



July 20, 2017

MEMO TO: Stanislaus County Planning Commission
FROM: Department of Planning and Community Development
SUBJECT: **TIME EXTENSION FOR USE PERMIT APPLICATION NO. 2010-03 – FINK ROAD SOLAR FARM**

PROJECT DESCRIPTION

This is a request for a Time Extension and modification of the Conditions of Approval to extend the project's development schedule by five years or until April 30, 2022, to allow the establishment of an 80-100 megawatts (MW) solar photovoltaic (PV) energy facility on 800± acres of a 1,687± acre site in the A-2-40 (General Agriculture) zoning district. The project site is located at 4401 and 4881 Fink Road, west of Interstate 5, in the Newman area. The project was approved on April 19, 2012, following a March 1, 2017, continuance, allowing for construction in five phases with a sixth alternative phase. (See Attachment 2 – *Planning Commission Memo dated, April 19, 2012.*)

DISCUSSION

The 1,687± acre property on which 800± acres will be utilized to construct and operate an 80-100 MW solar farm is owned by Stanislaus County and overseen by the Department of Environmental Resources. In October 2009, Stanislaus County posted a Request For Proposal (RFP) for the establishment of a solar facility that would demonstrate support for local renewable energy projects and preserve mitigation land belonging to the Fink Road Landfill. JKB Development was chosen from a pool of applicants and awarded a 12-Month Exclusive Right-to-Negotiate Agreement for a Long-Term Farming and Potential Solar Farm Lease with the County on December 8, 2009. Additional 12-month time extensions were granted in 2010 and 2011. In 2013, a Land Option and Lease Agreement for a long-term Solar and Farming Lease was granted to Golden Hills Solar, a limited liability company formed by JKB Development. This Lease was modified and extended until April 30, 2022, by the Board of Supervisors on May 16, 2017.

Since 2010, the Planning Commission has approved four large scale solar facilities; however, only one facility has been completely constructed and one facility partially constructed. Large scale solar facilities are unique in that: 1) the developer is required to conduct multiple studies and meet requirements set by the power purchaser and approved by the California Public Utilities Commission before the developer may proceed with construction of the facility; and 2) solar specific conditions are needed to insure that suitable time is allowed for development.

Use Permits typically require development to occur within eighteen months of the date of final approval, and, per the Zoning Ordinance, the time allowed for development may be extended for one year upon application and prior to expiration of the permit. Recognizing the complexities of establishing a solar facility, the project's Condition of Approval No. 1 allowed for development to occur anytime within five years of Use Permit approval. As such, the expiration date for this Use Permit was April 19, 2017. The time extension request from Golden Hills Solar dated April 14, 2017, (*See Attachment 1*) requests a one year time extension; however, Stanislaus County, as the property owner, is requesting a modification to Condition of Approval No. 1 to allow for a total additional time of five years. The additional time will synchronize the County's lease agreement expiration date with the Use Permit expiration date. Consequently, staff recommends that Condition of Approval No. 1 be modified as follows, with new wording in **bold** and deleted wording with a line through it:

1. Use(s) shall be conducted as described in the application and supporting information (including the plot plan) as approved by the Planning Commission and/or Board of Supervisors and in accordance with other laws and ordinances. Construction of the initial phase of this project shall be allowed to begin ~~within five (5) years of project approval~~ **no later than April 30, 2022**, provided it can be demonstrated that efforts to secure a Power Purchase Agreement and necessary building permits have been on-going.

This request was circulated to responsible agencies, including those agencies that requested Conditions of Approval be placed on the approved project. Besides the County's request to amend Condition of Approval No. 1, no amended or additional Conditions of Approval have been requested.

ENVIRONMENTAL REVIEW

Under California law, a request for time extension of a project that previously was subject to CEQA review may be exempt from CEQA or may be evaluated under the standard triggering subsequent or supplemental CEQA review (under Public Resources Code Section 21166 and CEQA Guidelines Section 15162). A Mitigated Negative Declaration was adopted for this project on April 19, 2012. In order to trigger additional review when the project was previously approved with a Mitigated Negative Declaration, a significant environmental effect must be identified. No significant environmental effects were identified by responding agencies and parties.

RECOMMENDATION

1. Find there is no evidence on the record of any significant changes involving this project since the time it was originally approved, which could trigger a significant environmental effect.
2. Approve the modification to Condition of Approval No. 1 as recommended by Staff, allowing for project construction to begin no later than April 30, 2022, with all other approved Conditions of Approval and Mitigation Measures remaining in effect.

TE for UP 2010-03
Planning Commission Memo
July 20, 2017
Page 3

Contact Person: Rachel Wyse, Senior Planner, (209) 525-6330

Attachments:

Attachment 1 - Applicant's Time Extension Request received, April 14, 2017
Attachment 2 - Planning Commission Memo dated, April 19, 2012
Attachment 3 - Planning Commission Meeting Minutes, April 19, 2012

[I:\Planning\Staff Reports\UP\2010\UP 2010-03 - Fink Road Solar Farm\TIME EXTENSION\Planning Commission\July 20, 2017\PC Memo.doc](#)

Golden Hills Solar, LLC

Rich Borba

Director of Business Development

C/O JKB Energy
941 E. Monte Vista Ave
Turlock, CA 95382
Phone: 209-668-5303
rich@jkbenergy.com

Ms. Wyse

Stanislaus County
Department of Planning
1010 10th Street, Suite 3400
Modesto, CA 95354

Friday, April 14, 2017

RE: CUP2010-03 – Fink Road Solar Farm

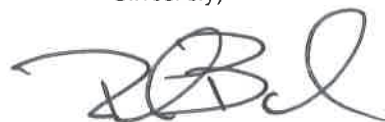
Dear Ms. Wyse,

This correspondence shall serve as a request for a one year extension to Conditional Use Permit CUP 2010-03, currently set to expire on or about April 19, 2017. Since approximately 2012, Golden Hills Solar, LLC and its predecessor in interest JKB Development, Inc. have been pursuing various agreements for the purchase of energy that would be generated by the Solar Energy System that is purpose of the Conditional Use Permit. Due to substantial market fluctuations and difficulties working with utility companies, we continue to experience delays. These market conditions have made this endeavor challenging in the originally estimated time frame. Securing an off taker of the solar energy to be generated by the project has taken longer than we had hoped, but we are currently in process of finalizing an agreement for the project.

In light of these encouraging developments Golden Hills Solar, LLC and JKB Energy formally request granting an extension for 1 year of the above CUP.

Please find attached a check for \$523 for the extension and call me if you have any questions.

Sincerely,



Rich Borba
Golden Hills Solar & JKB Energy



April 19, 2012

MEMO TO: Stanislaus County Planning Commission

FROM: Department of Planning & Community Development

SUBJECT: USE PERMIT APPLICATION NO. 2010-03 – FINK ROAD SOLAR FARM

Planning staff, the applicant, AECOM, and the California Department of Fish and Game (DFG) conferenced on February 29, 2012, regarding a DFG letter dated February 23, 2012, (Attachment C) which raised issues with the environmental document. Concerns raised by DFG included unclear language within the Biological Resources Section of the Initial Study regarding existing grasslands and the lack of proper surveys and feasible mitigation measures for Western Burrowing Owl, San Joaquin Kit Fox, and Swainson's Hawk.

The 1,687 acre project site is comprised of almond orchards, dry crops, grassland, two (2) dwellings, and an agricultural storage building. All solar panels, utilities, maintenance buildings, and appurtenant structures will only be constructed on 800 acres of the project site that is continuously farmed and/or planted in orchard. None of the existing grasslands will be utilized as a part of this project. Furthermore, the potential for Swainson's hawk to nest on-site is considered remote due to the lack of suitable habitat, but the project site may provide foraging habitat for individuals nesting nearby (i.e. within 5 miles). Implementation of the modified Mitigation Measure BIO-1 would reduce these impacts to a less than significant level as well as provide a means to identify any Swainson's hawk nesting within a five mile radius.

Attached please find Mitigation Measure BIO-1 as revised by AECOM and Planning staff based on comments submitted by DFG. This mitigation measure has been revised by the addition of Swainson's hawk, preconstruction surveys, and a Swainson's Hawk Monitoring and Habitat Mitigation Plan if the hawks are identified to nest within 0.5 to 2 miles of project construction activities. When a mitigation measure has been revised after the environmental review process, the Planning Commission must find that the revised mitigation measure is equivalent to or more effective than the previous mitigation measure circulated with the Initial Study and that it, in itself, will not cause any potentially significant effect on the environment. Staff feels that this finding can be made. Leo J. Edson, Senior Wildlife Biologist with AECOM reviewed the finding and submitted the following key points:

- Burrowing owl survey intensity is greater and surveys would be conducted over a longer period of time, which would increase the potential for detection, and protection, of active burrows. Protective buffers from nesting sites are equal or greater in distance to those proposed in the Initial Study.
- The changes to the kit fox and valley elderberry longhorn beetle part of the measure are mostly editorial; the revised measure would provide an equivalent level of protection for both species as the previous mitigation measure.
- The previous mitigation measure did not address Swainson's hawk. The revised measure is more effective in that it includes mitigation that would reduce the potential for impacts to Swainson's hawks nesting within 0.5-miles of the proposed area of disturbance.

ATTACHMENT 2

Staff notified DFG of the April 19, 2012, Planning Commission hearing and forwarded the revised mitigation measure to DFG on March 21, 2012. No response has been received to date.

Please refer to Attachment A of this memo for the existing language and proposed revisions to Mitigation Measure BIO-1.

RECOMMENDATION

Staff recommends the Planning Commission approve Use Permit Application No. 2010-03 – Fink Road Solar Farm, subject to the Findings and Actions outlined in Exhibit A of the March 1, 2012, Planning Commission Staff Report along with revised Mitigation Measure Bio-1 as shown in Attachment A and additional Finding 3 E as listed below:

3. Find That:

- E. Revised Mitigation Measure No. 4 (Condition of Approval No. 32) is equivalent to or more effective than the previous Mitigation Measure No. 4 circulated with the Initial Study and that it, in itself, will not cause any potentially significant effect on the environment.

The March 1, 2012, Planning Commission Staff Report is available for viewing on our website @ <http://www.stancounty.com/planning/pl/agenda-min-2012.shtm>.

- Attachments: A - Existing Language and Proposed Revisions to Mitigation Measure BIO-1
B - Revised Mitigation Monitoring Plan
C - March 1, 2012, Planning Commission Continuance Memo with Attachment

Attachment A

- ▶ **Original: Mitigation Measure BIO-1.** Avoid and Minimize Impacts to Western Burrowing Owl, Valley Elderberry Longhorn Beetle, and San Joaquin Kit Fox.
 - To avoid and minimize impacts to western burrowing owl, a protocol-level preconstruction burrowing owl survey shall be conducted covering all areas subject to disturbance, and a 250 buffer area extending beyond areas subject to disturbance no fewer than 14 days and no more than 30 days prior to the start of construction according to methods approved by California Department of Fish and Game (DFG) (DFG 1995). Appropriate avoidance measures shall be determined in consultation with DFG in the event an active burrow is located in an area subject to disturbance, or within the 250 foot buffer area. Burrows occupied by burrowing owls shall not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist verifies through non-invasive methods that either: (1) the birds have not begun egg-laying and incubation; or (2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.
 - To avoid and minimize impacts to San Joaquin kit fox, U.S. Fish and Wildlife Service (USFWS) approved preconstruction protocol-level surveys (USFWS 1999) shall be conducted no fewer than 14 days and no more than 30 days prior to the onset of any ground-disturbing activity. The survey area shall include all areas subject to disturbance, and a 250 buffer area extending beyond areas subject to disturbance. In the event that an active San Joaquin kit fox den is detected during preconstruction surveys, DFG and USFWS shall be contacted immediately and no project activity shall begin until appropriate avoidance measure have been implemented, and DFG and USFWS have provided written authorization that project construction may proceed. In addition, the proposed fencing along the southern boundary of the project site shall be designed to be wildlife friendly by raising the bottom of the fence six inches above the ground to allow San Joaquin Kit Fox to move into and out of the project site
 - To avoid and minimize impact to valley elderberry longhorn beetle, prior to construction, a survey shall be conducted for elderberry shrubs. The survey area shall include all areas subject to disturbance, and a 250 buffer area extending beyond areas subject to disturbance. In the event that any elderberry shrubs are found, the project applicant shall determine if the shrubs can be completely avoided. Complete avoidance would require no ground disturbance with 20 feet of the shrub. If complete avoidance is not feasible, the project applicant shall comply with USFWS compensation guidelines for valley elderberry longhorn beetle (USFWS 1999).

New language is reflected in **bold** text and deletions are reflected with ~~strikeout~~ text.

- ▶ **Proposed: Mitigation Measure BIO-1.** Avoid and Minimize Impacts to Western Burrowing Owl, Valley Elderberry Longhorn Beetle, ~~and~~ San Joaquin Kit Fox, **and Swainson's Hawk.**
 - To avoid and minimize impacts to western burrowing owl, **the applicant shall conduct burrowing owl surveys of the areas proposed for disturbance by the project (as shown in Exhibit 3-1 of the IS/MND) following DFG protocol (2012), consisting of four survey visits: 1) at least one site visit between 15 February and 15 April, and 2) a minimum of three survey visits, at least three weeks apart, between 15 April and 15 July, with at least one visit after 15 June. If project construction begins prior to the completion of these surveys, then a modified survey approach shall be developed and approved by the County in consultation with DFG.** ~~a~~ A protocol-level preconstruction burrowing owl survey shall be conducted covering all areas subject

to disturbance, and a 250-foot buffer area extending beyond areas subject to disturbance ~~no fewer than 14 days and no more than 30 days prior to the start of construction according to methods approved by California Department of Fish and Game (DFG) (DFG 1995)~~ **within 24 hours prior to ground disturbance. Buffers around nesting sites shall be clearly marked during all construction activities and shall conform to the requirements in the following table:**

Location	Time of Year	Avoidance Buffer
Nesting sites	April 1-Aug 15	1000 feet
Nesting sites	Aug 16-Oct 15	500 feet
Nesting sites	Oct 16-Mar 31	250 feet

If occupied burrows are found within the proposed areas of disturbance and eviction is necessary to avoid direct burrowing owl mortality, the burrow eviction methods shall follow those prescribed in DFG 2012. Burrows occupied by burrowing owls shall not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist verifies through one week of non-invasive burrow monitoring (no scoping) that either: (1) the birds have not begun egg-laying and incubation; or (2) the juveniles from the occupied burrows are foraging independently and are capable of independent survival.

- To avoid and minimize impacts to San Joaquin kit fox, **the applicant shall implement the January 2011 U.S. Fish and Wildlife Service (USFWS) “Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to Or During Ground Disturbance,” approved for the proposed disturbance areas shown in Exhibit 3-1 of the IS/MND including but not limited to the preconstruction protocol-level surveys (USFWS 1999) which** shall be conducted no fewer than 14 days and no more than 30 days prior to the onset of any ground-disturbing activity. The survey area shall include all areas subject to disturbance, and a 250-foot buffer area extending beyond areas subject to disturbance. In the event that an active San Joaquin kit fox den is detected during preconstruction surveys, DFG and USFWS shall be contacted immediately and no project activity shall begin until appropriate avoidance measures have been implemented, and DFG and USFWS have provided written authorization that project construction may proceed. In addition, the proposed fencing along the southern boundary of the project site shall be designed to be wildlife friendly by raising the bottom of the fence six inches above the ground to allow San Joaquin Kit Fox to move into and out of the project site.
- To avoid and minimize impact to valley elderberry longhorn beetle, prior to construction, **the applicant shall conduct** a survey ~~shall be conducted~~ for elderberry shrubs. The survey area shall include all areas subject to disturbance **(as shown in Exhibit 3-1 of the IS/MND)**, and a 250-foot buffer area extending beyond areas subject to disturbance. In the event that any elderberry shrubs are found, the project applicant shall determine if the shrubs can be completely avoided. Complete avoidance would require no ground disturbance with 20 feet of the shrub. If complete avoidance is not feasible, the project

applicant shall comply with USFWS compensation guidelines for valley elderberry longhorn beetle (USFWS 1999).

To avoid and minimize impacts to Swainson's hawk within all areas subject to disturbance and within 0.5 mile of the proposed areas of disturbance shown in Exhibit 3-1 of the IS/MND, the applicant shall conduct surveys using methods consistent with current DFG guidance (DFG 1994) and the "Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley" (Swainson's Hawk Technical Advisory Committee May 31, 2000). To avoid and minimize impacts to Swainson's hawks, no intensive new disturbances (e.g. heavy equipment operation associated with construction, use of cranes or draglines, new rock crushing activities) or other project related activities which may cause nest abandonment or forced fledging, shall be initiated within 0.5 mile (buffer zone) of an active nest between March 1 - September 15. No trees known to be used by Swainson's hawk for nesting shall be removed.

Stanislaus County

Planning and Community Development

1010 10th Street, Suite 3400
Modesto, CA 95354

Phone: (209) 525-6330
Fax: (209) 525-5911

Mitigation Monitoring Plan

Adapted from State CEQA Guidelines Section 15097 Final Text, October 26, 1998

April 6, 2012

1. Project title and location: Use Permit Application No. 2010-03 – Fink Road Solar Farm

4401 & 4881 Fink Road, west of Interstate 5, in the Newman/Crows Landing area. APN: 025-012-016, 025-012-017, 025-012-031, 025-012-033, 027-033-012.
2. Project Applicant name and address: JKB Energy
941 E. Monte Vista Avenue
Turlock, CA 95381
3. Person Responsible for Implementing Mitigation Program (Applicant Representative): Scott Belyea – JKB Energy
4. Contact person at County: Rachel Wyse, Assistant Planner (209) 525-6330

ENVIRONMENTAL COMMITMENTS:

The following lists all of the environmental commitments that the project applicant has committed to implementing as part of the project and that the County will adopt as conditions of approval.

