conduct a quantitative construction HRA is incorrect for two reasons. First, the emission calculation method used in the DEIR significantly underestimates the Project's emissions, as discussed above. As SWAPE explains,

The mitigation measures proposed within the DEIR are likely not sufficient to reduce the Project's construction-related health risk to less than significant levels. Thus, the DEIR should have conducted some sort of quantitative analysis of the Project's potential constructionrelated health risk impact and should have compared the results of this analysis to applicable thresholds.

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The SMAQMD provides a specific numerical threshold of 10 in one million for determining a project's health risk impact against which the Project's impact must be evaluated. ⁶¹

Second, SWAPE explains that failing to conduct a proper HRA conflicts with the most recent guidance published by the Office of Environmental Health Hazard Assessment (OEHHA), the organization responsible for providing recommendations and guidance on how to conduct health risk assessments in California. OEHHA recommends that all short-term projects lasting at least two months be evaluated for cancer risks to nearby sensitive receptors, and that exposure from projects lasting more than 6 months should be evaluated for the duration of the project. Therefore, per OEHHA guidelines, health risk impacts from Project construction

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⁵⁹ Rancho Seco Solar II Project DEIR, May 2018, p. 3.2-25.

⁶⁰ Rancho Seco Solar II Project DEIR, May 2018, p. 3.2-25.

⁶¹ Exhibit A: SWAPE comments, p. 7.

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should have been evaluated by the DEIR. These recommendations reflect the most recent HRA policy, and as such, an assessment of health risks to nearby sensitive receptors from construction should be included in a revised CEQA evaluation for the Project.⁶²

Therefore, the Project Applicant must conduct an assessment that compares the Project's construction health risks to SMAQD's threshold in order to determine the Project's health risk impact. By failing to prepare an HRA, the DEIR fails to provide a comprehensive analysis of the sensitive receptor impacts that may occur as a result of exposure to substantial air pollutants.

> b. The Project Will Result in a Significant, Undisclosed and Unmitigated Lifetime Cancer Risk from Exposure to Contaminants Generated by Project Construction

In order to demonstrate the potential risk posed by the Project's construction to nearby sensitive receptors, SWAPE performed a screening level health risk assessment of the Project's diesel particulate matter (DPM) emissions using the AERSCREEN model. Due to the nature of the project, operational emissions would be limited and, as a result, SWAPE only evaluated the Project's construction-related DPM emissions.⁶³

AERSCREEN is recommended by OEHHA and the California Air Pollution Control Officers Associated (CAPCOA) guidance as the appropriate air dispersion model for Level 2 health risk screening assessments ("HRSAs").⁶⁴ SWAPE evaluated the Project's construction impacts to sensitive receptors using the annual PM10 exhaust estimates from the annual CalEEMod output files.

SWAPE found the closest sensitive receptor is approximately 50 feet, or 15 meters, from the Project site. Consistent with recommendations set forth by OEHHA, SWAPE used a residential exposure duration of 30 years, starting from

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⁶² Exhibit A: SWAPE comments, p. 7.

⁶³ Exhibit A: SWAPE comments, p. 7.

⁶⁴ Exhibit A: SWAPE comments, p. 8.

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the infantile stage of life.⁶⁵ SWAPE's model and exposure assumptions are detailed in their letter.⁶⁶ Their results are shown in the table below:

The Maximum Exposed Individual at an Existing Residential Receptor (MEIR)							
Activity	Durati on (years)	Concentrat ion (µg/m ^s)	Breathing Rate (L/kg- day)	ASF	Cance r Risk		
					5.0E-		
Construction	0.25	0.3665	361	10	06		
3rd Trimester				3rd Trimester	5.0E-		
Duration	0.25			Exposure	06		
					5.1E-		
Construction	0.85	0.3665	1090	10	05		
Infant Exposure					5.1E-		
Duration	0.85			Infant Exposure	05		
Construction Expos	ure			Construction	5.6E-		
Duration	1.10			Exposure	05		

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SWAPE's analysis found that unmitigated DPM emissions released during Project construction would result in an excess cancer risk beyond SMAQMD's significance threshold: The excess cancer risk posed to infants at the MEIR located approximately 25 meters away, over the course of Project construction is approximately 51 in one million. The excess cancer risk over the course of Project construction at the MEIR is approximately 56 in one million. The infant and lifetime cancer risks exceed the SMAQMD threshold of 10 in one million. Therefore, the Project would result in an undisclosed significant impact requiring mitigation. ⁶⁷

As noted by SWAPE,⁶⁸ a screening-level HRA is known to be more conservative and is aimed at health protection, but its purpose is to determine if a more refined HRA needs to be conducted. Here, a more refined HRA must be prepared to properly disclose and analyze the Project's significant impacts.

- 66 Exhibit A: SWAPE comments, p. 8-10.
- 67 Exhibit A: SWAPE comments, p. 9.
- ⁶⁸ Exhibit A: SWAPE commenta, p. 9-10.
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⁶⁵ Exhibit A: SWAPE comments, p. 8.



In sum, the DEIR fails to analyze the Project's significant, unmitigated impacts on public health from exposure to contaminants generated by the Project's construction.

C. The DEIR Fails to Adequately Analyze, Quantify and Mitigate the Project's Significant Impacts on Biological Resources

According to the DEIR, the Project site contains a variety of habitats including federally protected wetlands. Eight land cover types— including annual grassland, seasonal wetland, vernal pool and seasonal swale, among others—were identified on the project site. The Project site is within designated critical habitat for Sacramento Orcutt grass, vernal pool fairy shrimp, vernal pool tadpole shrimp, and California tiger salamander, and the DEIR acknowledges the site has a potential to support other special status wildlife.⁶⁹

Despite that, as described below, the DEIR fails to properly disclose and analyze the Project's impacts on many of the biological resources within the Project Site and vicinity. The DEIR fails to properly establish the existing setting for some of the resources and fails to adequately disclose and analyze the impacts on other resources. With regard to mitigation, many of the proposed mitigation measures fail to mitigate the impact to a less than significant level, and some biological resources mitigation measures are completely missing from the DEIR.