- The project applicant will provide basic information to ensure that a reliable source of water can serve the project in normal and drought years during the project's life. The project applicant will prepare a Water Demand and Supply Plan that will document a reliable source of water.
- The project applicant will prepare a Decommissioning Plan that will ensure that the project site is restored to preproject conditions, including on-site surface waters, at the end of the project's life.
- In addition to the special-status wildlife surveys set forth in Mitigation Measure BIO-1, the project applicant will conduct surveys for Swainson's Hawk, loggerhead shrike, tricolored blackbird, hoary bat, western spadefoot toad, and San Joaquin whipsnake. The project applicant will prepare a Wildlife Survey Report that documents the results of the wildlife surveys and submit the report to the County prior to construction. The survey report shall include the following information:
 - an identification of the biologist(s) conducting the surveys and their qualifications;
 - the date(s) of the wildlife surveys;
 - the times of day the surveys were conducted;
 - the locations on the project site and buffer areas that were surveyed; and
 - any other information necessary for the County to ensure compliance with state and federal laws and regulations.
- The project applicant will avoid and minimize impacts on biological resources during project construction and operation. A qualified biologist will be present during the initial site preparation and construction to ensure that significant impacts to biological resources are appropriately

ATTACHMENT B

mitigated. All employees will be provided with information regarding all protected natural features and the artificial drainage system, explaining the area's biogeochemical, water quality, and flood conveyance functions and values, and outlining activities that are prohibited to adequately protect the channelized drainage features.

- Consistent with Mitigation Measure HM-2, the project applicant will prepare a Phase II Environmental Site Assessment prior to construction to determine whether toxic materials could be present in the soil at the project site.
- Consistent with Mitigation Measure HM-3, the project applicant will disclose the presence of any abandoned oil and gas exploration well on the project site, and impose a buffer zone to ensure that impacts to workers will be minimized.
- The project applicant will implement all other Mitigation Measures set forth in this document as part of the project.

MITIGATION MEASURES AND MONITORING PROGRAM:

List all Mitigation Measures by topic as identified in the Mitigated Negative Declaration and complete the form for each measure.

III. AIR QUALITY

No. 1 Mitigation Measure AQ-1: Implement all feasible fugitive dust control requirements of the San Joaquin Valley Air Pollution Control District (SJVAPCD), Regulation VIII. The following measures shall be implemented to reduce particulate matter less than or equal to 10 microns in diameter (PM₁₀) exhaust emissions and further reduce the already less-than-significant impacts associated with reactive organic gas (ROG) and oxides of nitrogen (NO_x) emissions:

- Provide commercial electric power to the project site in adequate capacity to avoid or minimize the use of portable electric generators and any other equipment.
- Where feasible, substitute electric-powered equipment for diesel engine driven equipment, or implement the use of diesel particulate traps.
- When not in use, avoid idling of on-site equipment.
- Where feasible, avoid operation of multiple pieces of heavy duty equipment.
- Require contractors to use the best available emission reduction and economically feasible technology on an established percentage of the equipment fleet. It is anticipated that in the near future PM₁₀ control equipment will be available. The SJVAPCD shall be consulted with on this process. This requirement shall be included in construction bid specifications.

Who Implements the Measure:	Applicant
When should the measure be implemented:	During Construction
When should it be completed:	When construction is completed
Who verifies compliance:	San Joaquin Valley Air Pollution Control District
Other Responsible Agencies:	Stanislaus County Public Works; Stanislaus County Planning Department

No. 2 Mitigation Measure AQ-2: Comply with SJVAPCD's Regulation VIII-Fugitive Dust Prohibitions and implement the following applicable control measures, as required by law:

- The project applicant/operator shall submit a Dust Control Plan to the Air Pollution Control Officer (APCO) prior to the start of any construction activity on any site that will include 5 acres or more of disturbed surface area for non-residential development, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials. Construction activities shall not commence until the APCO has approved or conditionally approved the Dust Control Plan. An owner/operator shall provide written notification to the APCO within 10 days prior to the commencement of earthmoving activities via fax or mail. The requirement to submit a dust control plan shall apply to all construction related activities conducted at the project site.
- The project applicant/operator shall submit a construction notification form to the APCO at least 48 hours prior to the start of any construction activity on the project site that includes greater than one acre of disturbed surface area.

Who Implements the Measure:	Applicant
When should the measure be implemented:	Prior to construction and/or grading
When should it be completed:	Prior to construction of each Phase
Who verifies compliance:	San Joaquin Valley Air Pollution Control District
Other Responsible Agencies:	Stanislaus County Public Works Department, Stanislaus County Planning Department

No. 3 Mitigation Measure AQ-3: Implement SJVAPCD-recommended enhanced and additional control measures to further reduce fugitive PM₁₀ dust emissions from public roadways.

- Install sandbags or other erosion control measures to prevent silt runoff to public roadways from adjacent project areas with a slope greater than 1% in accordance the project's Stormwater Pollution Prevention Plan (SWPPP), which conforms with the required elements of the General Permit No. CAS000002 issued by the State of California, State Water Resources Control Board.
- The area encompassing the San Joaquin Valley Air Basin (SJVAB) boundary is also classified as nonattainment for particulate matter less than or equal to 2.5 microns in diameter (PM^{2.5}). The SJVAPCD approach for achieving attainment of the PM_{2.5} standard is has two components. The first component is that the existing PM₁₀ reduction strategies will reduce the fugitive component of PM_{2.5} emissions within the SJVAPCD. The second component is to address the indirect formation of PM_{2.5}. As with ozone NO_x is a precursor of PM_{2.5} so the district reduction strategies for the reduction of NO_x throughout the basin will also reduce the formation of PM_{2.5}. In addition since the emissions estimate for PM₁₀ was compared to PM_{2.5} thresholds; if PM₁₀ emissions estimates are below the PM_{2.5} thresholds then PM_{2.5} must also be below the threshold. The proposed project shall be required to comply with the SJVAPCD's Regulation VIII (SJVAPCD 2009) control measures for construction emissions of PM₁₀. One of these control measures includes the use of water with all "land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities" for fugitive dust suppression. Compliance with SJVAPCD Regulation VIII will further reduce emissions.

Who Implements the Measure:	Applicant
When should the measure be implemented:	Prior to construction and/or grading
When should it be completed:	Prior to and during construction of each Phase
Who verifies compliance:	San Joaquin Valley Air Pollution Control District
Other Responsible Agencies:	Stanislaus County Public Works Department, Stanislaus County Planning Department

IV. BIOLOGICAL RESOURCES

No. 4 **REVISED** Mitigation Measure BIO-1: Avoid and Minimize Impacts to Western Burrowing Owl, Valley Elderberry Longhorn Beetle, San Joaquin Kit Fox, and Swainson's Hawk.

- To avoid and minimize impacts to western burrowing owl, the applicant shall conduct burrowing owl surveys of the areas proposed for disturbance by the project (as shown in Exhibit 3-1 of the IS/MND) following DFG protocol (2012), consisting of four survey visits: 1) at least one site visit between 15 February and 15 April, and 2) a minimum of three survey visits, at least three weeks apart, between 15 April and 15 July, with at least one visit after 15 June. If project construction begins prior to the completion of these surveys, then a modified survey approach shall be developed and approved by the County in consultation with DFG. A protocol-level preconstruction burrowing owl survey shall be conducted covering all areas subject to disturbance, and a 250-foot buffer area extending beyond areas subject to disturbance within 24 hours prior to ground disturbance. Buffers around nesting sites shall be clearly marked during all construction activities and shall conform to the requirements in the following table:

Location	Time of Year	Avoidance Buffer
Nesting sites	April 1-Aug 15	1000 feet
Nesting sites	Aug 16-Oct 15	500 feet
Nesting sites	Oct 16-Mar 31	250 feet

If occupied burrows are found within the proposed areas of disturbance and eviction is necessary to avoid direct burrowing owl mortality, the burrow eviction methods shall follow those prescribed in DFG 2012. Burrows occupied by burrowing owls shall not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist verifies through one week of non-invasive burrow monitoring (no scoping) that either: (1) the birds have not begun egg-laying and incubation; or (2) the juveniles from the occupied burrows are foraging independently and are capable of independent survival.

- To avoid and minimize impacts to San Joaquin kit fox, the applicant shall implement the January 2011 U.S. Fish and Wildlife Service (USFWS) "Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to Or During Ground Disturbance," for the proposed disturbance areas shown in Exhibit 3-1 of the IS/MND including but not limited to the preconstruction protocol-level surveys which shall be conducted no fewer than 14 days and no more than 30 days prior to the onset of any ground-disturbing activity. The survey area shall include all areas subject to disturbance, and a 250-foot buffer area extending beyond areas subject to disturbance. In the event that an active San Joaquin kit fox den is detected during preconstruction surveys, DFG and USFWS shall be contacted immediately and no project activity shall begin until appropriate avoidance measures have been implemented, and DFG and USFWS have provided written authorization that project construction may proceed. In addition, the proposed fencing along the southern boundary of the project site shall be designed to be wildlife friendly by raising the bottom of the fence six inches above the ground to allow San Joaquin Kit Fox to move into and out of the project site.
- To avoid and minimize impact to valley elderberry longhorn beetle, prior to construction, the applicant shall conduct a survey for elderberry shrubs. The survey area shall include all areas subject to disturbance (as shown in Exhibit 3-1 of the IS/MND), and a 250-foot buffer area extending beyond areas subject to disturbance. In the event that any elderberry shrubs are found, the project applicant shall determine if the shrubs can be completely avoided. Complete avoidance would require no ground disturbance with 20 feet of the

shrub. If complete avoidance is not feasible, the project applicant shall comply with USFWS compensation guidelines for valley elderberry longhorn beetle (USFWS 1999).

- To avoid and minimize impacts to Swainson's hawk within all areas subject to disturbance and within 0.5 mile of the proposed areas of disturbance shown in Exhibit 3-1 of the IS/MND, the applicant shall conduct surveys using methods consistent with current DFG guidance (DFG 1994) and the "Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley" (Swainson's Hawk Technical Advisory Committee May 31, 2000). To avoid and minimize impacts to Swainson's hawks, no intensive new disturbances (e.g. heavy equipment operation associated with construction, use of cranes or draglines, new rock crushing activities) or other project related activities which may cause nest abandonment or forced fledging, shall be initiated within 0.5 mile (buffer zone) of an active nest between March 1 - September 15. No trees known to be used by Swainson's hawk for nesting shall be removed.

Who Implements the Measure:	Applicant
When should the measure be implemented:	Prior to construction and/or earthmoving/grading
When should it be completed:	Prior to construction and/or earthmoving/grading
Who verifies compliance:	California Department of Fish and Game
Other Responsible Agencies:	Stanislaus County Planning Department, Stanislaus County Public Works Department

No. 5 Mitigation Measure BIO-2: Avoid and Minimize Impacts to Waters of the United States.

- Prior to project approval, a qualified biologist shall survey the project site and map and describe all potential waters of the United States. This survey shall include all areas subject to disturbance, and a 250 buffer area extending beyond areas subject to disturbance. To the extent feasible, the project shall be designed and constructed to avoid all areas identified as potential waters of the United States. All potential waters of the United States in the project area shall be clearly marked for avoidance prior to construction with fencing or flagging. If complete avoidance of all potential waters of the United States is feasible, no additional mitigation to avoid and minimize this impact would be required.
- If complete avoidance is not feasible, a formal delineation of waters of the United States shall be conducted by a qualified biologist to determine the extent of jurisdictional wetlands on the project site. The findings shall be documented in a detailed report and submitted to the U.S. Army Corps of Engineers (USACE) for verification as part of the formal Section 404 wetland delineation process. If there would be unavoidable effects under USACE jurisdiction, the Section 404 process shall be completed and the acreage of affected jurisdictional habitat shall be replaced and/or rehabilitated. The acreage of jurisdictional wetland affected shall be replaced on a "no-net-loss" basis in accordance with USACE regulations. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by feasible methods agreeable to USACE.

Who Implements the Measure:	Applicant
When should the measure be implemented:	Prior to construction and/or earthmoving/grading
When should it be completed:	Prior to construction and/or earthmoving/grading
Who verifies compliance:	California Department of Fish and Game
Other Responsible Agencies:	Stanislaus County Planning Department, Stanislaus County Public Works Department

V. CULTURAL RESOURCES

No. 6 Mitigation Measure CR-1: Stop Work if Previously Unknown Archaeological Resources Are Uncovered during Project Construction, Assess the Significance of the Find, and Pursue Appropriate Management.

- If an inadvertent discovery of cultural materials (e.g., unusual amounts of shell, animal bone, bottle glass, ceramics, structure/building remains) is made during project-related construction activities, ground disturbances in the area of the find shall be halted and a qualified professional archaeologist shall be notified regarding the discovery. The archaeologist shall determine whether the resource is potentially significant as per the California Register of Historic Resources (CRHR) and develop appropriate treatment measures.

Who Implements the Measure:	Applicant
When should the measure be implemented:	Ongoing
When should it be completed:	Ongoing
Who verifies compliance:	Stanislaus County Planning Department
Other Responsible Agencies:	Central California Information Center

No. 7 Mitigation Measure CR-2: Stop Work if Human Remains Are Uncovered during Project Construction, Assess the Significance of the Find, and Pursue Appropriate Management.

- If human remains are uncovered during ground-disturbing activities, the contractor and/or the project applicant shall immediately halt potentially damaging excavation in the area of the find and notify the County Coroner and a professional archaeologist to determine the nature of the remains. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (Health and Safety Code Section 7050[c]). Following the coroner's findings, the property owner, contractor or project proponent, an archaeologist, and the NAHC-designated Most Likely Descendent (MLD) shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed. The responsibilities for acting upon notification of a discovery of Native American human remains are identified in California Public Resources Code (PRC) 5097.9.
- Upon the discovery of Native American remains, the project applicant, in consultation with the County shall ensure that the immediate vicinity (according to generally accepted cultural or archaeological standards and practices) is not damaged or disturbed by further development activity until consultation with the MLD has taken place. The MLD shall have 48 hours to complete a site inspection and make recommendations after being granted access to the site. A range of possible treatments for the remains, including nondestructive removal and analysis, preservation in place, relinquishment of the remains and associated items to the descendants, or other culturally appropriate treatment may be discussed. California PRC 5097.9 suggests that the concerned parties may extend discussions beyond the initial 48 hours to allow for the discovery of additional remains. The following is a list of site protection measures that the project applicant shall employ:
 - record the site with the NAHC or the appropriate Information Center,
 - use an open space or conservation zoning designation or easement, and
 - record a document with Stanislaus County.

- The project applicant or their authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance if the NAHC is unable to identify a MLD or the MLD fails to make a recommendation within 48 hours after being granted access to the site. The landowner or their authorized representative may also re-inter the remains in a location not subject to further disturbance if they reject the recommendation of the MLD, and mediation by the NAHC fails to provide measures acceptable to the County.

Who Implements the Measure:	Applicant
When should the measure be implemented:	Ongoing
When should it be completed:	Ongoing
Who verifies compliance:	Stanislaus County Planning Department
Other Responsible Agencies:	Central California Information Center

VI. GEOLOGY AND SOILS

No. 8 Mitigation Measure GEO-1: Implement a Stormwater Pollution Prevention Plan (SWPPP) and associated Best Management Practices (BMPs) for disturbance of more than one acre.

Who Implements the Measure:	Applicant
When should the measure be implemented:	Prior to earthmoving/grading and/or construction
When should it be completed:	Prior to earthmoving/grading and/or construction
Who verifies compliance:	Stanislaus County Public Works Department
Other Responsible Agencies:	Regional Water Quality Control Board, Stanislaus County Planning Department

No. 9 Mitigation Measure GEO-2: Prepare and submit for County review and approval, and implement a grading and erosion control plan.

Who Implements the Measure:	Applicant
When should the measure be implemented:	Prior to earthmoving/grading and/or construction
When should it be completed:	Prior to earthmoving/grading and/or construction
Who verifies compliance:	Stanislaus County Public Works Department
Other Responsible Agencies:	Stanislaus County Planning Department

VII. HAZARDS AND HAZARDOUS MATERIALS

No. 10 Mitigation Measure HM-1: Keep Hazardous Materials in an Identified Staging Area and Prepare and Implement an Accidental Spill Prevention and Response Plan during Construction.

- Before construction begins, the project applicant shall require the construction contractor to identify a staging area where hazardous materials will be stored during construction. The staging area shall not be located in an undisturbed area. The contractor shall also be required to prepare an accidental spill prevention and response plan, which shall be reviewed and approved by the project applicant and the County, that identifies measures to prevent accidental spills from leaving the site and methods for responding to and cleaning up spills before neighboring properties are exposed to hazardous materials.

Who Implements the Measure:	Applicant
When should the measure be implemented:	Prior to construction
When should it be completed:	Ongoing
Who verifies compliance:	Stanislaus County Department of Environmental Resources - Hazardous Waste Division
Other Responsible Agencies:	Stanislaus County Planning Department

No. 11 Mitigation Measure HM-2: Prepare and Implement a Phase II Environmental Site Assessment

Prior to commencing any ground-disturbing activities, the project applicant shall commission a Phase II Environmental Site Assessment which shall be prepared by an appropriately registered professional in the State of California. The Phase II will comply with the guidelines, standards, and regulations set forth by the California Department of Toxic Substances Control. The project applicant will submit the Phase II to the County prior to construction, and will comply with and implement all recommendations and requirements the County imposes in response to these assessments.

Who Implements the Measure:	Applicant
When should the measure be implemented:	Prior to construction
When should it be completed:	Prior to construction
Who verifies compliance:	Stanislaus County Department of Environmental Resources - Hazardous Waste Division
Other Responsible Agencies:	Stanislaus County Planning Department

No. 12 Mitigation Measure HM-3: Implement Avoidance and Minimization Measures for Impacts Related to the Abandoned Oil and Gas Exploration Well

The Phase II Environmental Site Assessment (Mitigation Measure HM-2) will also disclose the presence/absence of the abandoned oil and gas exploration well on the project site. The project applicant will test the gas and oil well for leakage prior to construction, record the location of the well on all project maps, and impose a 10-foot, no-build buffer zone around the well to ensure that impacts to workers are minimized.

Who Implements the Measure:	Applicant
When should the measure be implemented:	Prior to construction
When should it be completed:	Prior to construction
Who verifies compliance:	Stanislaus County Department of Environmental Resources - Hazardous Waste Division
Other Responsible Agencies:	Stanislaus County Planning Department

VIII. HYDROLOGY AND WATER QUALITY

No. 13 Mitigation Measure WQ-1: A Stormwater Pollution Prevention Plan (SWPPP) for the proposed project will be prepared by the project applicant, approved by the Stanislaus County Public Works

Department prior to commencing with any ground-disturbing construction related activities, and implemented by the project applicant.