1. The DEIR Fails to Adequately Establish the Existing Setting for Biological Resources

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.⁷⁰ 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.⁷¹ Describing the environmental setting accurately and completely for each

⁷⁰ See, e.g., Communities for a Better Envit 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 ("Fat"), citing Remy, et al., Guide to the Calif. Environmental Quality Act (1999) p. 165.

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⁶⁹ Rancho Seco Solar II Project DEIR, May 2018, p. 3.3-16, 3.3-9, 3.3-20

⁷¹ CEQA Guidelines §15125(a) (emphasis added); Riverwatch v. County of San Diego (1999) 76 Cal.App.4th 1428, 1453 ("Riverwatch"). 3935-01-acp



environmental condition in the vicinity of the Project is critical to an accurate, meaningful evaluation of environmental impacts. The courts have clearly stated that "[b]efore the impacts of a project can be assessed and mitigation measures considered, an [environmental review document] must describe the existing environment. It is only against this baseline that any significant environmental effects can be determined."⁷²

The DEIR, however, fails to properly describe the environmental setting for some special status species, including both plants and animals:

Special Status Plants

According to the DEIR, no special-status plants were found on the Project site or in the larger survey area during the protocol-level surveys.⁷³ Therefore, SMUD concludes in the DEIR that special-status plants are considered absent from the project site.⁷⁴ Mr. Cashen explains that this conclusion is flawed for several reasons.

First, although the biological resource consultant determined that 11 specialstatus plant species have the potential to occur on the Project site, "neither the DEIR nor Biological Resources Technical Report ("BRTR") provided any evidence that the ICF botanists visited reference sites to confirm the target species were evident and identifiable at the time of the surveys."⁷⁵ Second, surveys that were conducted failed to adhere to the requirement to conduct comprehensive surveys using systematic field techniques in all habitats of the site to ensure thorough coverage of potential impact areas, and this fact is acknowledged by the BRTR. ⁷⁶ Third, the DEIR concluded that there is no potential for Sanford's arrowhead to occur at the Project site due to the absence of suitable habitat; however, Mr. Cashen shows this conclusion contradicts both the scientific knowledge on this species' habitat, as well as the BRTR itself, which found there is potential for the species occurrence.⁷⁷ Finally, the Project's botanists detected a *Fritillaria* species in the

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¹² County of Amador v. El Dorado County Water Agency (1999) 76 Cal.App.4th 931, 952.

⁷³ Rancho Seco Solar II Project DEIR, May 2018, p. 3.3-16.

⁷⁴ Rancho Seco Solar II Project DEIR, May 2018, p. 3.3-16.

⁷⁵ Exhibit B: Cashen comments, p. 3-4.

⁷⁶ Exhibit B: Cashen comments, p. 4.

⁷⁷ Exhibit B: Cashen comments, p. 4.

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study area. As explained by Mr. Cashen, the three species of that plant which may occur on the site are all special-status plants.⁷⁸

For these reasons, no substantial evidence supports the DEIR conclusion that special-status plants are absent from the Project site and, thus, that Project impacts to special-status plants would be less than significant.

Special Status Animals

The DEIR concludes that 14 special-status animal species have the potential to occur on the Project site, of which 13 have a moderate or high potential to occur.⁷⁹ Five of these species are listed under the Endangered Species Act, the California Endangered Species Act, or both. In addition, two of the species are "fully protected" under California Fish and Game Code. The DEIR assumes that the Project could have significant impacts on the special-status animal species with potential to occur at the site. However, it does so without properly establishing the setting.

Specifically, the DEIR relies on no survey protocol or equivalent data for six of the special-status animals with potential to occur on the site. This fact prevents SMUD from properly mitigating the impacts in the DEIR. As Mr. Cashen explains, without the proper data on the animal's presence on the site it is impossible to comply with CEQA's requirement to ensure adequate mitigation:

"For example, the DEIR concluded that the Project would result in the loss of suitable nesting, wintering, and foraging habitat for burrowing owl. However, because ICF failed to conduct focused surveys for burrowing owls, SMUD has no idea whether the Project would impact habitat for 10 breeding pairs, 2 wintering birds, or no burrowing owls whatsoever. It also has no idea whether the potential mitigation lands adjacent to the Project site support more owls or less owls than the Project site. This precludes SMUD's ability to conclude that the habitat proposed as mitigation for Project impacts would replace the habitat functions eliminated from the Project site (i.e., that impacts would be mitigated to less than significant levels)."⁸⁰

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⁷⁸ Exhibit B: Cashen comments, p. 5.

⁷⁹ Rancho Seco Solar II Project DEIR, May 2018, Table 3.3-2.

⁸⁰ Exhibit B: Cashen comments, p. 5.

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California Tiger Salamander (CTS)The DEIR provides the following conclusion regarding breeding habitat for
the California tiger salamander at the Project site: "[a]quatic habitat within the
project site is not expected to support breeding based on ponding depth and
duration (no areas of more than 6 inches of ponding were observed during April
2017 surveys)."⁸¹As explained by Mr. Cashen,⁸² this conclusion is not supported by substantial
evidence for three reasons: first, it is based on the assumption that there is a
threshold for water depth to determine potential habitat for CTS. However, the
USFWS recognizes no such threshold. Second, it is based on site visits that were
conducted in a time of the year when it was too late to spot all possible emergence of
CTS. Finally, protocol-level breeding season surveys were never conducted.Western Red BatThe DEIR concludes that there is no potential for the western red bat
here is a based on site visite that there is no potential for the western red bat

because "no suitable roost trees are present on the project site."⁸³ However, Mr. Cashen shows that suitable trees for the western red bat actually occur on the site. "Because the Project includes removal of a few trees that provide potential roost sites for the western red bat, the EIR must analyze impacts to the species, and it must incorporate mitigation that ensures any potentially significant impacts to the species are reduced to less than significant levels."⁸⁴

Midvalley Fairy Shrimp and Ricksecker's Water Scavenger Beetle

According to Mr. Cashen, "[t]he Project site provides potential babitat for the mid-valley fairy shrimp and Ricksecker's water scavenger beetle, both of which are special-status species that are associated with vernal pool communities."⁸⁵ However, the DEIR fails to disclose or analyze potentially significant impacts to either of

⁸¹ Rancho Seco Solar II Project DEIR, May 2018, Table 3.3-2.