- Best Management Practices (BMPs) will be included in the SWPPP for runoff, erosion and water quality, and the BMPs will be put in place and maintained during the duration of ground-disturbing activities during the rainy season or when rain is forecast.

Who Implements the Measure:	Applicant
When should the measure be implemented:	Prior to earthmoving/grading and/or construction
When should it be completed:	Prior to earthmoving/grading and/or construction
Who verifies compliance:	Stanislaus County Public Works Department
Other Responsible Agencies:	Regional Water Quality Control Board, Stanislaus County Planning Department

No. 14 Mitigation Measure WQ-2: A grading and drainage plan will be prepared, submitted to the Stanislaus County Public Works Department for approval prior to issuance of any new building permits, and implemented by the project applicant. Drainage calculations will be prepared as per the Stanislaus County Standards and Specifications that are current at the time a permit is issued. The plan will contain enough information to verify that all runoff will be kept from going onto adjacent properties, into Little Salado Creek or its tributaries, and into the Stanislaus County road right-of-way. All grading and drainage work for the site's access roads will keep runoff within the historic (natural) drainage shed for that area. The grading and drainage plan will comply with the current Stanislaus County National Pollutant Discharge Elimination System (NPDES) General Permit and the Quality Control standards for New Development

Who Implements the Measure:	Applicant
When should the measure be implemented:	Prior to earthmoving/grading and/or construction
When should it be completed:	Prior to earthmoving/grading and/or construction
Who verifies compliance:	Stanislaus County Public Works Department
Other Responsible Agencies:	Stanislaus County Planning Department

No. 15 Mitigation Measure WQ-3: The applicant shall prepare a hydrologic analysis to calculate runoff from the project for both the before and after construction scenarios. This analysis shall include the cross culverts under I-5 and any structures upstream or downstream that could have a secondary impact within Caltrans right-of-way. The hydrologic analysis to calculate runoff and determine flows shall follow the Caltrans Highway Design Manual specifications.

Who Implements the Measure:	Applicant
When should the measure be implemented:	Prior to earthmoving/grading and/or construction
When should it be completed:	Prior to earthmoving/grading and/or construction
Who verifies compliance:	Caltrans, Stanislaus County Public Works Department
Other Responsible Agencies:	Stanislaus County Planning Department

I, the undersigned, do hereby certify that I understand and agree to be responsible for implementing the Mitigation Program for the above listed project.

Signature on File

April 6, 2012

Date



March 1, 2012

MEMO TO: Stanislaus County Planning Commission

FROM: Department of Planning and Community Development

SUBJECT: USE PERMIT APPLICATION NO. 2010-03 - FINK ROAD SOLAR FARM

Staff received a letter from the California Department of Fish and Game (CDFG) dated February 23, 2012, that raised concerns with the environmental document; therefore, staff is working with CDFG to revise mitigation measure(s) and/or add conditions of approval to address their concerns. Consequently, staff respectfully requests the Commission grant a continuance to March 15, 2012, to allow the staff and CDFG time to make the aforementioned revisions.

RECOMMENDATION

Staff recommends the Planning Commission approve a continuance of Use Permit Application No. 2010-03 - Fink Road Solar Farm to the March 15, 2012, Planning Commission hearing.

Attachment: Letter from Jeffrey R. Single, Regional Manager, California Department of Fish and Game dated February 23, 2012

I:\Planning\Staff Reports\UP\2010\UP 2010-03 - Fink Road Solar Farm\3.1.12 Continuation Memo.wpd.

ATTACHMENT C



February 23, 2012

Rachel Wyse
Assistant Planner
Stanislaus County Planning and
Community Development Department
1010 10th Street, Suite 3400
Modesto, California 95354



Subject: Proposed Mitigated Negative Declaration for the Fink Road Solar Farm
(State Clearinghouse No. 2011012006)

Dear Ms. Wyse:

The Department of Fish and Game (DFG) has reviewed the Mitigated Negative Declaration (MND) for the Fink Road Solar Farm Project (Project). The proposed Project would include installing and operating photovoltaic solar energy panels on approximately 800 acres of a 1,600-acre site. Solar power from the first phase of the Project would go into the existing Pacific Gas and Electric Company (PG&E) power grid through utilization of an existing off-site overhead 70-kilovolt (kV) transmission line connecting to an existing PG&E substation. Subsequent Project phases would connect to the existing PG&E overhead transmission lines running through the Project site through connection with a ground-mounted switch gear facility to be located near the base of the existing overhead power line towers in the central portion of the site. Currently, Project Phases 1, 2, 3, and 6 are proposed in dry farm production, and Project Phases 4 and 5 are planted with almond trees. After all five Project phases have been constructed, the proposed Project is projected to generate an aggregate peak power capacity of 80 to 100 megawatts (MW) of electricity. Land that will not be used for Project construction (approximately 800 acres) would be actively planted and cultivated by a farming contractor; this land would be converted from grassland habitat to irrigated agriculture. Services provided by the contractor would include management, supervision, consulting, irrigation, planting, fertilizing, picking, pruning, harvesting, and packing.

The biological report that was completed for the Project assumed that the solar arrays would be in orchards, and that the dry-farmed fields and grassland habitat would be avoided. The MND presents a Project that is partially in orchards, but primarily within fallow dry-farmed fields and grassland habitat which are likely occupied by State-listed species and Species of Special Concern. As a result, the biological report's conclusions regarding species presence and potential biological impacts do not correspond with the Project described and analyzed in the MND.

Cumulative biological impacts were not discussed in the MND. Of particular concern to DFG is the absence of biological survey data, a cumulative impacts analysis, and compensatory mitigation for loss of San Joaquin kit fox (*Vulpes macrotis mutica*), Swainson's hawk (*Buteo*

swainsonii), and burrowing owl (*Athene cunicularia*) habitat, and kit fox habitat connectivity impacts. The Project would occupy nearly the entire width of the corridor that connects the northern-most San Joaquin kit fox population to the core San Joaquin kit fox populations south of the Project. The Project, along with three other proposed solar projects and wind energy development proposals, would likely cumulatively affect this corridor and conflict with the recovery goals outlined in the recovery plan for San Joaquin kit fox by the United States Fish and Wildlife Service (USFWS).

DFG recommends Stanislaus County (Lead Agency) require biological studies to establish a biological baseline and facilitate informed decision making. The biological studies that DFG recommends include wintering and nesting burrowing owl surveys, San Joaquin kit fox surveys, and a survey for Swainson's hawk nest sites within 0.5 mile of the Project site. These studies would provide a basis for assessing impacts to these species and determining whether the prescribed mitigation measures would in fact reduce the impacts to less than significant levels.

Based on the limited information that DFG has about the Project site at this time, we recommend the Lead Agency require the following:

- Complete Swainson's hawk surveys. If Swainson's hawks nest within 10 miles of the Project site, require habitat mitigation as recommended in DFG's "Staff Report regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California" (1994 Staff Report). An Incidental Take Permit (ITP) for Swainson's hawk may be warranted for this Project.
- Complete wintering and nesting burrowing owl surveys, not just the "pre-construction" surveys. Require habitat compensation if burrowing owls are present on the Project site.
- Perform San Joaquin kit fox surveys per protocol, or other methods developed in coordination with DFG, not just the "pre-construction" surveys. Require habitat compensation for impacts to grasslands, dry-farmed areas, and fallow dry-farmed areas. Require Project features that accommodate the kit fox connectivity issue. An ITP for kit fox may be warranted for this Project.

DFG recommends these studies to be completed before California Environmental Quality Act (CEQA) significance determinations are made, so that the survey results can support the significance determinations.

Following is a discussion of DFG's potential jurisdiction for this Project and specific comments to help strengthen the biological impacts analysis in the MND.

Department Jurisdiction

CEQA and California Endangered Species Act (CESA) Authority: DFG is a Trustee Agency for fish and wildlife resources with the responsibility under CEQA for commenting on projects

that could impact fish and wildlife resources. In this role, DFG is responsible for providing, as available, biological expertise to review and comment on environmental documents and impacts arising from project activities. Pursuant to Fish and Game Code §1802, DFG has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species.

DFG is a Responsible Agency when a subsequent permit or other type of discretionary approval is required from DFG, such as an ITP, pursuant to CESA, or a Lake or Streambed Alteration Agreement (LSAA) issued under Fish and Game Code §§1600 *et seq.* As proposed, the Project may warrant an ITP for “take” of Swainson’s hawk, which is listed as threatened pursuant to CESA, and San Joaquin kit fox, which is listed as threatened pursuant to CESA and endangered pursuant to the federal Endangered Species Act (ESA). Sufficient information was not provided in the MND to determine whether “take” authorizations for these species are warranted. Any modification to the bed or banks of Little Salado Creek, including the realigned channel on the Project site, would require Notification to DFG to be in compliance with Fish and Game Code §§1600 *et seq.* It is unclear in the MND whether any modifications to Little Salado Creek would occur.

DFG’s issuance of an ITP and/or an LSAA is also considered a “project” subject to CEQA (CEQA Guidelines §15378). DFG typically relies on the Lead Agency’s CEQA compliance to make findings pursuant to CEQA Guidelines §15091. For the Lead Agency’s CEQA document to suffice for CESA ITP issuance, it must fully describe the potential Project-related impacts to State-listed species, analyze potential impacts of the entire Project including private and public land components, and commit to measures to avoid or minimize, and fully mitigate impacts to these resources. DFG may not be able to issue an ITP by relying on an Environmental Impact Report (EIR) containing a Statement of Overriding Considerations when impacts to a State-listed species are not mitigated to less than significant.

If the MND completed for this Project does not include mitigation measures to reduce impacts to State-listed species to less than significant, or if it does not describe and analyze all components of the Project, DFG may as a result need to act as a CEQA Lead Agency and complete additional CEQA review to support issuance of an ITP and/or LSAA. This could significantly delay ITP or LSAA issuance and, consequently, Project implementation.

Specific Comments on the MND

San Joaquin Kit Fox: San Joaquin kit foxes use dry-farmed agricultural lands, extensively in some cases where they adjoin uncultivated areas. Such areas are used by kit foxes much more extensively than irrigated croplands. The Project site consists of orchards, dry-farmed fields, and fallow dry-farmed fields surrounded by grasslands. The habitat conditions and the known kit fox occurrences in the vicinity suggest that kit foxes utilize the Project site. However, no field surveys were completed that were sufficient to detect San Joaquin kit foxes on the Project site. Due to the lack of a baseline kit fox data and a lack of a habitat compensation measure in the MND, the MND’s conclusion that the potential kit fox habitat impacts would be mitigated to less than significant levels appears unsupported.

The Project's reconnaissance-level biological survey and report assumes that the Project footprint would be within existing orchards only (Memorandum from Todd Chambers at AECOM to Scott Belyea of JKB Energy, April 6, 2010). The report states, "If construction must also occur in grassland habitat or fallow agricultural land, the potential to substantially impact special-status species, particularly San Joaquin kit fox and Swainson's hawk, would increase." Most of the Project is within fallowed dry-farmed fields, and the 800 remaining acres of the site, which are comprised mostly of grassland, are proposed to be actively cultivated.

Because the Project's scope has exceeded what the biological study considered, DFG believes that the MND presents insufficient information to establish an adequate baseline regarding kit fox use of the Project site. DFG recommends the Lead Agency require San Joaquin kit fox surveys following the "San Joaquin Kit Fox Survey Protocol for the Northern Range" (http://www.fws.gov/sacramento/es/documents/kitfox_no_protocol.pdf) and/or scat-detection dog surveys. Surveys are required to determine whether the Project would result in take of San Joaquin kit fox, and to develop measures to minimize and avoid take. If take cannot be avoided, an ITP would be warranted to remain in compliance with CESA.

The Project location is considered to be within the only north-south movement habitat remaining for San Joaquin kit fox in this area. The USFWS's "Recovery Plan for the Upland Species of the San Joaquin Valley, California" lists the Northwest Valley edge to Santa Nella as a Priority 2 recovery task (page 223, Table 12, Recovery Task #5.3.2). Large blocks of natural land in the northwestern kit fox range of Alameda and Contra Costa counties are targeted for protection in the Recovery Plan and listed as Priority 2 recovery task (page 200, Table 7, Recovery Task #2.1.19). The Project area is located within the only known corridor between San Joaquin kit fox satellite populations in the northern range and the core populations to the south (the nearest being the Ciervo-Panoche area) listed in the Recovery Plan. The MND does not discuss this recovery task or identify the corridor. The Project, along with other renewable energy projects proposed within the same corridor in Stanislaus County, has the potential to cumulatively degrade kit fox habitat and the corridor's function. The other projects include the Scantech Westside Solar Ranch, the Beltran Ranch Solar Facility, the Quinto Solar Farm, and the Boulevard Associates wind energy developments. The cumulative habitat loss and degradation could reduce kit fox occupancy within the corridor and thereby decrease the corridor's function of connecting kit fox populations.

DFG would like to work with Stanislaus County, the USFWS, and the applicant to develop measures to avoid and minimize these impacts, and develop habitat compensation measures to be incorporated into the MND if necessary. At this time, based on the Project's location, DFG recommends habitat compensation for the Project's footprint within the non-orchard habitat types if those areas cannot be avoided, but we would first recommend siting the Project within only the orchard areas to minimize kit fox impacts.

DFG is encouraged to see that the Lead Agency has already limited the extent of fencing around the Project and required that any perimeter fence leave a gap at the ground to allow kit fox passage. Another option is to install standard deer fencing upside-down, so that the large mesh openings are at ground level.

Burrowing Owl: DFG recommends conducting burrowing owl surveys and including a habitat compensation measure for burrowing owls if they are present. If habitat compensations are not included, then the MND's conclusion that the potential burrowing owl habitat loss would be mitigated to less than significant levels is unsupported.

DFG recommends the Lead Agency require surveys during the wintering and breeding seasons consistent with the protocols developed to detect burrowing owls. The reconnaissance-level survey completed for the Project was not adequate to determine whether burrowing owls occur on the Project site. The pre-construction surveys required by mitigation measure BIO-1 are also likely to be insufficient to determine burrowing owl use of the site because those surveys are required to occur within 30 days of construction; depending on the time of year, those surveys may occur when burrowing owls are not detectable because they may use the site seasonally.

DFG recommends following the 1993 California Burrowing Owl Consortium survey methods to establish the status of burrowing owl on and next to the Project site and to provide for a CEQA baseline. DFG also recommends the CEQA impact assessment and take avoidance follow DFG's 1995 staff report recommendations. Both of these documents are found at http://www.dfg.ca.gov/wildlife/nongame/survey_monitor.html. To be effective, habitat compensation and enhancement should be of sufficient scale to provide for the number of burrowing owls impacted and to replace the extent of habitat displaced by the Project.

Consistent with accepted protocols, burrowing owl and burrow surveys should be conducted during both the wintering and nesting seasons, unless the species is detected during the first survey. The winter survey should be conducted between December 1 and January 31 (when wintering owls are most likely to be present) and the nesting season survey should be conducted between April 15 and July 15 (the peak of the breeding season). Surveys conducted from two hours before sunset to one hour after, or from one hour before to two hours after sunrise, are also preferable. If the Project site contains potential burrowing owl burrows, DFG recommends that a qualified biologist conduct a survey no more than 30 days before the onset of any ground-disturbing activities.

DFG recommends that projects avoid occupied burrows during the February through August breeding season with a minimum 250-foot no-construction buffer zone, unless a DFG-approved biologist verifies through non-invasive methods that either 1) the birds have not begun egg laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival. During the non-breeding season, burrows should be avoided by at least 160 feet. Not implementing this buffer zone could cause adult burrowing owls to abandon the nest, cause eggs or young to be directly impacted (crushed), and/or result in reproductive failure. Impacts of this nature would likely constitute violations of Fish and Game Code §§ 3503, 3503.5, 3513, and the International Migratory Bird Treaty Act.

If burrowing owls occupy the site during the non-breeding season, a passive relocation effort may be instituted. DFG recommends the MND describe methods that would be used to passively evict owls from burrows along with a monitoring program to ensure that evicted individuals are using a relocation site. DFG's 1995 Staff Report on Burrowing Owl Mitigation

Rachel Wyse
February 23, 2012
Page 6

also recommends that foraging habitat be acquired and permanently protected to offset the loss of foraging and burrowing habitat on project sites.

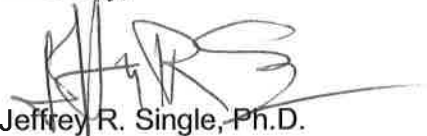
Swainson's Hawk: Field surveys for Swainson's hawk nest locations and an assessment of foraging habitat quality are required to determine the potential impacts to Swainson's hawk from this Project. DFG recommends implementing the survey methodology developed by the Swainson's Hawk Technical Advisory Committee, "Recommended Timing and Methodology for Swainson's Hawks Nesting Surveys in California's Central Valley," to determine if Swainson's hawks are nesting within 0.5 mile of the site (found at http://www.dfg.ca.gov/wildlife/nongame/docs/swain_proto.pdf). The quality of potential foraging habitat on the Project site should be described (e.g., what types of crops are typically grown here).

Application of foraging habitat mitigation depends on an understanding of the site's forage value and relationship to active nests. The Project may warrant habitat compensation to offset potentially significant impacts to Swainson's hawk foraging habitat. DFG recommends that the Lead Agency require, as a mitigation measure in the MND, that the applicant mitigate for Swainson's hawk foraging habitat loss if Swainson's hawks are nesting within 10 miles of the Project site and the Project site contains suitable foraging habitat as described in the 1994 Staff Report.

DFG recommends that the Lead Agency require 0.5-mile buffers around active Swainson's hawk nests to reduce the potential for take of Swainson's hawks. If pre-construction surveys detect a Swainson's hawk nest within 0.5 mile of the Project site, we recommend that the Lead Agency require the Project proponent to delay all construction activities within 0.5 mile of the nest and contact the Lead Agency and DFG immediately to determine how to implement the Project and avoid take. If take cannot be avoided, an ITP would be warranted to remain in compliance with CESA.

Thank you for the opportunity to provide input on the MND for this renewable energy project. If you have any questions regarding these comments, please contact Dave Hacker, Staff Environmental Scientist, at 3196 South Higuera Street, Suite A, San Luis Obispo, California 93401, by telephone at (805) 594-6152, or by e-mail at dhacker@dfg.ca.gov.

Sincerely,



Jeffrey R. Single, Ph.D.
Regional Manager

cc: See Page Seven

Rachel Wyse
February 23, 2012
Page 7

cc: State Clearinghouse
Post Office Box 3044
Sacramento, California 95812-3044

Susan K. Moore, Field Supervisor
United States Fish and Wildlife Service
Sacramento Office
2800 Cottage Way, Room W-2605
Sacramento, California 95825

ec: William Condon, Climate Science and Renewable Energy Branch
Julie Vance, Central Region
Craig Bailey, Central Region
Dave Hacker, Central Region
Department of Fish and Game

STANISLAUS COUNTY PLANNING COMMISSION

March 1, 2012

STAFF REPORT

USE PERMIT APPLICATION NO. 2010-03
FINK ROAD SOLAR FARM
(STATE CLEARINGHOUSE NO. 2011012006)

REQUEST: TO ESTABLISH AN 80-100 MEGAWATT SOLAR FARM ON 800± ACRES IN THE A-2-40/160 (GENERAL AGRICULTURE) ZONING DISTRICTS.

APPLICATION INFORMATION

Applicant:	Scott Belyea, JKB Development
Property Owner:	Stanislaus County
Engineer:	Rick Mummert, Benchmark Engineering, Inc.
Location:	North of the Fink Road Landfill, west of Interstate 5, in the Newman/Crows Landing area.
Section, Township, Range:	19-6-8, 13, 14, 15, 23&24-6-7
Supervisorial District:	Five (Supervisor DeMartini)
Assessor's Parcel:	025-012-016, 017, 031, 033, and 027-033-012
Referrals:	See Exhibit "I" Environmental Review Referrals
Area of Parcel(s):	1,687± acres
Water Supply:	Private well
Sewage Disposal:	Septic system
Existing Zoning:	A-2-40/160 (General Agriculture)
General Plan Designation:	Agriculture
Community Plan Designation:	Not Applicable
Williamson Act Contract No.:	Not Applicable
Environmental Review:	Mitigated Negative Declaration

RECOMMENDATION

Staff recommends the Planning Commission approve this request based on the discussion below and on the whole of the record provided. If the Planning Commission decides to approve the project, "Exhibit A" provides an overview of the required findings for project approval.

PROJECT DESCRIPTION

Request to establish a photovoltaic (PV) solar energy facility creating an aggregate peak power capacity of 80-100 megawatts (MW) of electricity on 800± acres of the 1,687± acre Fink Road Landfill site. The construction will be in multiple phases with each phase being 20 MW consisting of approximately 1,400 trackers with 84,000 PV panels arranged in sub-arrays set on steel posts and aligned in rows utilizing single and dual axis trackers and all required devices.

The project applicant had identified five (5) phases and a sixth (6th) alternative phase for construction of the proposed project. (See Exhibit B - *Maps*.) The first phase will include construction of a one MW thermal steam storage facility to allow for additional electricity supplies to be generated after the sunlight has faded on a given day. A 2,400 square foot metal building will be constructed in the western portion of Phase 1 to house a 100,000-gallon water tank, engine room, and condensing unit. The applicant estimates that one phase would be constructed each year; however, actual construction of each phase is dependent on market demand for additional renewable energy. Additional site improvements include: all weather fire access roads; maintenance buildings; security fencing; construction staging area; and a transmission interconnect to an existing transmission line to PG&E's Solano substation. The remaining 887± acres of the project site will continue to be actively planted and cultivated by a farming contractor. A detailed description of the project components is available in Chapter 2 of the Initial Study. (See Exhibit D - *Initial Study*.)

Construction of the facility is expected to occur in phases with each phase requiring 12-14 construction crew members working between the hours of 7:30 a.m. to 4:00 p.m., Monday through Friday. Upon completion of construction, the facility would be unmanned and monitored off-site by an independent provider of monitoring services via the Internet. The monitor will be responsible for dispatching a maintenance person to the facility if a problem with facility operation occurs. (See Exhibit D - *Initial Study*.)

The 1,687± acre property on which 800± acres will be utilized to construct and operate an 80-100 MW solar farm is owned by Stanislaus County and overseen by the Department of Environmental Resources. In October 2009, Stanislaus County posted a Request For Proposal (RFP) for the establishment of a Solar Facility that would demonstrate support for local renewable energy projects and preserve mitigation land belonging to the Fink Road Landfill. JKB Development was chosen from a pool of applicants and awarded a 12 Month Exclusive Right to Negotiate Agreement with JKB Development for a Long-Term Farming and Potential Solar Farm Lease with the County on December 8, 2009. Additional 12 month time extensions have been granted with the most recent extension approved on December 20, 2011. The County is still in negotiations with JKB Development for long term lease; however, the County has decided to move forward with the Use Permit in the meantime.

Solar Facilities are unique in that actual construction of a facility is dependent on the finalization of Power Purchase Agreements and land lease agreements before construction can begin. Condition of Approval No. 1 recognizes the unique timing of solar projects and allows development to occur anytime within five (5) years of Use Permit Approval. (See Exhibit C - *Conditions of Approval*.)

SITE DESCRIPTION

The subject property is located at 4401 and 4881 Fink Road, north of the Fink Road Landfill, west of Interstate 5 and the California Aqueduct, in the Newman/Crows Landing area. The project site is comprised of five (5) Assessor parcels with a combined acreage of 1,687± acres.

The project site is currently planted in dry crops and almonds. Existing structures within the project area include a single-family dwelling, a mobile home, and an agricultural storage building. (See Exhibit B - *Maps*.) Surrounding uses include: Beltran Ranch, Scatec Solar Farm (not yet constructed), orchard and grazing land to the north; orchards, Interstate 5, the California Aqueduct

and Fink Road to the east; grazing land and the Fink Road Landfill to the south; and rolling hills/grazing land and a bull fighting arena to the west. The site is currently served by private well water, both domestic and agricultural, for residential and irrigation purposes respectively.

GENERAL PLAN CONSISTENCY

The Agriculture designation of the Land Use Element of the General Plan states that the intent of the agriculture designation recognizes the value and importance of agriculture by acting to preclude incompatible urban development within agricultural areas. This designation establishes agriculture as the primary use in land so designated, but allows other uses which by their unique nature are not compatible with urban uses, provided they do not conflict with the primary use.

The establishment of utilities in the A-2 zoning district is primarily supported by the following goal and objective of the Conservation/Open Space Element of the County General Plan:

Goal Eleven: Conserve resources through promotion of waste reduction, reuse, recycling, composting, ride-share programs, and alternative energy sources such as mini-hydroelectric plants, gas and oil exploration, and transformation facilities such as waste-to-energy plants.

Policy Thirty-One: The County shall provide zoning mechanisms for locating material recovery facilities, recycling facilities, composting facilities, and new energy producers when the proposed location does not conflict with surrounding land uses.

Implementation Measure Two: The County shall actively pursue and implement projects, plans, and programs that will effectively protect and conserve existing and future landfill capacity.

The Department of Environmental resources has said that this land is not currently necessary for future landfill capacity and expansion and, as such, because the use is interim in nature, this project is consistent with this implementation measure.

Goal Eleven of the General Plan was written before solar energy was recognized as a valid energy source; however the Goal clearly recognizes and promotes the development of alternative energy sources. After construction of the facility, the site will be unmanned and monitored via the internet. Maintenance workers will be dispatched as needed for repairs and quarterly washing of the solar panels. Nothing in the record indicates that this project would conflict with surrounding land uses.

The Stanislaus County Agricultural Element incorporates guidelines for the implementation of agricultural buffers applicable to new and expanding non-agricultural uses within or adjacent to the A-2 zoning district. The purpose of these guidelines is to protect the long-term health of agriculture by minimizing conflicts resulting from the interaction of agricultural and non-agricultural uses.

On May 3, 2010, this project went before the Agricultural Advisory Board (AAB) with a buffer alternative. The alternative proposed no vegetative screening and cyclone fencing as needed per phase for security purposes. A reduced setback was requested on a portion of the project; however, the Buffer and Setback Guidelines permit utilities, such as solar panels, to be located in the 150-foot standard buffer setback area. The alternative buffer complies with the Buffer and

Setback Guidelines that were revised and adopted by the Board of Supervisors in December 2011. (See Exhibit G - *Appendix "A" Buffer and Setback Guidelines.*) The Planning Commission must find that the agricultural buffer alternative for fencing offers equal or greater protection than the existing buffer standards.

Staff believes this project can be found to be consistent with the General Plan and the Buffer and Setback Guidelines and that the Planning Commission can make the necessary findings for approval of this project. The findings necessary for approval are discussed in the following section.

ZONING CONFORMANCE

The site is zoned A-2-40 and A-2-160 (General Agriculture) and is designated "Agriculture" in the General Plan. Public utilities are permitted in the A-2 zoning district upon approval of a Use Permit as a Tier Three use. Tier Three uses are defined as uses not directly related to agriculture but may be necessary to serve the A-2 district or may be difficult to locate in an urban area. Some Tier Three uses can be people-intensive and, as a result, have the potential to adversely impact agriculture. Tier Three uses may be allowed when the Planning Commission finds that:

1. The use as proposed will not be substantially detrimental to or in conflict with agricultural use of other property in the vicinity; and
2. The parcel on which such use is requested is not located in one of the County's "most productive agricultural areas," as that term is used in the Agricultural Element of the General Plan; or the character of the use that is requested is such that the land may reasonably be returned to agricultural use in the future. "Most productive agricultural area" does not include any land within LAFCO-approved Spheres of Influence of cities or community services districts and sanitary districts serving unincorporated communities.

The site is not located within any LAFCO adopted Spheres of Influence and is designated as "Prime Farmland" by the State Department of Conservation Farmland Mapping and Monitoring Program. The Stanislaus County General Plan states:

"The term "Most Productive Agricultural Areas" will be determined on a case-by-case basis when a proposal is made for the conversion of agricultural land. Factors to be considered include, but are not limited to, soil types and potential for agricultural production; the availability of irrigation water; ownership and parcelization patterns; uniqueness and flexibility of use; the existence of Williamson Act contracts; existing uses and their contributions to the agricultural sector of the local economy."

Based on the site's "Prime Farmland" designation, availability of irrigation, and surrounding uses, staff believes the site meets the County's definition of "Most Productive Agricultural Area." As such, in order to approve the project, the Planning Commission must find that the character of the use is such that the project site may reasonably be returned to agricultural use in the future.

Staff feels that, like UP 2010-09 - Scatec Westside Solar Ranch (a 50 MW solar facility located southwest of the Fink Road Solar Farm site) and UP 2011-10 - McHenry Solar Farm (a 25 MW solar facility located at 221 Patterson Road, in the Modesto/Riverbank area), the character of the use that is requested is such that the land may reasonably be returned to agricultural use in the

future. The property will be graded; however, none of the topsoil will be removed from the site as a part of this project and the applicant will plant a native grass mix to stabilize the soil. Furthermore, a condition of approval as required by the Mitigation Monitoring Plan has been added to this project requiring a Decommissioning Plan be prepared ensuring that the project site is restored to pre-project conditions at the end of the project's life. (See Exhibit C - *Conditions of Approval*.)

Solar equipment generally has a life span of 20 to 25 years. When the solar facility is no longer functional, the equipment will be removed in compliance with the Decommissioning Plan and the land may be returned to agricultural use. (See Exhibit C - *Conditions of Approval*.) All phases of the solar farm will be constructed on land utilized for dry farming crops and orchards. Surrounding grasslands will not be utilized as a part of this project.

Finally, there is no indication that operation of the solar facility will conflict with existing on-site agricultural use or the remaining acreage or agricultural uses in the area. As such, staff believes that all of the aforementioned findings can be made by the Planning Commission.

In addition, the following finding is required for approval of any Use Permit in the A-2 zoning district:

1. The establishment, maintenance, and operation of the proposed use or building applied for is consistent with the General Plan designation of "Agriculture" and will not, under the circumstances of the particular case, be detrimental to the health, safety, and general welfare of persons residing or working in the neighborhood of the use and that it will not be detrimental or injurious to property and improvements in the neighborhood or to the general welfare of the County.

As discussed earlier, this project is consistent with the General Plan. There is no indication that the proposed project will be detrimental to the health, safety, and general welfare of the citizens of this County or detrimental to property and improvements in the area, as each impact associated with the project was identified in the Initial Study and mitigated to a less than significant effect. (See Exhibit D - *Initial Study* and Exhibit E - *Mitigation Monitoring Plan*.)

BACKGROUND AND ENVIRONMENTAL REVIEW

Pursuant to the California Environmental Quality Act (CEQA), the proposed project was circulated to all interested parties and responsible agencies for review. (See Exhibit I - *Environmental Review Referrals*.) The project incorporates mitigation measures to address air quality, biological resources, cultural resources, geology and soils, hazardous materials, and hydrology and water quality as a means of limiting any potential project impacts to a level of less than significant. A Mitigated Negative Declaration is being proposed. (See Exhibit F - *Mitigated Negative Declaration*.) Mitigation measures are reflected as conditions of approval placed on the project. (See Exhibit C - *Conditions of Approval*.)

This project's Initial Study has been circulated to responding agencies twice. The first circulation occurred between December 1, 2010, and January 3, 2011. Staff received a letter from the law firm of Adams, Broadwell, Joseph, and Cardozo (ABJ&C) on January 3, 2011, requesting that the comment period be extended. Consequently, the Initial Study review period was extended to February 7, 2011, and the project was continued from the January 20, 2011, Planning Commission

hearing to the February 17, 2011. hearing. During the extended review period, ABJ&C raised concerns regarding an undisclosed exploratory natural gas well and requested more information regarding the water source for the quarterly washing of solar panels. (See Exhibit H - *ABJ&C Comment Letter*). Planning staff requested an indefinite continuance at the February 17, 2011, Planning Commission meeting to give the applicant time to address these concerns and to revise the Initial Study for re-circulation. The applicant and ABJ&C agreed upon conditions of approval and revisions to mitigation measures to insure all identified impacts were addressed and/or mitigated. The identified impacts included the need for a Water Demand and Supply Plan, a Decommissioning Plan, additional special-status wildlife surveys, an on-site biologist for site preparation, employee education, a Phase II Environmental Site Assessment, and a buffer zone around any abandoned oil and gas exploration wells on the project site. (See Exhibit E - *Mitigation Monitoring Plan*.) Based on the revised Mitigation Monitoring Plan, all impacts can be mitigated to a less-than-significant level.

Note: Pursuant to California Fish and Game Code Section 711.4, all project applicants subject to the California Environmental Quality Act (CEQA) shall pay a filing fee for each project; therefore, the applicant will further be required to pay **\$2,158.50** for the Department of Fish and Game and the Clerk Recorder filing fees. The attached Conditions of Approval ensure that this will occur.

Contact Person: Rachel Wyse, Assistant Planner, (209) 525-6330

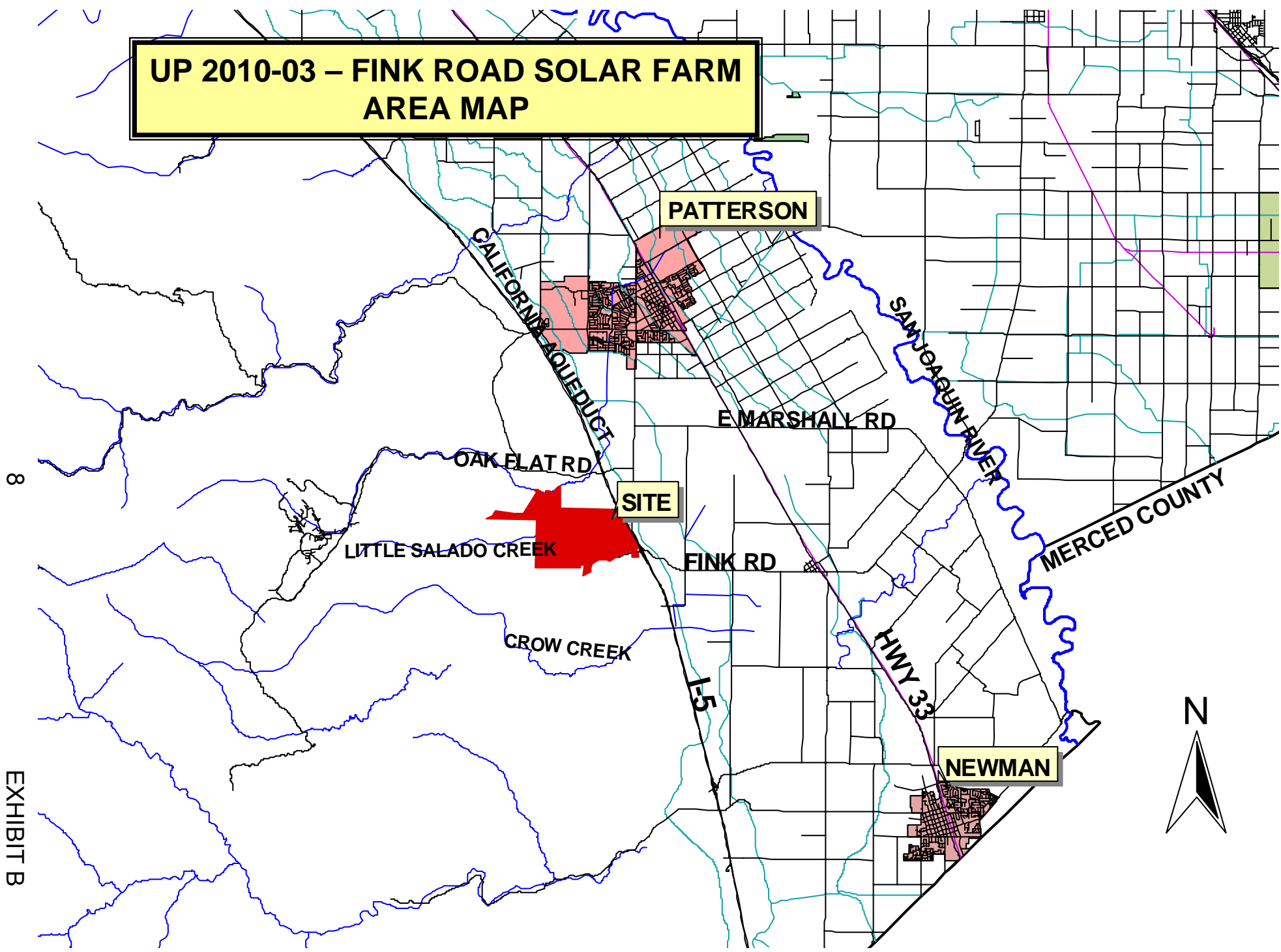
Attachments:

- Exhibit A - Findings and Actions Required For Project Approval
- Exhibit B - Maps
- Exhibit C - Conditions of Approval
- Exhibit D - Initial Study
- Exhibit E - Mitigation Monitoring Plan
- Exhibit F - Mitigated Negative Declaration
- Exhibit G - Appendix "A" Buffer and Setback Guidelines
- Exhibit H - ABJ&C Comment Letter
- Exhibit I - Environmental Review Referrals

Exhibit A
Findings and Actions Required for Project Approval

1. Adopt the Mitigated Negative Declaration pursuant to CEQA Guidelines Section 15074(b), by finding that on the basis of the whole record, including the Initial Study and any comments received, that there is no substantial evidence the project will have a significant effect on the environment and that the Mitigated Negative Declaration reflects Stanislaus County's independent judgement and analysis.
2. Order the filing of a Notice of Determination with the Stanislaus County Clerk-Recorder and State Clearinghouse pursuant to Public Resources Code Section 21152 and CEQA Guidelines Section 15075.
3. Find That:
 - A. The establishment, maintenance, and operation of the proposed use or building applied for is consistent with the General Plan designation of "Agriculture" and will not, under the circumstances of the particular case, be detrimental to the health, safety, and general welfare of persons residing or working in the neighborhood of the use and that it will not be detrimental or injurious to property and improvements in the neighborhood or to the general welfare of the County;
 - B. The establishment as proposed will not be substantially detrimental to or in conflict with agricultural use of other property in the vicinity;
 - C. The parcel on which such use is requested is not located in one of the County's "most productive agricultural areas," as that term is used in the Agricultural Element of the General Plan; or the character of the use that is requested is such that the land may reasonably be returned to agricultural use in the future; and
 - D. The alternative to the Agricultural Buffer Standards applied to this project provides equal or greater protection than the existing buffer standards;
4. Approve Use Permit Application No. 2010-03 - Fink Road Solar Farm, subject to the attached Conditions of Approval and Mitigation Measures.