⁸² Exhibit B: Cashen comments, p. 6.

⁸³ Rancho Seco Solar II Project DEIR, May 2018, Table 3.3-2.

⁸⁴ Exhibit B: Cashen comments, p. 7.

⁸⁵ Exhibit B: Cashen comments, p. 7.

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these species. Mr. Cashen explains that "[t]his precludes the public from having a 01-27 full understanding of the Project's impacts to special-status species."86

2. The DEIR Fails to Adequately Disclose and Analyze **Impacts on Biological Resources**

An EIR must fully disclose all potentially significant impacts of a Project and implement all feasible mitigation to reduce those impacts to less than significant levels. The lead agency's significance determination with regard to each impact must be supported by accurate scientific and factual data.87 An agency cannot conclude that an impact is less than significant unless it produces rigorous analysis and concrete substantial evidence justifying the finding.86 As explained by Mr. Cashen, the DEIR fails to comply with these CEQA requirements with respect to potentially significant impacts and required mitigation for a number of biological resources.

Avian Collision Hazard

Mr. Cashen explains that research shows solar facilities pose threats to birds in a number of ways.

At PV facilities, birds appear to mistake the broad reflective surfaces of the solar arrays for water, trees, and other attractive habitat. When this occurs, the birds become susceptible to mortality by: (a) colliding with the solar arrays; or (b) becoming stranded (often injured) on a substrate from which they cannot take flight, thereby becoming susceptible to predation and starvation.

There is also evidence that PV solar panels produce polarized light pollution that attracts insects, which in turn attract insectivores (insect-eating birds). Those birds then become susceptible to injury or death when they attempt to prey upon the insects that have been attracted to the PV solar panels. Dead and injured insectivores then attract avian predators and scavengers, which too become susceptible

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⁸⁶ Exhibit B: Cashen comments, p. 7. Footnotes omitted.

^{87 14} CCR § 15064(b).

⁸⁸ Kings Cty. Farm Bur. v. Hanford (1990) 221 Cal.App.3d 692, 732. 3935-014acp



to collision with the PV panels and other project features. As Kagan et al. (2014) reported, this creates an entire food chain vulnerable to injury and death.⁸⁹

In addition, there is growing concern among the researchers and wildlife protection agencies of the "lake effect" created by solar facilities. The "lake effect" is created when waterbirds mistake the PV arrays for a water body. As Mr. Cashen explains, "[a]lthough solar facilities kill all types of birds, monitoring reports have documented an unexpectedly high proportion of waterbird deaths at recently constructed solar energy facilities, including those that use PV solar panels."⁹⁰

Mr. Cashen explains that the nature and magnitude of impacts to bird populations is generally related to three main project-specific factors: location, size, and technology. The Project site is located along the Pacific Flyway and the concentrated route that passes through the Central Valley. It is also in close proximity to the Rancho Seco Lake which is a winter refuge for many bird species and surrounded by habitats that the biology report acknowledges provide foraging and resting opportunities for migratory birds.

Mr. Cashen concludes that "[d]ue to the Project's location in relation to bird habitats, there is a heightened risk that birds will mistake the Project's solar arrays for water, resulting in bird strikes and entrapment. Based on the estimates provided by Walston et al. (2016), the proposed Project would kill approximately 1,209 to 1,391 birds annually."⁹¹ Despite that, states Mr. Cashen, "the DEIR fails to disclose or analyze this potentially significant impact. As a result, the DEIR must be revised such that it informs the public and decision makers of the potential risks associated with constructing a PV power plant in an area that is heavily populated by birds, including several species that are listed as Threatened, Endangered, or Fully Protected."⁹²

⁸⁹ Exhibit B: Cashen comments, p. 7-8, Footnotes omitted.

⁹² Exhibit B: Cashen comments, p. 9.

⁹⁰ Exhibit B: Cashen comments, p. 8.

⁹¹ Exhibit B: Cashen comments, p. 9.

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Powerline Hazard

The Project includes an interconnection line from the onsite substation to the expanded 230-kV switchyard, as well as five new power lines through an undeveloped area to connect to the substation, anticipated by SMUD.⁹³

Mr. Cashen explains that despite the fact that "[b]irds, especially raptors, are susceptible to collision with, and electrocution from, power lines,"⁹⁴ the DEIR fails to disclose or analyze both the collision and electrocution hazard associated with the Project's power lines and fails to identity whether the Project would adhere to wellaccepted guidelines to reduce that risk. Therefore, potentially significant impacts associated with the Project's power lines remain undisclosed and unmitigated.

Ecological Impacts from Night Lighting

The Project includes a considerable amount of night lighting.⁹⁵ Mr. Cashen explains that night lighting can have numerous adverse effects on plants, animals, and ecological communities. Night lighting may adversely impact the ability to prey or avoid predators and can also affect wildlife reproduction, movement, and communication. Birds in particular are subject to adverse impacts by night lighting. In addition to collision hazards from night lighting, Mr. Cashen explains that "night lighting can 'trap' birds, because once a bird is within a lighted zone at night it will not leave the lighted area. The apparent entrapment of birds at artificial light sources results in exhaustion, disorientation, and increased risk of incurring secondary injuries."⁹⁶

The DEIR states that night lighting associated with the Project would be shielded and directed downward to prevent glare.⁹⁷ However, Mr. Cashen notes that these measures would not prevent potentially significant impacts to biological resources because they address a different lighting issue – "astronomical light pollution" – and not significant impacts on wildlife.⁹⁶ The DEIR should analyze

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⁹³ Rancho Seco Solar II Project DEIR, May 2018, p. 2-12.

⁹⁴ Exhibit B: Cashen comments, p. 12

⁹⁵ Rancho Seco Solar II Project DEIR, May 2018, p. 2-13.

⁹⁶ Exhibit B: Cashen comments, p. 13.

⁹⁷ Rancho Seco Solar II Project DEIR, May 2018, p. 3.1-22.