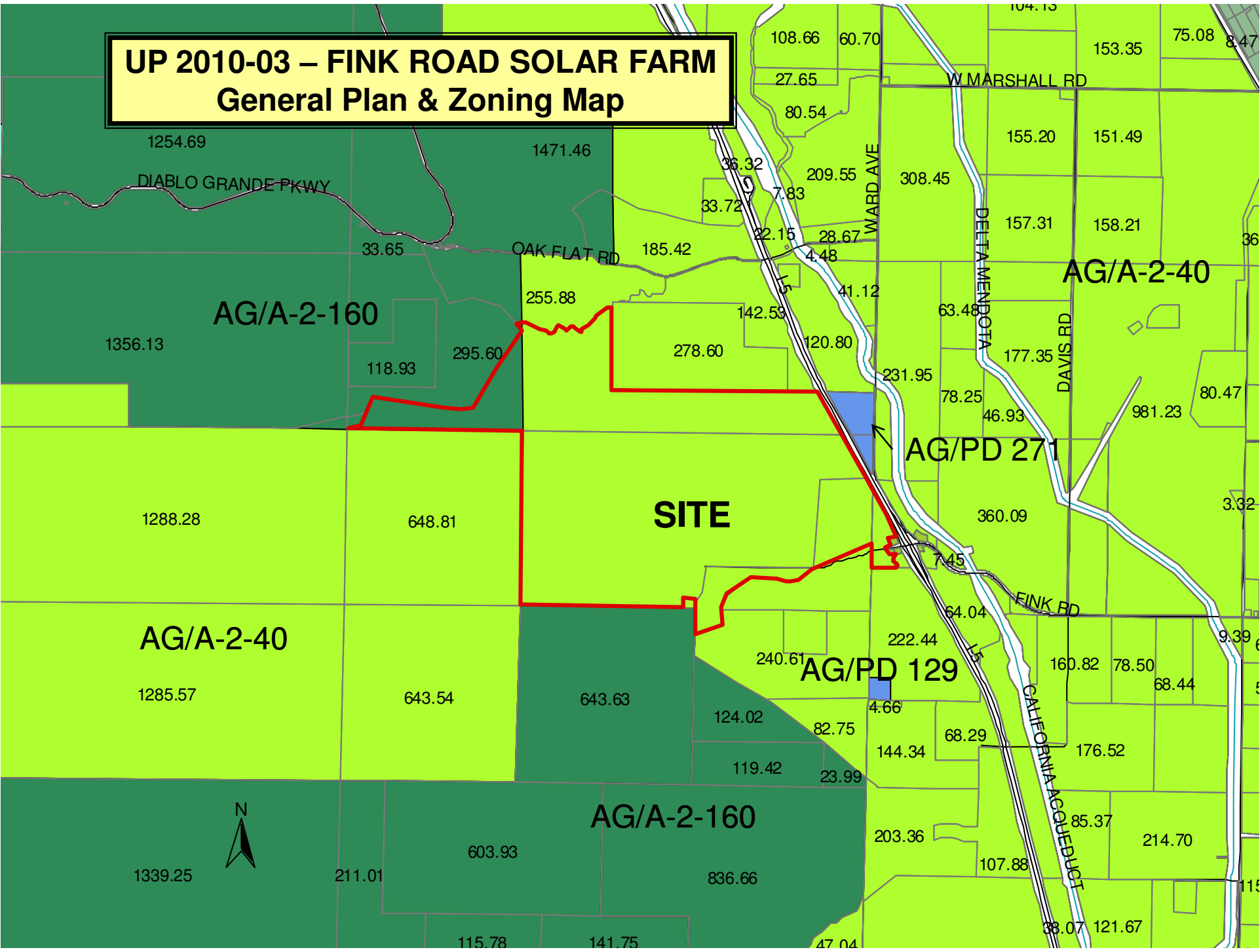
**UP 2010-03 – FINK ROAD SOLAR FARM
AREA MAP**



8

EXHIBIT B

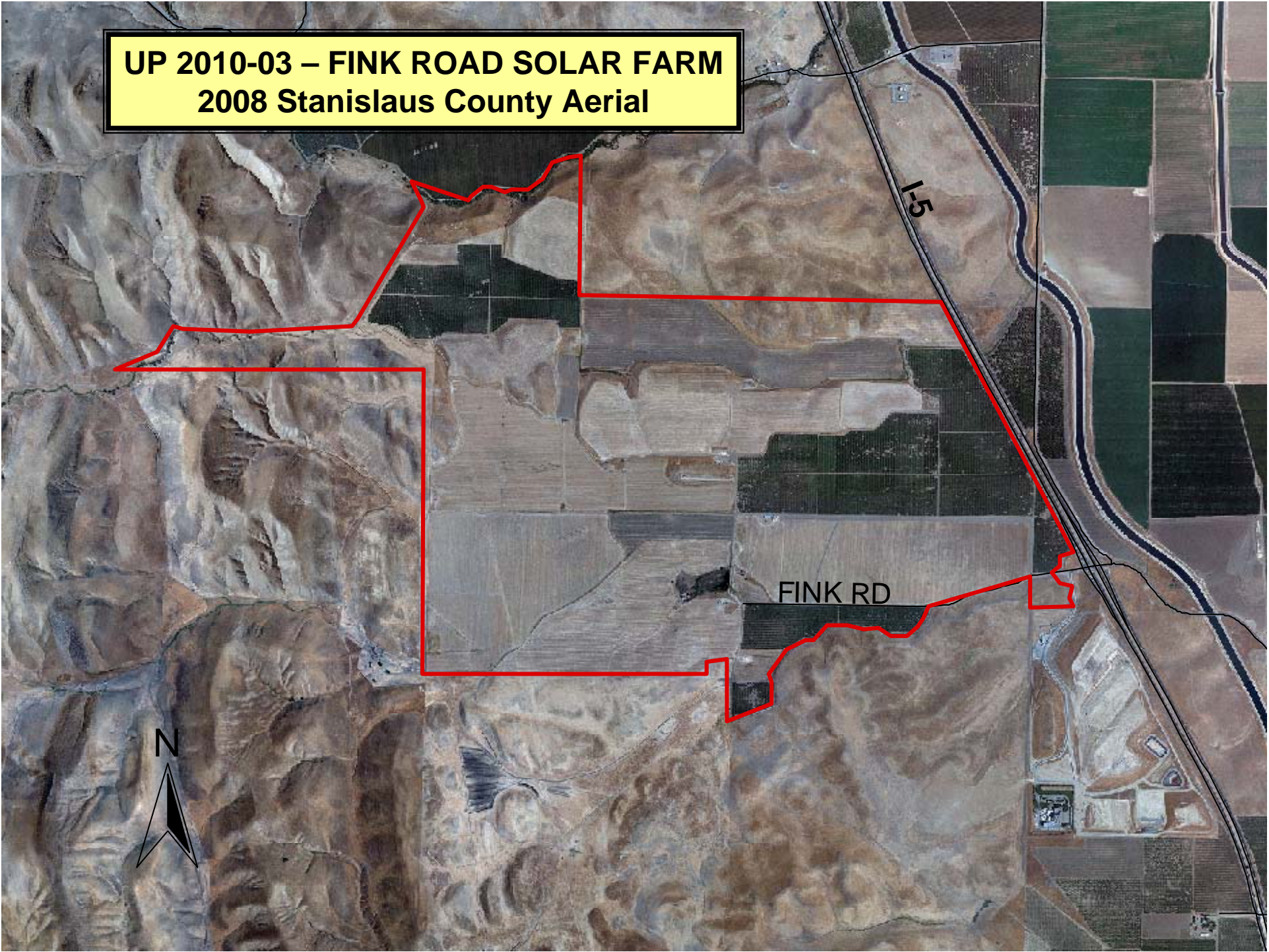
**UP 2010-03 – FINK ROAD SOLAR FARM
General Plan & Zoning Map**

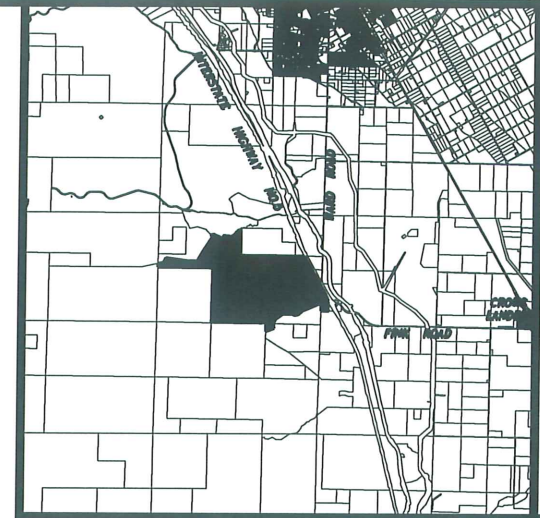
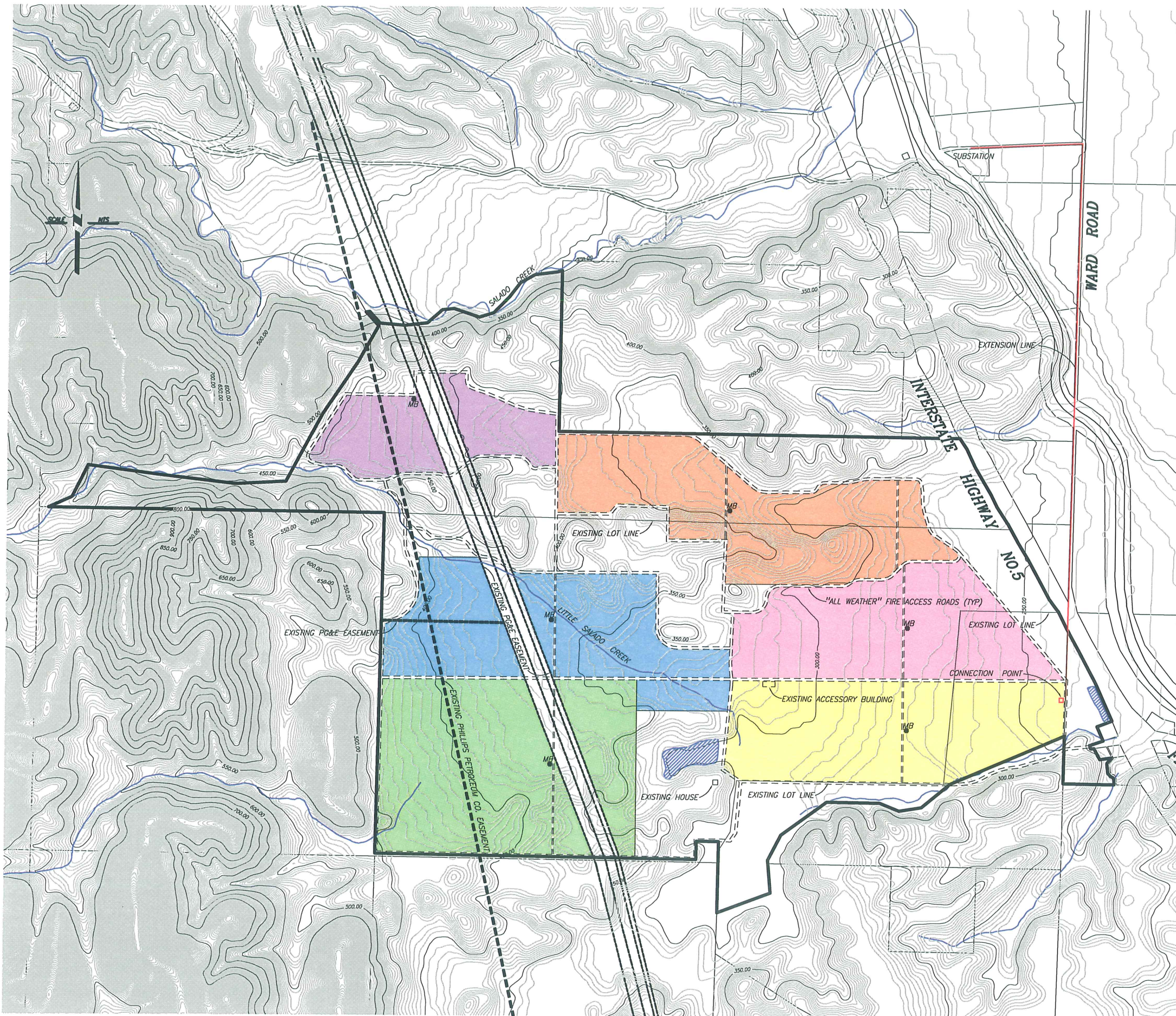


9

EXHIBIT B-1

**UP 2010-03 – FINK ROAD SOLAR FARM
2008 Stanislaus County Aerial**



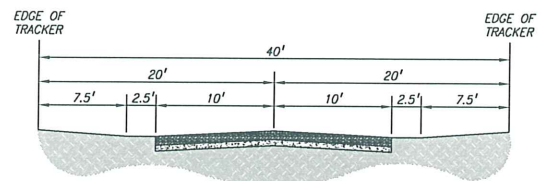


PLOT PLAN
 BEING A PORTION OF SECTIONS 13, 14, 15, 23
 AND 24, STANISLAUS COUNTY RECORDS.
 T.6 S., R.7 E., MDB&M
 STANISLAUS COUNTY, CALIFORNIA
 MARCH 2010

OWNER
 RECORD OWNER: COUNTY OF STANISLAUS
 1010 10TH STREET
 MODESTO, CA 95354
 A.P.N. 027-033-012
 025-012-016
 025-012-017
 025-012-031
 025-012-033

- GENERAL NOTES**
1. AREA OF SUBDIVISION: 1,687± ACRES
 2. THE LAND VARIES IN SLOPES OF 0%–44%
 3. ZONING: A-2-160/A-2-40 GENERAL AGRICULTURE LAND
 4. SOILS: CAPAY CLAY LOAMY SUBSTRATUM, VERNALIS-ZACHARIAS COMPLEX, STOMAR CLAY LOAM, ZACHARIAS CLAY LOAM, CHAQUA-ARBURIA COMPLEX, CARBONA CLAY LOAM, DAMLIUS GRAVELLY CLAY LOAM
 5. WATER TABLE: 266± PER CALIFORNIA DEPARTMENT OF WATER RESOURCES 1969
 6. ONE 15'x15' UTILITY BUILDING MADE OF NON-COMBUSTIBLE MATERIAL WILL BE BUILT FOR EACH PHASE
 7. THE PROJECT WILL BE COMPLETED IN MULTIPLE PHASES

- LEGEND**
- POTENTIAL PROJECT PHASING
 - POTENTIAL PROJECT PHASING
 - POTENTIAL PROJECT PHASING
 - POTENTIAL PROJECT PHASING (POSSIBLE ORCHARD REMOVAL)
 - POTENTIAL PROJECT PHASING (POSSIBLE ORCHARD REMOVAL)
 - POTENTIAL PROJECT PHASING
 - POSSIBLE LOCATION OF MAINTENANCE BUILDING AT PHASE BUILDOUT (SEE SHEET 2 FOR DESCRIPTION)



"ALL WEATHER" FIRE ACCESS ROAD

BENCHMARK ENGINEERING, INC.
CIVIL ENGINEERING & LAND SURVEYING
 213 SOUTH SIERRA AVENUE - OAKDALE, CALIFORNIA - 95361
 (209) 845-9800 FAX: (209) 845-9805