⁹⁸ Exhibit B: Cashen comments, p. 13.

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<u>Wetlands</u>

One of the most ecologically important features of the Project's site are wetlands. There are 8.88 acres of wetlands and 0.39 acres of non-wetland waters on the Project site.⁹⁹ An additional 0.42 acres of wetlands and 0.01 acres of nonwetland waters are located in the 250-foot buffer that has been established to reduce impacts to SMUD's mitigation bank.¹⁰⁰ Additional wetlands and nonwetland waters are located adjacent to portions of the Project site lacking a buffer.¹⁰¹ All of these wetlands and non-wetland waters are considered waters of the United States and waters of the State.¹⁰²

The DEIR acknowledges that "[p]ermanent loss and degradation of federally protected wetlands and other waters would be a significant impact."¹⁰³ However, the analysis of the Project's potential impacts on wetlands suffers from several serious flaws. These flaws render SMUD's conclusion in the DEIR unsupported by substantial evidence and deprive the public of the opportunity to meaningfully understand and comment on the Project's impacts.

With regard to *direct/permanent impacts*, Mr. Cashen explains that while according to the DEIR the Project would result in direct loss (through permanent fill) of 0.35 acre of federally protected wetlands and 0.01 acre of non-wetland waters,¹⁰⁴ the BRTR for the Project concluded the Project would permanently impact 9.1 acres of wetlands and non-wetland waters.¹⁰⁵ Mr. Cashen notes that while the Project footprint was reduced slightly between the BRTR and the DEIR publication, this does not explain this large difference in figures, which remains unexplained.¹⁰⁶

105 BRTR, Table 1.

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²⁹ Rancho Seco Solar II Project DEIR, May 2018, Table 3.3-1. ¹⁰⁰ *Ibid*.

¹⁰¹ ICF. 2017 Sep. Rancho Seco Solar II Project: Aquatic Resources Delineation Report.

¹⁰² Ibid, Table ES-1. See also DEIR, p. 3.3-22.

¹⁰³ Rancho Seco Solar II Project DEIR, May 2018, p. 3.3-27.

¹⁰⁴ Rancho Seco Solar II Project DEIR, May 2018, p. 3.3-26.

¹⁰⁶ Exhibit B: Cashen comments, p. 14

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Mr. Cashen further notes that the DEIR fails to explain how SMUD calculated permanent (or direct) impacts to jurisdictional waters. Also, based on the information provided in the DEIR, it seems SMUD did not take into account some significant impacts, including direct impacts associated with the internal roads, direct impacts associated with the trucks and other equipment that would be required to install the transmission lines and, most importantly, impacts from puncturing the duripan when installing the support poles for the solar arrays. As Mr. Cashen explains, the duripan "is the soil horizon that enables vernal pools to hold water. Puncturing the duripan allows water to drain from the pool, thus causing a permanent impact to the entire vernal pool. As a result, the total surface area of any vernal pool whose duripan is punctured should be included in the calculation of permanent impacts."¹⁰⁷

With regard to *indirect impacts*, Mr. Cashen explains, "[t]he DEIR identifies several ways in which aquatic features on the Project site could be indirectly affected by the Project. However, it fails to identify whether those indirect impacts would be permanent or temporary." The DEIR also contains an internal contradiction in the numbers used in measuring indirect impacts.¹⁰⁸

The DEIR also concludes that indirect impacts to aquatic resources offsite would be avoided entirely, by relying on a Stormwater Pollution Prevention Plan ("SWPPP") and buffer zone. As Mr. Cashen explains, this conclusion lacks merit for three main reasons.¹⁰⁹

First, the SWPPP is not yet in existence, and numerous examples show that such plans fail in preventing sedimentation, changes to the hydrologic regime, and other offsite impacts. Because the DEIR fails to incorporate performance standards for offsite resources, it provides no assurances that potentially significant indirect impacts to aquatic resources offsite would be avoided. Second, the mitigation measure requires the SWPPP only for construction, leaving impacts from operations and decommissioning unmitigated. Finally, considerable portions of the Project site do not contain any buffers between Project features and aquatic resources located on offsite properties, so the reliance on buffers is inappropriate for them.

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¹⁰⁷ Exhibit B: Cashen comments, p. 15.

¹⁰⁸ Exhibit B: Cashen comments, p. 15.

¹⁰⁹ Exhibit B: Cashen comments, p. 16-17

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With regard to temporary impacts, Mr. Cashen notes that while the DEIR assumes the Project would temporarily impact all "wetlands," the accompanying analysis only discusses temporary impacts to "non-wetland" waters. ¹¹⁰ "This issue is compounded by the DEIR's failure to analyze the temporary impact that may occur during operation and decommissioning of the Project." ¹¹¹ All those analysis flaws, explains Mr. Cashen, renders the DEIR conclusion	
regarding impacts on wetlands unsupported by substantial evidence. The DEIR must be revised to provide:	
 A clear account of all Project impacts to jurisdictional waters, both onsite and offsite, by impact type and duration (i.e., direct, indirect, permanent, and temporary). 	01-32 cont
2. A clear account of the sources of impacts (e.g., road construction, post installation, vegetation removal, etc.) and a description of how those impacts were calculated.	
 Unambiguous determinations of significance for each impact category (i.e., direct permanent, direct temporary, indirect permanent, and indirect temporary).¹¹² 	
Without this analysis, the DEIR fails to comply with CEQA as a matter of law.	
Impacts to Vernal Pool Branchiopods	
Mr. Cashen explains that the DEIR analysis of the impacts to Vernal Pool Branchiopods are based on flawed assumptions not supported by substantial evidence:	
The assumption that 60 percent ground cover by solar panels would result in shading to approximately 60 percent of the wetland habitats is only valid if the wetlands are evenly distributed across the site. However, the wetlands <i>are not</i> evenly distributed across the site, nor is potential habitat for vernal pool branchiopods. Furthermore, there is a considerable difference between 60 percent of the wetlands being	01-33

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¹¹⁰ Rancho Seco Solar II Project DEIR, May 2018, p. 3.3-27.

¹¹¹ Exhibit B: Cashen comments, p. 17.

¹¹² Exhibit B: Cashen comments, p. 18. 3935-014acp



> exposed to shading, and 60 percent of the wetland area being shaded. In other words, even if only 10% of a wetland is shaded, the entire wetland would (or could) experience indirect effects due to that shading.¹¹³

Mr. Cashen points out that the DEIR's statement that implementation of the Project would result in approximately 60 percent ground cover and 40 percent open ground is inconsistent with his observations of other PV facilities and with the implied goal of maximizing electric capacity in as small a spatial footprint as possible. The DEIR fails to explain how the figures were derived, and whether they provide a valid index of indirect impacts to branchiopod habitat. To properly analyze the Project's impact, SMUD must provide: (a) specific information on the amount of mitigation being proposed under MM 3.3-3, (b) a clear and scientifically defensible explanation for why some habitat features do not require compensatory mitigation, and (c) a detailed description of how direct and indirect impacts to potential branchiopod habitats were calculated.

Impacts to California Tiger Salamanders (CTS)

With regard to impacts on CTS, Mr. Cashen points out the DEIR conclusion regarding the numbers of acres that will be impacted contradicts both one of its own conclusions, as well as the BRTR's conclusion.¹¹⁴ In addition, both the DEIR and BRTR provide substantial evidence of a significantly larger impact.¹¹⁵

Mr. Cashen explains, "the DEIR fails to provide a clear and defensible breakdown of the various impacts (permanent, temporary, direct, and indirect) to each habitat type and species that could be affected by the Project."¹¹⁶ This lack of information "precludes an accurate understanding of Project impacts to sensitive biological resources and the mitigation that SMUD is proposing to mitigate those impacts."¹¹⁷ Mr. Cashen explains that the lack of information also "precludes the public's ability to evaluate Project alternatives and the conclusions presented in the DEIR."¹¹⁸

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¹¹³ Exhibit B: Cashen comments, p. 23-24. Footnotes omitted.

¹¹⁴ Exhibit B: Cashen comments, p. 24-25.

¹¹⁵ Exhibit B: Cashen comments, p. 24-25.

¹¹⁶ Exhibit B: Cashen comments, p. 24-25.

¹¹⁷ Exhibit B: Cashen comments, p. 24-25.

¹¹⁸ Exhibit B: Cashen comments, p. 24-25

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Burrowing Owl Impacts

Mr. Cashen points out that the DEIR's conclusion that despite the disturbed habitat "it is expected that burrowing owls would still be able to use the project site following construction"¹¹⁹ contradicts the scientific knowledge on the species and 01-35 lacks substantial evidence. Mr. Cashen shows that there is substantial evidence to the contrary, showing burrowing owls avoid areas that do not provide a clear line of sight to predators.¹²⁰ Weeds Despite clear evidence in the BRTR and relevant research of the disruptive impacts weeds have on ecosystems, the DEIR provides no analysis of the Project causing weeds to grow and cause potentially significant impacts, nor does it 01-36 incorporate any mitigation for them. As a result, potentially significant impacts associated with the spread and colonization of weeds remain unmitigated.¹²¹ Cumulative impacts The cumulative impacts discussion in the DEIR suffers from several flaws. First, while the DEIR identifies the geographic scope of cumulative impacts analysis vaguely as "regional and local," the cumulative projects listed in Table 4-2 01-37 are limited to seven projects in the immediate vicinity of the Project. This indicates the geographic scope was local, but not regional. In addition, Mr. Cashen notes that examining cumulative impacts to Swainson's hawks requires information on the number of active nest sites within a 10-mile radius of the Project site, and similarly, the amount of foraging habitat that 01-38 has been, or will be, affected by cumulative projects within a 10-mile radius of each nest site. The DEIR's failure to identify cumulative projects within 10 miles of the Swainson's hawk territory adjacent to the Project site precludes the ability to evaluate cumulative impacts to that species.¹²²

¹¹⁹ Rancho Seco Solar II Project DEIR, May 2018, p. 3.3-46.

¹²⁰ Exhibit B: Cashen comments, p. 25-26

¹²¹ Exhibit B: Cashen comments, p. 29.

¹²² Exhibit B: Cashen comments, p. 30-31.

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Finally, the DEIR's cumulative impacts analysis concludes with the argument that: "[t]hrough full implementation of the mitigation measures, potential project-related impacts would be avoided, reduced, or compensated to such an extent that they are not expected to result in a considerable contribution to a cumulative impact."¹²³ Mr. Cashen explains how the DEIR's failure to comply with CEQA actually results in misidentifying significant cumulative impacts:

[The] rationale for [the DEIR's] argument ignores residual impacts, and thus, the overall purpose of cumulative impacts analyses. Just because a project has or will mitigate its impacts to a less than significant level does not mean there are (or will be) no residual impacts whatsoever. For example, residual impacts associated with the proposed Project include a net loss of 513 acres of Swainson's hawk foraging habitat. The point of cumulative impacts analysis is to determine whether impacts from various past, present and future projects that may have been individually deemed less than significant are, in fact, significant when looked at as a whole.¹²⁴

Therefore, the DEIR's cumulative impact analysis fails to comply with CEQA.

Decommissioning

As described above, the DEIR fails to provide a project description that complies with CEQA. With regard to the impacts of decommission on biological resources, Mr. Cashen shows that all of the biological resource mitigation measures incorporated into the DEIR pertain to activities conducted prior to, or during, construction of the Project; the DEIR fails to require any specific mitigation measures prior to, or during, decommissioning of the Project.¹²⁵

Except for a vague two-sentence statement regarding grading and restoration,¹²⁶ the DEIR provides virtually no discussion of impacts to biological resources during (and after) decommissioning of the Project. Mr. Cashen states that the DEIR also fails to establish any actual requirements for the decommissioning activities or any performance standards for vegetation communities, aquatic

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¹²³ Rancho Seco Solar II Project DEIR, May 2018, p. 4-11.

¹²⁴ Exhibit B: Cashen comments, p. 31.

¹²⁵ Exhibit B: Cashen comments, p. 31.