PLOT PLAN
FINK ROAD SOLAR FARM
 STANISLAUS COUNTY, CALIFORNIA

JOB NO. 194720
 DATE: 3-3-10
 DR BY: TM
 CK BY:
 SCALE: AS SHOWN

SHEET NUMBER
1
 OF 1 SHEETS

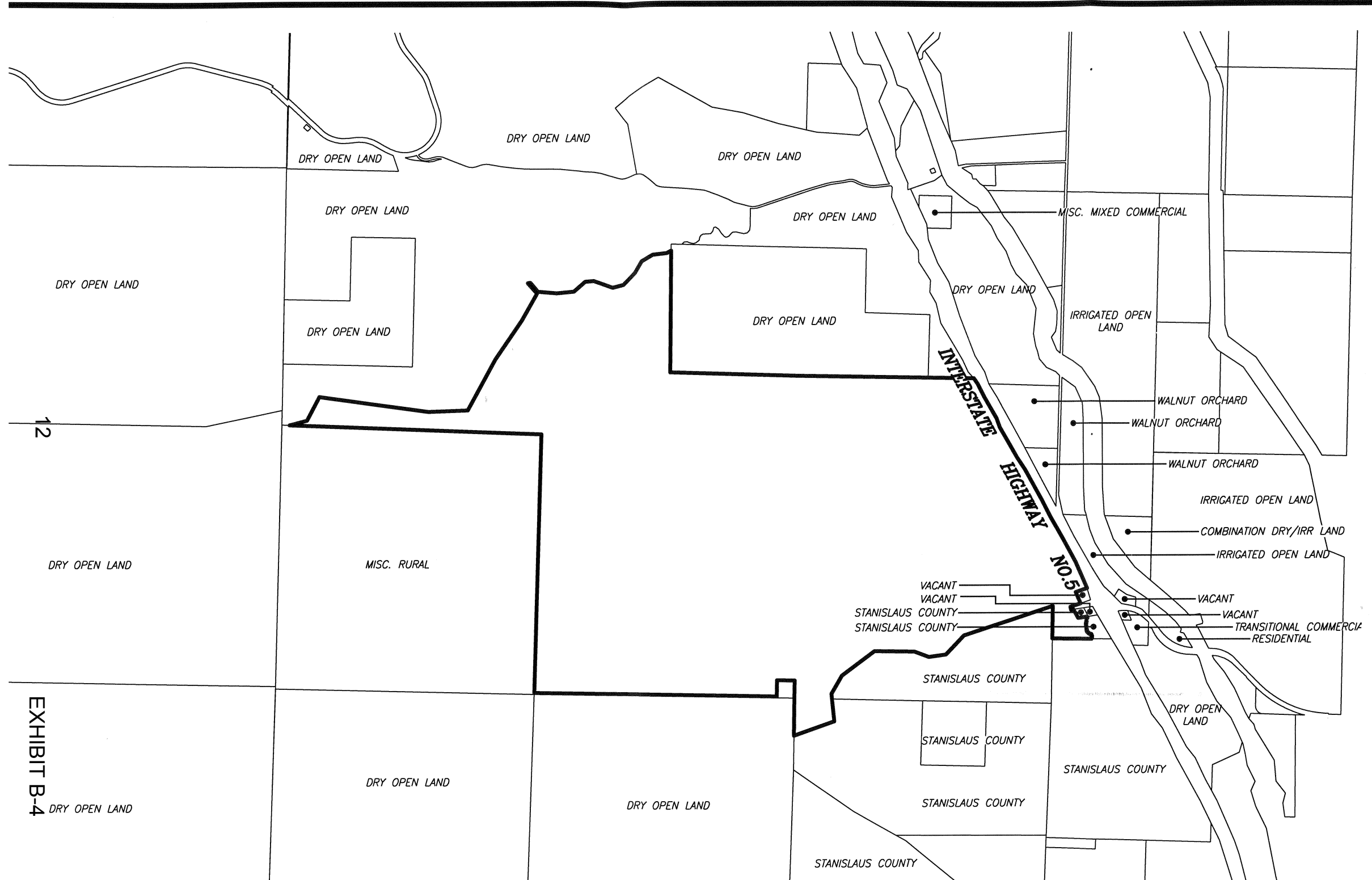


EXHIBIT B-4

PREPARED UNDER THE DIRECTION OF:

NO.	DESCRIPTIONS	DATE	APPROVED

DATE: _____

BENCHMARK ENGINEERING, INC.
CIVIL ENGINEERING & LAND SURVEYING
 213 SOUTH SIERRA AVENUE - OAKDALE, CALIFORNIA - 95361
 (209) 845-8300



AREA MAP

NK ROAD SOLAR FARM
 STANISLAUS COUNTY, CALIFORNIA

NOTE: Approval of this application is valid only if the following conditions are met. This permit shall expire unless activated within 18 months of the date of approval. In order to activate the permit, it must be signed by the applicant and one of the following actions must occur: (a) a valid building permit must be obtained to construct the necessary structures and appurtenances; or, (b) the property must be used for the purpose for which the permit is granted. (Stanislaus County Ordinance 21.104.030)

CONDITIONS OF APPROVAL

**USE PERMIT APPLICATION NO. 2010-03
FINK ROAD SOLAR FARM
(STATE CLEARINGHOUSE NO. 2011012006)**

Department of Planning and Community Development

1. Use(s) shall be conducted as described in the application and supporting information (including the plot plan) as approved by the Planning Commission and/or Board of Supervisors and in accordance with other laws and ordinances. Construction of the initial phase of this project shall be allowed to begin within five (5) years of project approval provided it can be demonstrated that efforts to secure a Power Purchase Agreement and necessary building permits have been on-going.

2. Pursuant to Section 711.4 of the California Fish and Game Code (effective January 1, 2012), the applicant is required to pay a Department of Fish and Game filing fee at the time of recording a "Notice of Determination." Within five (5) days of approval of this project by the Planning Commission or Board of Supervisors, the applicant shall submit to the Department of Planning and Community Development a check for **\$2,158.50**, made payable to **Stanislaus County**, for the payment of Fish and Game and Clerk Recorder filing fees.

Pursuant to Section 711.4 (e)(3) of the California Fish and Game Code, no project shall be operative, vested, or final, nor shall local government permits for the project be valid, until the filing fees required pursuant to this section are paid.

3. Developer shall pay all Public Facilities Impact Fees and Fire Facilities Fees as adopted by Resolution of the Board of Supervisors. The fees shall be payable at the time of issuance of a building permit for any construction in the development project and shall be based on the rates in effect at the time of building permit issuance.

4. All exterior lighting shall be designed (aimed down and toward the site) to provide adequate illumination without a glare effect. This shall include, but not be limited to, the use of shielded light fixtures to prevent skyglow (light spilling into the night sky) and the installation of shielded fixtures to prevent light trespass (glare and spill light that shines onto neighboring properties).

5. Fences and landscaping adjacent to roadways shall be in compliance with County policies regarding setbacks, visibility, and obstructions along roadways.

6. A sign plan for all proposed on-site signs indicating the location, height, area of the sign(s), and message must be approved by the Planning Director or his appointed designee prior to installation.
7. As outlined in the Mitigation Monitoring Plan, the following environmental commitments shall be implemented as a part of this project:
 - A. The project applicant will provide basic information to ensure that a reliable source of water can serve the project in normal and drought years during the project's life. The project applicant will prepare a Water Demand and Supply Plan that will document a reliable source of water.
 - B. The project applicant will prepare a Decommissioning Plan that will ensure that the project site is restored to pre-project conditions, including on-site surface waters, at the end of the project's life.
 - C. In addition to the special-status wildlife surveys set forth in Mitigation Measure BIO-1, the project applicant will conduct surveys for Swainson's Hawk, loggerhead shrike, tricolored blackbird, hoary bat, western spadefoot toad, and San Joaquin whipsnake. The project applicant will prepare a Wildlife Survey Report that documents the results of the wildlife surveys and submit the report to the County prior to construction. The survey report shall include the following information:
 - An identification of the biologist(s) conducting the surveys and their qualifications.
 - The date(s) of the wildlife surveys.
 - The times of day the surveys were conducted.
 - The locations on the project site and buffer areas that were surveyed; and
 - Any other information necessary for the County to ensure compliance with state and federal laws and regulations.
 - D. The project applicant will avoid and minimize impacts on biological resources during project construction and operation. A qualified biologist will be present during the initial site preparation and construction to ensure that significant impacts to biological resources are appropriately mitigated. All employees will be provided with information regarding all protected natural features and the artificial drainage system, explaining the area's biogeochemical, water quality, and flood conveyance functions and values, and outlining activities that are prohibited to adequately protect the channelized drainage features.
 - E. Consistent with Mitigation Measure HM-2, the project applicant will prepare a Phase II Environmental Site Assessment prior to construction to determine whether toxic materials could be present in the soil at the project site.

- F. Consistent with Mitigation Measure HM-3, the project applicant will disclose the presence of any abandoned oil and gas exploration well on the project site, and impose a buffer zone to ensure that impacts to workers will be minimized.
 - G. The project applicant will implement all other Mitigation Measures set forth in this document as part of the project.
8. The Department of Planning and Community Development shall record a Notice of Administrative Conditions and Restrictions with the County Recorder's Office within 30 days of project approval. The Notice includes: Conditions of Approval/Development Standards and Schedule; any adopted Mitigation Measures; and a project area map.
9. The applicant/owner is required to defend, indemnify, or hold harmless the County, its officers, and employees from any claim, action, or proceedings against the County to set aside the approval of the project which is brought within the applicable statute of limitations. The County shall promptly notify the applicant of any claim, action, or proceeding to set aside the approval and shall cooperate fully in the defense.

Building Permits Division

10. Building permits are required and the project must comply with the California Code of Regulations, Title 24. Restroom facilities and interior lot line encroachment shall be reviewed as a part of the building permit process.

Department of Public Works

11. An encroachment permit shall be obtained for any new driveway approaches on any County maintained roadway.
12. Public Works shall approve the location and width of any new driveway approaches on any County-maintained roadway.

Department of Environmental Resources

13. On-site wastewater disposal system (OSWDS) shall be by individual Primary and Secondary wastewater treatment units, operated under conditions and guidelines established by Measure X.
14. The Stanislaus County Source Reduction and Recycling Element (SRRE) contains descriptions of the programs the County has implemented to reduce solid waste disposal in the County by 50%, as mandated by AB939.

Such programs include source reduction, recycling, and composting. Recommendations consistent with the SRRE, which should be incorporated into the project include:

- A. Minimizing, through source reduction, reuse, and recycling, the amount of waste from the project that will require disposal;

- B. During the construction phase, provisions should be made to separate recyclable material from the construction debris. Recovered materials such as wood, sheetrock, metal, and concrete should be diverted to approved use sites or to recyclers;
- C. Incorporate into the project, when possible, products that contain post-consumer recycled materials. Construction materials that have post-consumer content include steel framing, plastic lumber, carpeting, floor mats, parking bumpers, paint, lubricating oil products, glass, and window products;
- D. Compost and other soil amendments necessary for project landscaping can be obtained from permitted composting facilities within Stanislaus County, provided such landscaping material is available and meets specifications. Consider xeriscape practices for landscaped areas within the project. Xeriscaping is landscaping with slow-growing, drought tolerant plants to conserve water and reduce yard trimmings; and
- E. A designated area should be provided that would facilitate the storage of recyclable material containers at businesses.

Stanislaus County Fire Prevention Bureau/West Stanislaus County Fire Protection District (WSCFPD)/Cal Fire - Del Puerto District

- 15. A minimum 100 foot defensible area around the project shall be maintained. This defensible space shall comply with the California Public Resources Code. A vegetation management program shall be approved by WSCFPD.
- 16. An emergency electrical disconnect for the solar panels shall be available to the WSCFPD.
- 17. An adequate fire protection water supply shall be established and maintained. A maintenance program shall be approved by the WSCFPD.
- 18. A perimeter road with adequate cross roads built to State and County fire apparatus standards shall be installed and maintained prior to construction of the solar facility.
- 19. This project is located in the State Responsible Area - Fire Severity Hazard Zone and therefore must comply with the standards for that area.
- 20. Construct electrical infrastructure to latest California P.U.C. and Avian Protection Standards.
- 21. Consult with CAL FIRE prior to construction for access road and fire safe building standards.
- 22. Defensible space, emergency disconnect, and fire protection water supply shall be addressed prior to issuance of a building permit for this project.

23. Any gates to this project, shall comply with the Fire District's lock box standards.

San Joaquin Valley Air Pollution Control District (SJVAPCD)

24. This project is subject to Regulation VIII (Fugitive PM₁₀ Prohibition) requirements and will require a Dust Control Plan (DCP) prior to the start of any construction activities.
25. The project is also subject to District Rule 9510 (Indirect Source Review) and may be subject to additional regulations/permits, as determined by the SJVAPCD. Certain equipment may be subject to District Rule 2010 (Permits Required) and Rule 2201 (New and Modified Stationary Source Review).
26. A revised Air Impact Assessment (AIA) application shall be submitted to the SJVAPCD and any applicable off-site mitigation fees paid before issuance of the first grading/building permit.

California Regional Water Quality Control Board (RWQCB)

27. The district recommends incorporating Low Impact Development (LID) and Hydromodification Strategies into the storm water management plan for this project site. The project proponent should consider all the technically and economically feasible best management practices (BMPs) and applicable design standards to address potential impacts of storm water runoff from the proposed project.
28. Prior to construction, the developer shall be responsible for contacting the California Regional Water Quality Control Board to determine if any of the following are required: a Construction Storm Water General Permit; a Storm Water Pollution Prevention Plan; a Phase I and II Municipal Separate Storm Sewer System (MS4) Permit; an Industrial Storm Water General Permit; a Clean Water Act Section 404 Permit; a Clean Water Act Section 401 Permit-Water Quality Certification; or Waste Discharge Requirements (WDR). If a Storm Water Pollution Prevention Plan is required, it shall be completed prior to construction and a copy shall be submitted to the Stanislaus County Department of Public Works.

MITIGATION MEASURES

(Pursuant to California Public Resources Code 15074.1: Prior to deleting and substituting for a mitigation measure, the lead agency shall do both of the following:

- 1) Hold a public hearing to consider the project; and**
2) Adopt a written finding that the new measure is equivalent or more effective in mitigating or avoiding potential significant effects and that it in itself will not cause any potentially significant effect on the environment.)

29. **AQ-1:** Implement all feasible fugitive dust control requirements of the San Joaquin Valley Air Pollution Control District (SJVAPCD), Regulation VIII. The following measures shall be implemented to reduce particulate matter less than or equal to 10 microns in diameter (PM₁₀) exhaust emissions and further reduce the already less-than-significant impacts associated with reactive organic gas (ROG) and oxides of nitrogen (NO_x) emissions:

- Provide commercial electric power to the project site in adequate capacity to avoid or minimize the use of portable electric generators and any other equipment.
 - Where feasible, substitute electric-powered equipment for diesel engine driven equipment, or implement the use of diesel particulate traps.
 - When not in use, avoid idling of on-site equipment.
 - Where feasible, avoid operation of multiple pieces of heavy duty equipment.
 - Require contractors to use the best available emission reduction and economically feasible technology on an established percentage of the equipment fleet. It is anticipated that in the near future PM₁₀ control equipment will be available. The SJVAPCD shall be consulted with on this process. This requirement shall be included in construction bid specifications.
30. **AQ-2:** Comply with SJVAPCD's Regulation VIII-Fugitive Dust Prohibitions and implement the following applicable control measures, as required by law.
- The project applicant/operator shall submit a Dust Control Plan to the Air Pollution Control Officer (APCO) prior to the start of any construction activity on any site that will include 5 acres or more of disturbed surface area for non-residential development, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials. Construction activities shall not commence until the APCO has approved or conditionally approved the Dust Control Plan. An owner/operator shall provide written notification to the APCO within 10 days prior to the commencement of earthmoving activities via fax or mail. The requirement to submit a dust control plan shall apply to all construction related activities conducted at the project site.
 - The project applicant/operator shall submit a construction notification form to the APCO at least 48 hours prior to the start of any construction activity on the project site that includes greater than one acre of disturbed surface area.
31. **AQ-3:** Implement SJVAPCD-recommended enhanced and additional control measures to further reduce fugitive PM₁₀ dust emissions from public roadways.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways from adjacent project areas with a slope greater than 1% in accordance the project's Stormwater Pollution Prevention Plan (SWPPP), which conforms with the required elements of the General Permit No. CAS000002 issued by the State of California, State Water Resources Control Board.
 - The area encompassing the San Joaquin Valley Air Basin (SJVAB) boundary is also classified as nonattainment for particulate matter less than or equal to 2.5 microns in diameter (PM^{2.5}). The SJVAPCD approach for achieving attainment of the PM_{2.5} standard is has two components. The first component is that the existing PM₁₀ reduction strategies will reduce the fugitive component of PM_{2.5} emissions within the

SJVAPCD. The second component is to address the indirect formation of $PM_{2.5}$. As with ozone NO_x is a precursor of $PM_{2.5}$ so the district reduction strategies for the reduction of NO_x throughout the basin will also reduce the formation of $PM_{2.5}$. In addition since the emissions estimate for PM_{10} was compared to $PM_{2.5}$ thresholds; if PM_{10} emissions estimates are below the $PM_{2.5}$ thresholds then $PM_{2.5}$ must also be below the threshold. The proposed project shall be required to comply with the SJVAPCD's Regulation VIII (SJVAPCD 2009) control measures for construction emissions of PM_{10} . One of these control measures includes the use of water with all "land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities" for fugitive dust suppression. Compliance with SJVAPCD Regulation VIII will further reduce emissions.

32. **BIO-1:** Avoid and Minimize Impacts to Western Burrowing Owl, Valley Elderberry Longhorn Beetle, and San Joaquin Kit Fox.

- To avoid and minimize impacts to western burrowing owl, a protocol-level preconstruction burrowing owl survey shall be conducted covering all areas subject to disturbance, and a 250 buffer area extending beyond areas subject to disturbance no fewer than 14 days and no more than 30 days prior to the start of construction according to methods approved by California Department of Fish and Game (DFG) (DFG 1995). Appropriate avoidance measures shall be determined in consultation with DFG in the event an active burrow is located in an area subject to disturbance, or within the 250 foot buffer area. Burrows occupied by burrowing owls shall not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist verifies through non-invasive methods that either: (1) the birds have not begun egg-laying and incubation; or (2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.
- To avoid and minimize impacts to San Joaquin kit fox, U.S. Fish and Wildlife Service (USFWS) approved preconstruction protocol-level surveys (USFWS 1999) shall be conducted no fewer than 14 days and no more than 30 days prior to the onset of any ground-disturbing activity. The survey area shall include all areas subject to disturbance, and a 250 buffer area extending beyond areas subject to disturbance. In the event that an active San Joaquin kit fox den is detected during preconstruction surveys, DFG and USFWS shall be contacted immediately and no project activity shall begin until appropriate avoidance measure have been implemented, and DFG and USFWS have provided written authorization that project construction may proceed. In addition, the proposed fencing along the southern boundary of the project site shall be designed to be wildlife friendly by raising the bottom of the fence six inches above the ground to allow San Joaquin Kit Fox to move into and out of the project site.
- To avoid and minimize impact to valley elderberry longhorn beetle, prior to construction, a survey shall be conducted for elderberry shrubs. The survey area shall include all areas subject to disturbance, and a 250 buffer area extending beyond areas subject to disturbance. In the event that any elderberry shrubs are found, the project applicant shall determine if the shrubs can be completely avoided.

Complete avoidance would require no ground disturbance with 20 feet of the shrub. If complete avoidance is not feasible, the project applicant shall comply with USFWS compensation guidelines for valley elderberry longhorn beetle (USFWS 1999).

33. **BIO-2:** Avoid and Minimize Impacts to Waters of the United States.

- Prior to project approval, a qualified biologist shall survey the project site and map and describe all potential waters of the United States. This survey shall include all areas subject to disturbance, and a 250 buffer area extending beyond areas subject to disturbance. To the extent feasible, the project shall be designed and constructed to avoid all areas identified as potential waters of the United States. All potential waters of the United States in the project area shall be clearly marked for avoidance prior to construction with fencing or flagging. If complete avoidance of all potential waters of the United States is feasible, no additional mitigation to avoid and minimize this impact would be required.
- If complete avoidance is not feasible, a formal delineation of waters of the United States shall be conducted by a qualified biologist to determine the extent of jurisdictional wetlands on the project site. The findings shall be documented in a detailed report and submitted to the U.S. Army Corps of Engineers (USACE) for verification as part of the formal Section 404 wetland delineation process. If there would be unavoidable effects under USACE jurisdiction, the Section 404 process shall be completed and the acreage of affected jurisdictional habitat shall be replaced and/or rehabilitated. The acreage of jurisdictional wetland affected shall be replaced on a "no-net-loss" basis in accordance with USACE regulations. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by feasible methods agreeable to USACE.

34. **CR-1:** Stop Work if Previously Unknown Archaeological Resources Are Uncovered during Project Construction, Assess the Significance of the Find, and Pursue Appropriate Management.

- If an inadvertent discovery of cultural materials (e.g., unusual amounts of shell, animal bone, bottle glass, ceramics, structure/building remains) is made during project-related construction activities, ground disturbances in the area of the find shall be halted and a qualified professional archaeologist shall be notified regarding the discovery. The archaeologist shall determine whether the resource is potentially significant as per the California Register of Historic Resources (CRHR) and develop appropriate treatment measures.

35. **CR-2:** Stop Work if Human Remains Are Uncovered during Project Construction, Assess the Significance of the Find, and Pursue Appropriate Management.

- If human remains are uncovered during ground-disturbing activities, the contractor and/or the project applicant shall immediately halt potentially damaging excavation in the area of the find and notify the County Coroner and a professional archaeologist to determine the nature of the remains. The coroner is required to

examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (Health and Safety Code Section 7050[c]). Following the coroner's findings, the property owner, contractor or project proponent, an archaeologist, and the NAHC-designated Most Likely Descendent (MLD) shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed. The responsibilities for acting upon notification of a discovery of Native American human remains are identified in California Public Resources Code (PRC) 5097.9.

- Upon the discovery of Native American remains, the project applicant, in consultation with the County shall ensure that the immediate vicinity (according to generally accepted cultural or archaeological standards and practices) is not damaged or disturbed by further development activity until consultation with the MLD has taken place. The MLD shall have 48 hours to complete a site inspection and make recommendations after being granted access to the site. A range of possible treatments for the remains, including nondestructive removal and analysis, preservation in place, relinquishment of the remains and associated items to the descendants, or other culturally appropriate treatment may be discussed. California PRC 5097.9 suggests that the concerned parties may extend discussions beyond the initial 48 hours to allow for the discovery of additional remains. The following is a list of site protection measures that the project applicant shall employ:
 - a. record the site with the NAHC or the appropriate Information Center,
 - b. use an open space or conservation zoning designation or easement, and
 - c. record a document with Stanislaus County.
 - The project applicant or their authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance if the NAHC is unable to identify a MLD or the MLD fails to make a recommendation within 48 hours after being granted access to the site. The landowner or their authorized representative may also re-inter the remains in a location not subject to further disturbance if they reject the recommendation of the MLD, and mediation by the NAHC fails to provide measures acceptable to the County.
36. **GEO-1:** Implement a Stormwater Pollution Prevention Plan (SWPPP) and associated Best Management Practices (BMPs) for disturbance of more than one acre.
37. **GEO-2:** Prepare and submit for County review and approval, and implement a grading and erosion control plan.
38. **HM-1:** Keep Hazardous Materials in an Identified Staging Area and Prepare and Implement an Accidental Spill Prevention and Response Plan during Construction.

- Before construction begins, the project applicant shall require the construction contractor to identify a staging area where hazardous materials will be stored during construction. The staging area shall not be located in an undisturbed area. The contractor shall also be required to prepare an accidental spill prevention and response plan, which shall be reviewed and approved by the project applicant and the County, that identifies measures to prevent accidental spills from leaving the site and methods for responding to and cleaning up spills before neighboring properties are exposed to hazardous materials.
39. **HM-2:** Prepare and Implement a Phase II Environmental Site Assessment.
- Prior to commencing any ground-disturbing activities, the project applicant shall commission a Phase II Environmental Site Assessment which shall be prepared by an appropriately registered professional in the State of California. The Phase II will comply with the guidelines, standards, and regulations set forth by the California Department of Toxic Substances Control. The project applicant will submit the Phase II to the County prior to construction, and will comply with and implement all recommendations and requirements the County imposes in response to these assessments.
40. **HM-3:** Implement Avoidance and Minimization Measures for Impacts Related to the Abandoned Oil and Gas Exploration Well.
- The Phase II Environmental Site Assessment (Mitigation Measure HM-2) will also disclose the presence/absence of the abandoned oil and gas exploration well on the project site. The project applicant will test the gas and oil well for leakage prior to construction, record the location of the well on all project maps, and impose a 10-foot, no-build buffer zone around the well to ensure that impacts to workers are minimized.
41. **WQ-1:** A Stormwater Pollution Prevention Plan (SWPPP) for the proposed project will be prepared by the project applicant, approved by the Stanislaus County Public Works Department prior to commencing with any ground-disturbing construction related activities, and implemented by the project applicant.
- Best Management Practices (BMPs) will be included in the SWPPP for runoff, erosion and water quality, and the BMPs will be put in place and maintained during the duration of ground-disturbing activities during the rainy season or when rain is forecast.
42. **WQ-2:** A grading and drainage plan will be prepared, submitted to the Stanislaus County Public Works Department for approval prior to issuance of any new building permits, and implemented by the project applicant. Drainage calculations will be prepared as per the Stanislaus County Standards and Specifications that are current at the time a permit is issued. The plan will contain enough information to verify that all runoff will be kept from going onto adjacent properties, into Little Salado Creek or its tributaries, and into the Stanislaus County road right-of-way. All grading and drainage work for the site's access roads will keep runoff within the historic (natural) drainage shed for that area. The grading

and drainage plan will comply with the current Stanislaus County National Pollutant Discharge Elimination System (NPDES) General Permit and the Quality Control standards for New Development.

43. **WQ-3:** The applicant shall prepare a hydrologic analysis to calculate runoff from the project for both the before and after construction scenarios. This analysis shall include the cross culverts under I-5 and any structures upstream or downstream that could have a secondary impact within Caltrans right-of-way. The hydrologic analysis to calculate runoff and determine flows shall follow the Caltrans Highway Design Manual specifications.

*Please note: If Conditions of Approval/Development Standards are amended by the Planning Commission or Board of Supervisors, such amendments will be noted in the upper right-hand corner of the Conditions of Approval/Development Standards; new wording is in **bold** and deleted wording will have a ~~line through it~~.*

Recirculated
Initial Study/Proposed Mitigated Negative Declaration
Fink Road Solar Farm Project



Prepared for:
Stanislaus County Planning and
Community Development

January 18, 2012



Recirculated
Initial Study / Proposed Mitigated Negative Declaration

Fink Road Solar Farm Project



Prepared for:

Stanislaus County Planning and
Community Development
1010 10th Street, Suite 3400
Modesto, CA 95354

Contact:

Rachel Wyse
209/525-6330

Prepared by:

AECOM
2020 L Street, Suite 400
Sacramento, CA 95811

Contact:

Francine Dunn
916/414-5840

January 18, 2012



TABLE OF CONTENTS

Section	Page
Acronyms and Abbreviations.....	iii
1 RECIRCULATED INITIAL STUDY/PROPOSED MITIGATED NEGATIVE DECLARATION	1-1
2 INTRODUCTION.....	2-1
2.1 Project Background and Need	2-1
2.2 Project Objectives.....	2-2
2.3 Project Location	2-2
2.4 Project Description	2-2
2.4.1 Stanislaus County Zoning Ordinance Section 21.20.030 (Use Permit)	2-2
2.4.2 Proposed Project Overview	2-5
2.5 Project Components	2-5
2.5.1 Agricultural Buffer	2-5
2.5.2 Single-Access Tracking Arrays.....	2-5
2.5.3 Security Fencing.....	2-6
2.5.4 All-Weather Maintenance and Emergency Access Roads	2-6
2.5.5 Utility Buildings	2-6
2.5.6 Thermal Steam Storage	2-13
2.5.7 Transmission Interconnect	2-13
2.5.8 Facilities Operations and Maintenance	2-13
2.5.9 Utilities and Infrastructure.....	2-13
2.5.10 Project Construction.....	2-14
2.5.11 Decommissioning of the Proposed Project.....	2-14
2.6 Findings.....	2-16
2.7 Public Comments on the recirculated IS/Proposed MND	2-16
3 ENVIRONMENTAL CHECKLIST AND EVALUATION.....	3-1
3.1 Environmental Factors Potentially Affected	3-2
3.2 Determination (to be completed by the lead agency)	3-2
3.3 Evaluation of Environmental Impacts	3-3
3.3.1 Aesthetics	3-5
3.3.2 Agricultural and Forest Resources	3-8
3.3.3 Air Quality.....	3-12
3.3.4 Biological Resources.....	3-18
3.3.5 Cultural Resources	3-28
3.3.6 Geology and Soils	3-33
3.3.7 Greenhouse Gas Emissions	3-38
3.3.8 Hazards and Hazardous Materials.....	3-44
3.3.9 Hydrology and Water Quality	3-48
3.3.10 Land Use and Planning.....	3-53
3.3.11 Mineral Resources.....	3-55
3.3.12 Noise.....	3-56
3.3.13 Population and Housing	3-62
3.3.14 Public Services	3-64
3.3.15 Recreation.....	3-66
3.3.16 Transportation/Traffic	3-67
3.3.17 Utilities and Service Systems.....	3-70
3.3.18 Mandatory Findings of Significance	3-73
4 REFERENCES	4-1
5 LIST OF PREPARERS.....	5-1

TABLE OF CONTENTS

Continued

Page

Appendices

- A Agricultural Advisory Board
- B Air Quality Modeling Data
- C Climate Change Modeling Data

Exhibits

2-1	Regional Project Location	2-3
2-2	Project Location	2-4
2-3	Proposed Phasing Plan	2-7
2-4	Comparison of Existing Conditions with Photosimulation of Proposed Project.....	2-9
2-5	Single Axis Tracker	2-10
2-6	Fencing Plan	2-11
3-1	Biological Habitat Types in the Project Site	3-19
3-2	Special-status Species Occurrences within 5-Mile Search Radius.....	3-22

Tables

BIO-1	Special-Status Species Previously Documented in the Vicinity of the Project Site	3-23
GEO-1	Soil Names and Characteristics	3-34
GHG-1	Summary of Modeled Construction-Generated Emissions of Greenhouse Gases	3-41
GHG-2	Summary of Modeled Operational GHG Emissions	3-42
NOI-1	Maximum Allowable Noise Exposure from Stationary Noise Sources ¹	3-57
NOI-2	Exterior Noise Level Standards	3-58
NOI-3	Cumulative Duration Allowance Standards	3-58

ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
ADT	average daily traffic
APCO	Air Pollution Control Officer
APN	Assessor's Parcel Numbers
AQAP	Air Quality Attainment Plan
ARB	California Air Resources Board
B.P.	Before Present
BACT	best available control technology for toxics
BAU	business as usual
BMP	best management practice
BPS	best performance standards
CAA	federal Clean Air Act
CAAQS	California ambient air quality standards
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CBC	California Buildings Standards Code
CCAR	California Climate Action Registry
CCIC	Central California Information Center
CCN	cloud condensation nuclei
CCR	California Code of Regulations
CDC	California Department of Conservation
CDF	California Department of Forestry and Fire Protection
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFC	chlorofluorocarbon
CH ₄	methane
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO ₂	carbon dioxide
County	Stanislaus County
CRHR	California Register of Historic Resources
CWA	Clean Water Act
dB	decibels
dBA	A weighted
dBA L _{eq}	equivalent 1-hour noise level
DFG	California Department of Fish and Game

diesel PM	Particulate exhaust emissions from diesel-fueled engines
DWR	California Department of Water Resources
EIR	environmental impact report
EPA	U.S. Environmental Protection Agency
ESA	federal Endangered Species Act
ESRP	Endangered Species Recovery Program
FMMP	Farmland Mapping and Monitoring Program
GAMAQI	<i>Guide for Assessing and Mitigating Air Quality Impacts</i>
GHG	greenhouse gas
HAP	hazardous air pollutant
I-5	Interstate 5
IS	initial study
IS/Proposed MND	Initial Study/Proposed Mitigated Negative Declaration
kV	kilovolt
LAFCO	Local Agency Formation Commission
MACT	maximum available control technology for toxics
MLD	Most Likely Descendent
M _{max}	Maximum moment magnitude
MND	mitigated negative declaration
MW	megawatts
N ₂ O	water vapor, nitrous oxide
NAAQS	national ambient air quality standards
NAHC	Native American Heritage Commission
ND	negative declaration
NO _x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
OEHHA	Office of Environmental Health Hazard Assessment
PG&E	Pacific Gas & Electric Company
PM ₁₀	respirable particulate matter with an aerodynamic diameter of 10 micrometers or less
PM _{2.5}	respirable particulate matter with an aerodynamic diameter of 2.5 micrometers or less
ppm	parts per million
PPV	peak particle velocity
PRC	California Public Resources Code
ROG	reactive organic gases
RPS	Renewable Portfolio Standard
SB	Senate Bill
SCDA	Stanislaus County Department of Agriculture
SJVAB	San Joaquin Valley Air Basin
SJVAPCD	San Joaquin Valley Air Pollution Control District
SMAQMD	Sacramento Metropolitan Air Quality Management District's

SO _x	sulfur oxides
SR 33	State Route 33
SWP	California State Water Project
SWPPP	Stormwater Pollution Prevention Plan
TAC	toxic air contaminant
tpy	tons per year
UCMP	U.C. Berkeley Museum of Paleontology
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Society
Vdb	vibration decibels
VMT	vehicle miles traveled
VOC	volatile organic compounds
WTE	Waste-To-Energy

This page intentionally left blank.

1 RECIRCULATED INITIAL STUDY/PROPOSED MITIGATED NEGATIVE DECLARATION

Project: Fink Road Solar Farm

Lead Agency: Stanislaus County

Availability of Documents: The Recirculated Initial Study/Proposed Mitigated Negative Declaration (IS/Proposed MND) is available for review during normal business hours at the Stanislaus County Department of Planning and Community Development offices located at 1010 10th Street, Suite 3400, 3rd Floor Modesto, California 95354. The IS/Proposed MND may also be reviewed at the County's Web site at www.stancounty.com/planning/pl/act-projects.shtm. For questions regarding the IS/Proposed MND and documents referenced in the IS/Proposed MND, contact Rachel Wyse at (209) 525-6330 or via e-mail at wyser@stancounty.com.

This page intentionally left blank.

2 INTRODUCTION

This Recirculated Initial Study/Proposed Mitigated Negative Declaration (IS/Proposed MND) has been prepared for Stanislaus County (County) to evaluate the potential environmental effects of the proposed Fink Road Solar Farm, which is located at 4401 and 4881 Fink Road, in unincorporated Stanislaus County, California, just west of the intersection of Interstate 5 (I-5) and Fink Road. This document evaluates the construction of a proposed solar energy farm. The project site is owned by the County and the project applicant is proposing to lease the County's property to construct and operate the proposed solar energy farm. This document has been prepared in accordance with the California Environmental Quality Act (CEQA) (California Public Resources Code [PRC] Section 21000 et seq.) and the State CEQA Guidelines, as amended (California Code of Regulations [CCR] Section 15000 et seq.).

An initial study (IS) is prepared by a lead agency to determine if a project may have a significant effect on the environment (State CEQA Guidelines CCR Section 15064[a]), an environmental impact report (EIR) must be prepared if there is substantial evidence (such as the results of an IS) that a project may have a significant effect on the environment. A negative declaration (ND) or mitigated negative declaration (MND) may be prepared if the lead agency determines that the project would have no potentially significant impacts or that revisions made to the project have been made, or agreed to by the applicant, that mitigate the potentially significant impacts to a less-than-significant level (State CEQA Guidelines CCR Section 15064[f]).