¹²⁶ Rancho Seco Solar II Project DEIR, May 2018, p. 2-19. 3935-014ncp



features, and habitat at the site after decommissioning of the Project. Since potentially significant impacts to biological resources due to decommissioning of the Project are not analyzed, they remain unmitigated.¹²⁷

The DEIR must be revised to disclose significant unmitigated impacts to biological resources during decommissioning.

3. The Mitigation Measures Proposed in the DEIR Fail to Adequately Mitigate Impacts on Biological Resources

An EIR must identify and describe any feasible measure that can be implemented to reduce or avoid each potentially significant environmental effect of the project.¹²⁸ The DEIR proposes a list of mitigation measures, concluding that they will reduce the Project's impacts to less than significant. As explained below, however, the mitigation measures proposed in the DEIR fail to properly mitigate the Project's potentially significant impacts with regard to a number of specialstatus species and habitat. With regard to some potentially significant impacts, the DEIR fails completely to provide mitigation.

Wetlands Mitigation

Mitigation Measure 3.3-1a

Mitigation Measure 3.3-1a relies on a drainage plan to mitigate impacts on some wetlands: "[a]lthough swales and drainages on the project site could be modified during construction of new access roads, a drainage plan would be developed to ensure there will be no net increase in surface flows exiting the project site as described in Section 3.8, "Hydrology and Water Quality."¹²⁹

However, Section 3.8 does not require a "drainage plan" and actually states that "installation of project facilities would not alter existing onsite drainage patterns and flowpaths sufficiently to alter the way that stormwater flows onto and off the site during major events."¹³⁰

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¹²⁷ Exhibit B: Cashen comments, p. 31.

¹²⁸ PRC §21100(b)(3), 14 CCR §15126.4(a)(1).

 ¹²⁹ Rancho Seco Solar II Project DEIR, May 2018, p. 3.3-27.
 ¹³⁰ Rancho Seco Solar II Project DEIR, May 2018, p. 3.8-12.

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By failing to require a drainage plan and incorporate performance standards and monitoring requirements, the DEIR fails to properly mitigate the impacts associated with altered hydrology to less than significant levels.	01-42 cont
Mitigation Measure 3.3-1b	T
Mr. Cashen explains that the compensatory mitigation package for Project impacts to wetlands is vague and not supported by substantial evidence, for several reasons:	
First, Mitigation Measure 3.3-1b states: "[t]he acreage and function of all wetlands that would be removed as a result of project implementation will be replaced and restored on a 'no-net-loss' basis." Mr. Cashen explains that, clearly, this would include wetlands that are permanently impacted (by fill) during construction of the Project." ¹³¹ However, it is unclear whether the DEIR also proposes compensation for wetlands "whose functions have been removed by implementation of the Project, but that still physically exist on the landscape (i.e., for indirect impacts to wetlands)." ¹³² As a result, Mr. Cashen explains, "the DEIR needs to clearly articulate how many acres of compensatory mitigation are being proposed under Mitigation Measure 3.3-1b." ¹³³	01-43
Second, Mitigation Measure 3.3-1b states:	
SMUD will compensate for the loss of wetlands (vernal pool, seasonal wetland, and seasonal swale) through the purchase of credits from the USACE-approved SMUD Nature Preserve Mitigation Bank (Exhibit 3.3-4) or by preserving, creating, or enhancing similar habitats at another USACE-approved mitigation area as determined during 404 permitting. Sufficient wetland mitigation credits are available from the bank, including 25 acres of created vernal pool credits.	

Mr. Cashen points out that "the statement that 25 acres of created vernal pool credits are available at SMUD's Mitigation Bank conflicts with information provided in: (a) the Regulatory In-lieu Fee and Bank Information Tracking System ("RIBITS"), (b) the most recent monitoring report prepared for SMUD's Mitigation

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¹³¹ Exhibit B: Cashen comments, p. 18-19.

¹³² Exhibit B: Cashen comments, p. 18-19.

¹³³ Exhibit B: Cashen comments, p. 18-19.

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Bank, and (c) an email from the U.S. Army Corps of Engineers to SMUD regarding the number of credits associated with the second credit release."¹³⁴ Therefore, SMUD lacks substantial evidence to conclude compensation for wetlands' loss can be achieved through credits.

Third, Mitigation Measure 3.3-1b concludes:

The minimum wetland compensation ratio to achieve no net loss of wetland functions and values for vernal pool, seasonal wetland, and seasonal swale habitats will be 1:1 (1 acre of wetland habitat credit for every 1 acre of permanent impact). Final ratios will be determined during the permitting process.

As Mr. Cashen points out, this statement suffers from two major flaws:

With regard to the proposed 1:1 ratio, "the DEIR fails to provide any scientific evidence or analysis that justifies a 1:1 mitigation ratio as being sufficient to reduce Project impacts to a less-than-significant level."¹³⁵ Mr. Cashen points out many scientific observations that show that a ratio greater than 1:1 is required. A number of factors should be taken into account when setting the ratio, including the mitigation strategy, time lag between impact and mitigation, uncertainty of success, scarcity of resources, distance between impacted sites and compensation sites and more. The DEIR fails to account for those factors. ¹³⁶

In addition, the measure seems to rely on the permitting process to set the final ratios. However, Mr. Cashen notes, "compliance with regulatory permits provides no assurances that Project impacts to jurisdictional waters (and riparian habitat) would be less-than-significant. To the contrary, numerous studies have demonstrated that many compensatory mitigation projects permitted under Sections 401 and 404 of the Clean Water Act are not achieving the goal of "no overall net loss" of wetland acres and functions."¹³⁷

The DEIR has no basis for concluding a 1:1 mitigation ratio would result in no net loss of wetland functions and values because SMUD did not identify the full

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¹³⁴ Exhibit B: Cashen comments, p. 19. Footnotes omitted.

¹³⁵ Exhibit B: Cashen comments, p. 19.

¹³⁶ Exhibit B: Cashen comments, p. 20-21.

¹³⁷ Exhibit B: Cashen comments, p. 21-22.

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suite of functions and values that would be impacted by the Project and did not account for all the relevant factors in setting the ratios.	O1-43
Mitigation Measure 3.3-1c	T
"Mitigation Measure 3.3-1c suffers the same flaws as those discussed above for Mitigation Measure 3.3-1b: (1) the total amount of compensation being proposed for impacts to non-wetland waters is ambiguous; (2) the DEIR fails to establish the functions and values of the non-wetland waters that would be impacted by the Project; (3) the DEIR fails to justify its conclusion that a 1:1 mitigation ratio would reduce impacts to a less than significant level; (4) the DEIR fails to establish the timing of the compensatory mitigation; and (5) the DEIR fails to establish performance standards and monitoring requirements for the mitigation." ¹³⁸	01-44
In addition, explains Mr. Cashen, Mitigation Measure 3.3-1c defers formulation of the restoration plan, including fundamental aspects of that plan. "Mitigation monitoring is critical to complex mitigation measures, such as restoration of aquatic habitats." By failing to set the details for restoration and monitoring, the mitigation measure does not perform its function under CEQA and does not mitigate Project impacts to less than significant levels. ¹³⁹	
Vernal Pool Branchiopod Mitigation	
The DEIR proposes the following compensatory mitigation ratios for Project impacts to vernal pool branchiopod habitat:	Ţ
Credit ratios for direct branchiopod habitat loss will be 1:1 for created vernal pool branchiopod habitat (1 acre created for every 1 acre affected) and 2:1 for preserved habitat (2 acres preserved for every 1 acre directly affected). Credit ratios for indirect habitat impacts will be a minimum of 1:1 (1 acre created for every 1 acre indirectly affected). ¹⁴⁰	01-45
Mr. Cashen notes that "the DEIR fails to provide any analysis to justify these ratios and their ability to reduce Project impacts to less than significant levels. Furthermore, there is no explanation for why the Project's indirect impacts would	
 ¹³⁸ Exhibit B: Cashen comments, p. 22. ¹³⁹ Exhibit B: Cashen comments, p. 22-23. ¹⁴⁰ Rancho Seco Solar II Project DEIR, May 2018, p. 3.3-35. ^{13935-014acp} 	

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require one-half the mitigation of direct impacts—even though the DEIR acknowledges the indirect impacts could eliminate branchiopod populations from aquatic habitats that remain at the Project site (i.e., the end result is the same as direct impacts)."¹⁴¹

California Tiger Salamander Mitigation

Despite the fact that direct mortality of California tiger salamanders from Project's activities such as construction is most likely to occur at night, when they are aboveground, the DEIR allows Project construction to occur at night. Mr. Cashen points out that the South Sacramento Habitat Conservation Plan (SSHCP) incorporates mitigation measures to minimize impacts from night time construction, and that such measures were applied to the Rancho Seco PV Solar Project. Proper mitigation measures should be incorporated as for this Project in order to minimize the potential for "take" of California tiger salamanders.¹⁴²

Burrowing Owl Mitigation

The DEIR proposes to mitigate the loss of burrowing owls by monitoring during construction, awareness training, and purchase of California tiger salamander habitat credits at the SMUD Nature Preserve Mitigation Bank (the SMUD Nature Preserve Mitigation Bank is not authorized to sell credits for impacts to burrowing owls).¹⁴³ Mr. Cashen notes this mitigation measure is ineffective, "because the SMUD Mitigation Bank does not support breeding burrowing owls. Therefore, if a pair of breeding owls is displaced from the Project site, the Mitigation Bank would not mitigate the impact because there is no replacement breeding habitat at the bank."¹⁴⁴

Mitigation Measure 3.3-8c states: "[i]f active burrowing owl nests are found on the project site and these nest sites are lost because of project implementation, SMUD will mitigate the loss through preservation of other suitable breeding habitat in Sacramento County, which may include preservation at the SMUD Nature Preserve Mitigation Bank and the potential mitigation lands adjacent to the

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¹⁴¹ Exhibit B: Cashen comments, p. 24.

¹⁴² Exhibit B: Cashen comments, p. 25.

¹⁴³ Rancho Seco Solar II Project DEIR, May 2018.

¹⁴⁴ Exhibit B: Cashen comments, p. 26.

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project site, at a minimum ratio of 1:1." Mr. Cashen notes this mitigation measure is too vague and therefore ineffective, as it lacks a definition of how SMUD determines if sites are "lost."¹⁴⁵

Mitigation Measure 3.3-8c further states:

SMUD will develop a mitigation and monitoring plan for the compensatory mitigation areas if mitigation is not within the SMUD Nature Preserve Mitigation Bank or other bank that already has a mitigation and monitoring plan for burrowing owl. The mitigation and monitoring plan will include detailed information on the habitats present within the preservation areas, the long-term management and monitoring of these habitats, legal protection for the preservation areas (e.g., conservation easement, declaration of restrictions), and funding mechanism information (e.g., endowment).

Mr. Cashen explains that the DEIR's mitigation constitutes improper deferral of mitigation, especially because the DEIR fails to establish any performance standards for burrowing owls at the compensatory mitigation sites.¹⁴⁶

Mitigation for Nesting Birds

The DEIR acknowledges that the Project has the potential to affect a large number of occupied nests of various species and that this would be a potentially significant impact. It concludes this impact will be mitigated by a number of mitigation measures.¹⁴⁷

Mr. Cashen shows a number of flaws in the proposed mitigation measures:

First, the mitigation measure states that if an active nest is found on the site, a buffer will be established around it to avoid disturbance or destruction of the nest until the end of the breeding season. A biologist would be responsible for determining the size of any nest buffers. As Mr. Cashen explains, this is not a reliable mitigation strategy because biologists are often pressured into making decisions based on the contractor's needs. Moreover, most biologists lack the

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¹⁴⁵ Exhibit B: Cashen comments, p. 26.

¹⁴⁶ Exhibit B: Cashen comments, p. 27.

¹⁴⁷ Rancho Seco Solar II Project DEIR, May 2018, p. 3.3-53 3935-014acp



required vast knowledge regarding the various factors that impact the required buffer size, and no minimal qualifications are established for them. As a result, this measure is too vague and may not be effective. The DEIR must establish: (a) the minimum permissible size for nest buffers, or (b) a mechanism that ensures the buffer size selected by the biologist is sufficient to prevent impacts to the nest.¹⁴⁸

In addition, the surveys required under the DEIR are not sufficient to ensure construction noise would not impact nesting songbirds, since for most songbirds they are limited to 100-foot radius around the site. The Project construction at this radius would generate noise at level which far exceeds those that have been shown to have adverse effects on birds and other wildlife (84 dBA at a distance of 100 feet, and a maximum noise level of 88 dBA at 100 feet). To avoid impacts associated with construction noise, Mr. Cashen points out that surveys for nesting birds must include all areas offsite that would be exposed to elevated noise levels.¹⁴⁹

Impacts to Swainson's Hawk Foraging Habitat

The DEIR acknowledges the presence of Swainson's hawks foraging habitat on and around the Project's site, and that "[l]oss of active Swainson's hawk nests or displacement of individuals or loss of reproductive success for the local population would be a significant impact."¹⁵⁰ However, it concludes that "[b]ecause the SMUD Nature Preserve Mitigation Bank contains over 1,060 acres of annual grassland habitat, this habitat is sufficient to compensate for the loss of 513 acres of annual grassland habitat from the project site and could be accomplished with compensation for upland habitat for California tiger salamander."¹⁵¹

As explained by Mr. Cashen, there are three main problems with the DEIR's conclusion:

First, the DEIR's claim regarding the availability of credits at SMUD Nature Preserve Mitigation Bank conflicts with information provided in: (a) the Regulatory In-lieu Fee and Bank Information Tracking

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¹⁴⁸ Exhibit B: Cashen comments, p. 27.

¹⁴⁹ Exhibit B: Cashen comments, p. 27-28

¹⁵⁰ Rancho Seco Solar II Project DEIR, May 2018, p. 3.3-50.

¹⁵¹ Rancho Seco Solar II Project DEIR, May 2018, p. 3.3-51. 3935-014acp



System ("RIBITS"), and (b) the most recent monitoring report prepared for SMUD's Mitigation Bank.

Second, the deduction of credits from SMUD's Mitigation Bank does not compensate for the loss of 513 acres of annual grassland habitat from the Project site because foraging habitat at the Mitigation Bank is already part of the environmental baseline for the pair that nests in the potential mitigation area. Thus, the mitigation strategy proposed in the DEIR would result in the net loss of 513 acres of foraging habitat available to that pair. As the DEIR acknowledges, this net loss of habitat could result in displacement of the nesting pair, reduction in reproductive potential, or decreased survival rates.

Third, not all foraging habitat provides equal value to Swainson's hawks. Although Swainson's hawks may travel many miles to forage, survival and reproductive success are strongly associated with core-habitat-use areas (those land use areas that are used most extensively by nesting hawks as foraging habitat).¹⁵²

As a result, explains Mr. Cashen, without assessing the Project's effect on core-habitat-use areas, SMUD has no basis for concluding that the deduction of credits from SMUD's Mitigation Bank would mitigate impacts to Swainson's hawk foraging habitat.

V. THE PROJECT FAILS TO COMPLY WITH THE REQUIREMENTS FOR A CLEAN WATER ACT SECTION 404 PERMIT

According to the DEIR, approval of the Project will require a permit from the U.S. Army Corps of Engineers (USACE) for compliance with Section 404 of the Clean Water Act ("CWA") for discharge of fill to waters of the U.S.¹⁵³ Section 404(b)(1) of the Clean Water Act and its implementing regulations prohibit the discharge of dredge or fill materials into waters of the U.S. if there is a "practicable alternative to the proposed discharge that would have less impact on the aquatic ecosystem, provided that the alternative does not have other significant

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 ¹⁵² Exhibit B: Cashen comments, p. 27-28, Footnotes omitted
 ¹⁵³ Rancho Seco Solar II Project DEIR, May 2018, p. ES-3.
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environmental consequences."¹⁵⁴ The DEIR clearly does not establish that the proposed Project will be the least environmentally damaging Project alternative.

First, the discussion in the alternatives section shows that there is a "least environmentally damaging alternative" – by reducing the size of the Project so it will avoid wetlands, its environmental impacts can be reduced.

Moreover, Mr. Cashen identifies a less environmentally damaging alternative that will significantly reduce the Project's impacts on wetlands. Mr. Cashen explains in his comments that "many of the linear wetlands in the northern and western portions of the Project site flow offsite into vineyards, where they appear to terminate. Therefore, preserving those features has no added benefit beyond whatever benefits are being preserved on the Project site itself."¹⁵⁵ However, "[1]inear wetlands in other portions of the Project site flow offsite into natural lands that contain additional aquatic features."¹⁵⁶

There is, therefore, an alternative that can achieve the goal of minimizing the Project's impacts while at the same time be practicable: "an alternative designed to reduce impacts on wetlands should focus on portions of the Project site where wetlands features are connected to natural lands offsite."¹⁶⁷ The DEIR makes no attempt to adopt such strategy or disclose the rationale for why specific wetlands were spared under the "Wetland Reduction Alternative." To adhere to the CWA requirements, the Project must propose an alternative that takes into account the wetlands specific characteristics and values and avoids as much as possible the most valuable ones, to achieve the least environmentally damaging alternative.

VI. CONCLUSION

The DEIR is inadequate as an environmental document because it lacks a legally adequate project description and alternatives analysis, as required by CEQA. The DEIR fails to properly disclose, analyze and mitigate the Project's impacts on biological resources, air quality and public health and utilities and service systems. In addition, the Project fails to comply with the requirements for a Clean Water Act Section 404 Permit. SMUD cannot certify the EIR or approve the

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¹⁵⁴ 40 C.F.R. §§ 230.10(a), 230.3(q).

¹⁵⁵ Exhibit B: Cashen comments, p. 2

¹⁵⁶ Exhibit B: Cashen comments, p. 30.

¹⁶⁷ Exhibit B: Cashen comments, p. 30.

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Project until it prepares a revised DEIR that resolves these issues and complies with CEQA.

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Thank you for your consideration of these comments.

Sincerely,

Tanya A. Gulesserian Nirit Lotau M/

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Attachments

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