As described in this IS (Chapter 3), the proposed project would not result in certain significant environmental impacts, due to the implementation of the mitigation measures that have been agreed to and will be implemented by the project applicant. The IS/Proposed MND was circulated for a 30-day public review period beginning December 1, 2010, and ending on January 3, 2010. The County received a comment letter from Adams Broadwell Joseph & Cardozo representing the California Unions for Reliable Energy (CURE). In response to this comment letter, the project applicant and CURE have signed an Agreement outlining how the applicant will address the issues and concerns raised by CURE in their comment letter. As a result, the project applicant has made minor revisions and modifications to the proposed project, including commitment to various environmental commitments that will be incorporated into the proposed project and made conditions of approval by the County. Because of these changes, the County is recirculating the document pursuant to the State CEQA Guidelines State (CEQA Guidelines CCR Section 15073.5 [a, b]). In light of the project revisions and latest environmental commitments, an IS/Proposed MND is the appropriate document for compliance with the requirements of CEQA. This IS/Proposed MND conforms to these requirements and to the content requirements of State CEQA Guidelines CCR Section 15071.

2.1 PROJECT BACKGROUND AND NEED

In 2002, California established its Renewable Portfolio Standard (RPS) Program, with the goal of increasing the percentage of renewable energy used by electric utility companies to 20% by 2017. The 2003 Integrated Energy Policy Report recommended accelerating that target to 20% by 2010, and the 2004 Energy Report Update further suggested increasing the goal to 33% by 2020. In 2006 under Senate Bill 107, California's RPS was created and codified the 20% goal by 2010. California's RPS is one of the most ambitious renewable energy standards in the country. A main source of this renewable power will be solar energy.

Portions of the project site are currently planted with almond trees and according to County staff are producing below standard, because the existing orchard does not currently have an adequate water allocation to sustain it over the long term. In addition, County staff indicate that the expense associated with providing water to maintain the orchard is not commercially reasonable when compared to the cost of operating and maintaining the orchards. Lease revenue from the proposed solar energy farm would provide a sustainable and economically viable use for the County, compatible and consistent with the site's zoning and existing on- and off-site agricultural operations.

2.2 PROJECT OBJECTIVES

The purpose of the proposed project is to:

- ▶ Create jobs for Stanislaus County by using Central Valley suppliers, contractors, manufacturers, and other local vendors to construct the proposed project. Local jobs creation would generate tax revenue needed to help stimulate the local economy.
- ▶ Provide a sustainable use for the property by continuing to actively farm land not used for the solar energy farm.
- ▶ Provide distinct sustainable stream of revenue for the County through lease revenue from the solar energy farm.
- ▶ Preserve the land for future agricultural use (i.e., mitigation land for the Fink Road Landfill located south of the project site) through a project designed in tandem with the County and the existing adjacent farming operations to assure it satisfies performance, aesthetic, and sustainability concerns.
- ▶ Fulfill Stanislaus County’s desire to be a leader in clean energy by creating renewable energy production that is pollution and noise free.

2.3 PROJECT LOCATION

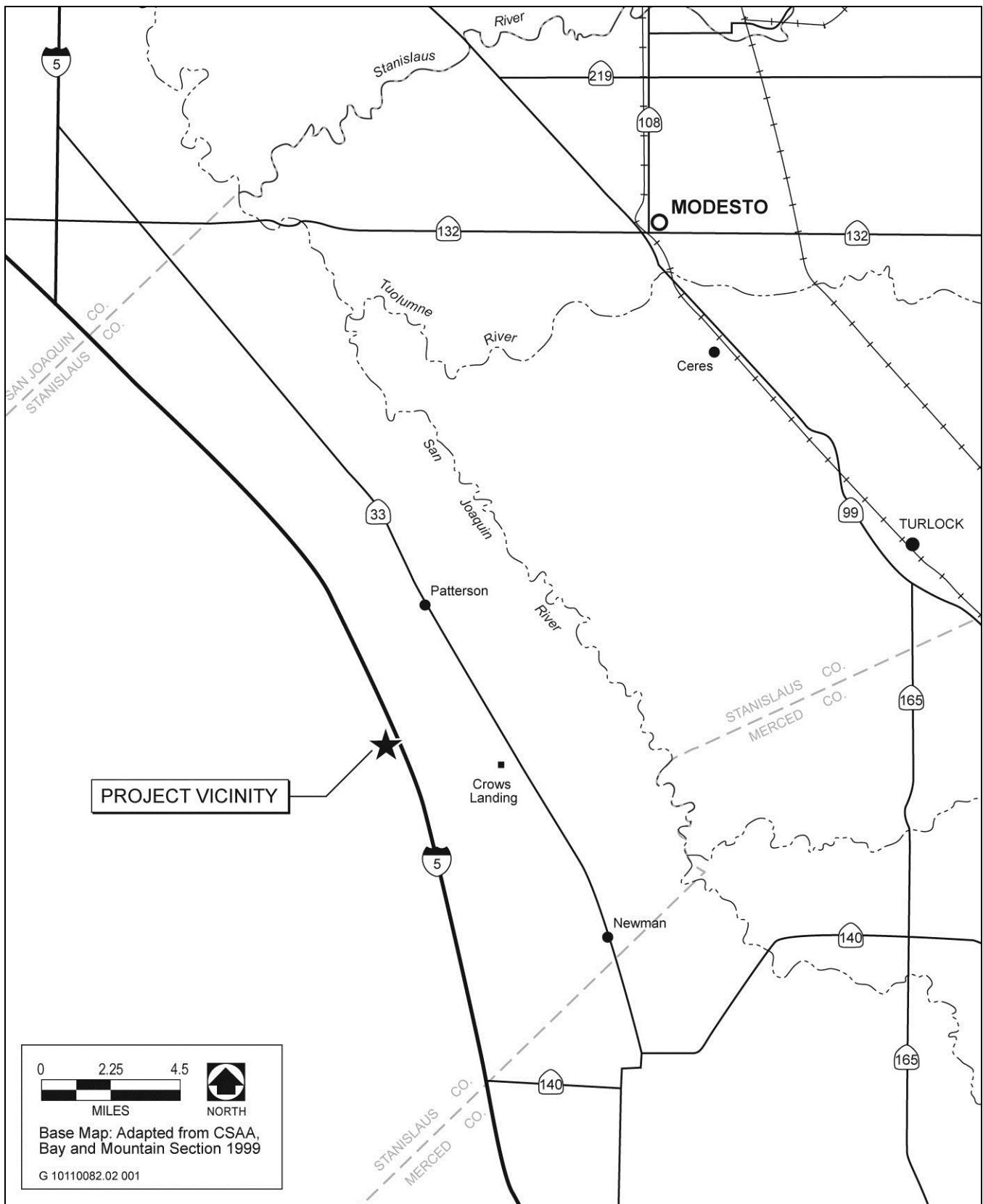
The proposed project is located at 4401 and 4881 Fink Road, Crows Landing, California, just west of the intersection of Interstate 5 (I-5) and Fink Road, approximately 4 miles southwest of the city of Patterson and approximately 18 miles southwest of the city of Modesto (Exhibits 2-1 and 2-2). The Crows Landing Naval Air Station is located approximately two and a half miles east of the project site, and the Fink Road Landfill is located about one half of a mile to the southeast. An existing bull fighting arena and associated facilities is located adjacent to the southwest corner of the project site, at the west end of Fink Road. The project site is zoned A-2-40 and A-2-160 (General Agriculture) by the County and is comprised of Assessor’s Parcel Numbers (APN) 025-012-016, 025-012-017, 025-012-031, 025-012-033, and 027-033-012.

2.4 PROJECT DESCRIPTION

2.4.1 STANISLAUS COUNTY ZONING ORDINANCE SECTION 21.20.030 (USE PERMIT)

The project site is zoned A-2-40 and A-2-160 (General Agriculture) and designated “Agriculture” in the Stanislaus County General Plan. Public utilities are permitted in the A-2 zoning district upon approval of a Use Permit as a Tier Three use. Tier Three uses are permitted with an approved Use Permit under §21.20.030C of the County’s Zoning Ordinance. Facilities for public utilities are one of the uses listed and considered consistent with the General Plan and the General Agriculture zoning district. The subject property will be leased to the applicant by the County, the proposed solar energy farm equipment will be privately owned and maintained by the applicant and the solar energy produced will be sold to Pacific Gas & Electric Company (PG&E). Therefore the proposed project may be permitted under a Tier Three Use Permit. Tier Three uses are defined as uses not directly related to agriculture but may be necessary to serve the A-2 district or may be difficult to locate in an urban area. Tier Three uses may be allowed when the County finds that:

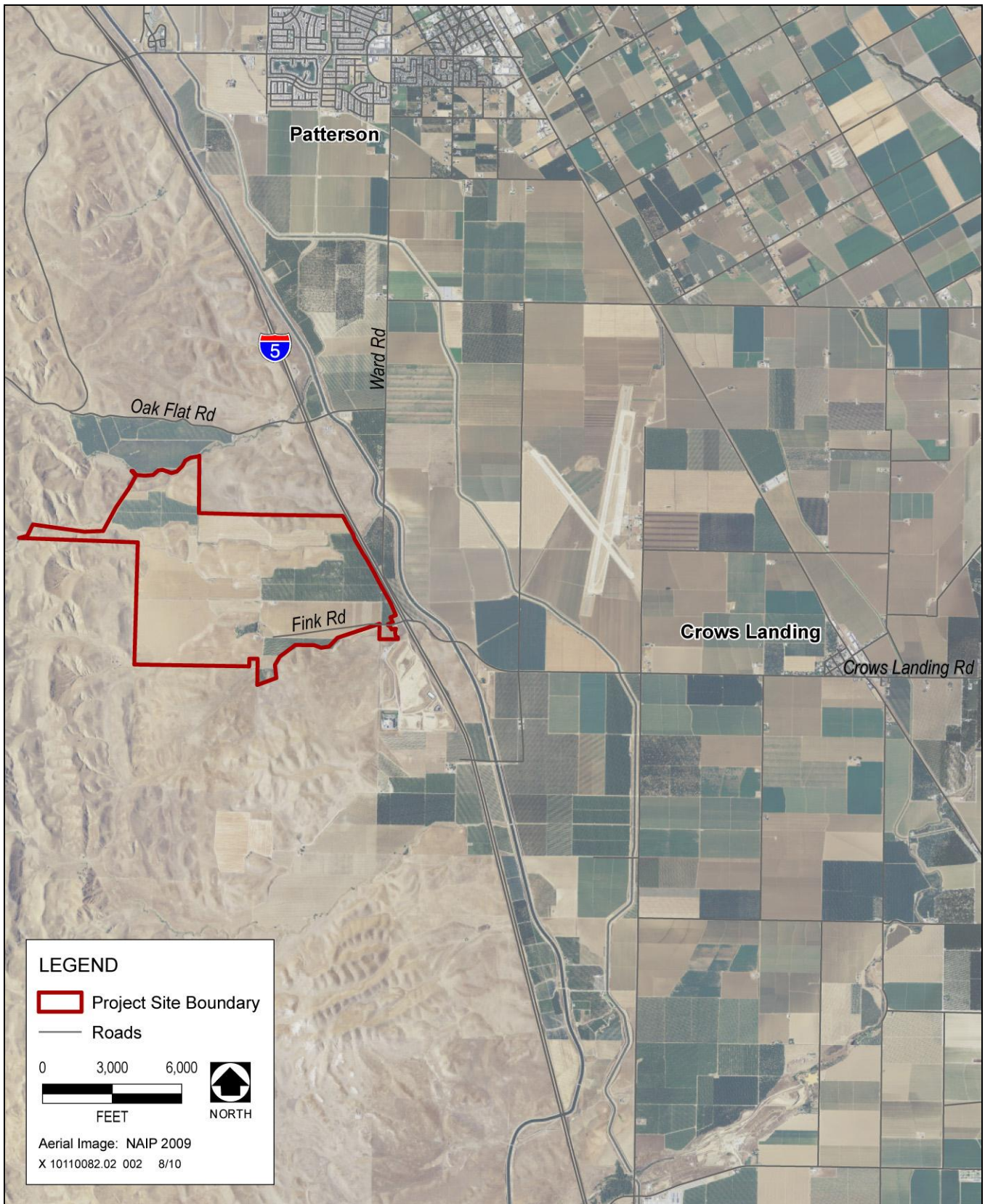
1. The use as proposed will not be substantially detrimental to or in conflict with agricultural use of other property in the vicinity.
2. The parcel on which such use is requested is not located in one of the County’s “most productive agricultural areas,” as that term is used in the Agricultural Element of the General Plan; or the character of the use that is requested is such that the land may reasonably be returned to agricultural use in the future. “Most productive agricultural area” does not include any land within Local Agency



Source: Prepared by AECOM in 2010

Regional Project Location

Exhibit 2-1



Source: Benchmark Engineering 2010

Project Location

Exhibit 2-2

Formation Commission (LAFCO)-approved Spheres of Influence of cities or community services districts and sanitary districts serving unincorporated communities.

3. The establishment, maintenance, and operation of the proposed use or building applied for is consistent with the County's General Plan and will not, under the circumstances of the particular case, be detrimental to the health, safety, and general welfare of persons residing or working in the neighborhood of the use and that it will not be detrimental or injurious to property and improvements in the neighborhood or to the general welfare of the County.

2.4.2 PROPOSED PROJECT OVERVIEW

The project applicant has identified six alternative phase locations, five of which would be used for construction of the proposed project (Exhibit 2-3). The sixth alternative phase has been included as part of the proposed project to provide an alternative location for one of the overall five phases. It is estimated that one phase would be constructed each year, for 5 years, with the first phase beginning in March 2012. The proposed project would develop approximately 800 acres of the subject property with standalone photovoltaic solar energy panels set on steel I-beam posts that would transmit solar power from the site into the existing PG&E power grid through utilization of an existing off-site overhead 70 kilovolt (kV) transmission line connecting to an existing PG&E substation for the first phase. Subsequent phases would connect to the existing PG&E overhead transmission lines running through the project site through connection with a ground mounted switch gear facility to be located near the base of the existing overhead power line towers in the central portion of the site (see section 2.5.6 below for more detail). Currently, Phases 1, 2, 3, and 6 are in dry farm production, and Phases 4 and 5 are planted with almond trees. Each construction phase would generate approximately 20 megawatts (MW) of power and consist of approximately 1,400 trackers with 84,000 photovoltaic solar panels. The panels would be arranged in sub-arrays aligned in rows using single-axis trackers and all required devices, as described below. After all five phases have been constructed, the proposed project is projected to generate an aggregate peak power capacity of 80–100 MW of electricity.

Land that is not used for project construction (approximately 800 acres) would be actively planted and cultivated by a farming contractor. Services provided by the contractor would include management, supervision, consulting, irrigation, planting, fertilizing, picking, pruning, harvesting, and packing.

2.5 PROJECT COMPONENTS

2.5.1 AGRICULTURAL BUFFER

The County requires an agricultural setback of 150-feet for any new nonagricultural use approved in, or adjacent to, the A-2 zoning district. The project applicant has proposed an alternative buffer that includes a 40-foot-wide fenced agricultural buffer from the property line to the tracker edge on 25% of the boundary areas. The remaining 75% of the boundary area would exceed the 150-foot-wide agricultural buffer setback requirement. This proposal was supported by the County's Agricultural Advisory Board on May 3, 2010 (see Appendix A). In addition to the agricultural buffer, the first five rows of the existing almond trees (approximately 100 feet wide) adjacent to and west of I-5 would remain in place to provide a visual buffer of the project site from I-5. This visual buffer would be on land that borders the solar energy farm and is not technically on the project site. Exhibit 2-4 shows what the project site would look like before and after project construction from a viewpoint inside the visual buffer. This view would not be visible from I-5.

2.5.2 SINGLE-ACCESS TRACKING ARRAYS

Each phase of the proposed project would include the construction of approximately 1,400 single-access tracking arrays. Each array would be set on a 20-foot-long uncoated steel I-beam post. Each I-beam post would be 8 inches

wide. No grading is proposed as part of the process of placing the single-axis trackers. The steel I-beam posts would be pile driven to a maximum depth of 12 feet. The depth to which these posts are set into the ground would be adjusted to accommodate the site's topography. At project buildout, an estimated 7,000 posts would be placed throughout the subject property. These posts would be "pushed" into the ground using a hydraulic driver.

Each tracking array would consist of 60 photovoltaic solar panels (15 panels wide by 4 panels tall). Each solar panel measures 39 inches by 77 inches (250.25 square feet). Therefore, the overall size of each tracking array would be 13.00 feet by 96.25 feet with a total surface area of 1,251.25 square feet. Each solar panel would have at least one layer of anti-reflective coating that would reduce the sunlight that is reflected and increase the amount of sunlight that is absorbed. Refer to Exhibit 2-5 for a detail of the single access tracking arrays.

An electrical line would be attached to each array which would then transmit the power from the array as described in section 2.5.6 below. The electrical lines would be buried to avoid damage. The arrays would rotate from east to west throughout the day following the sun via GPS. At night the arrays rotate back to the east to reset for the next day.

2.5.3 SECURITY FENCING

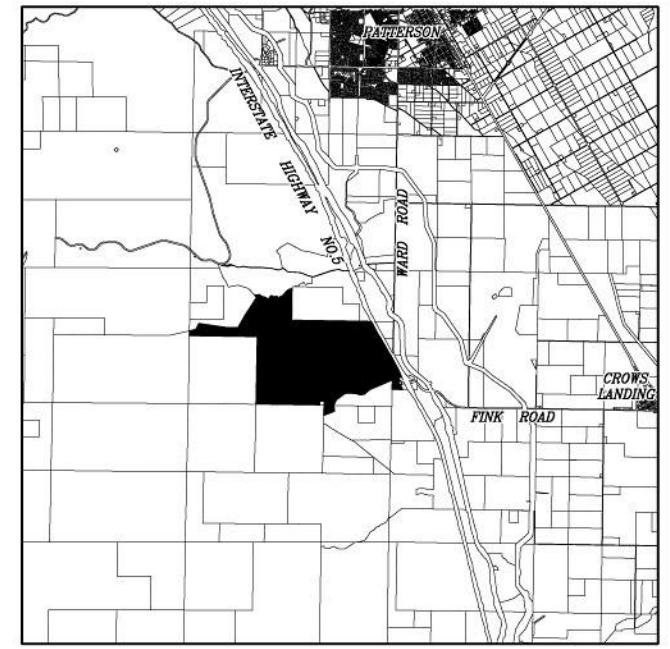
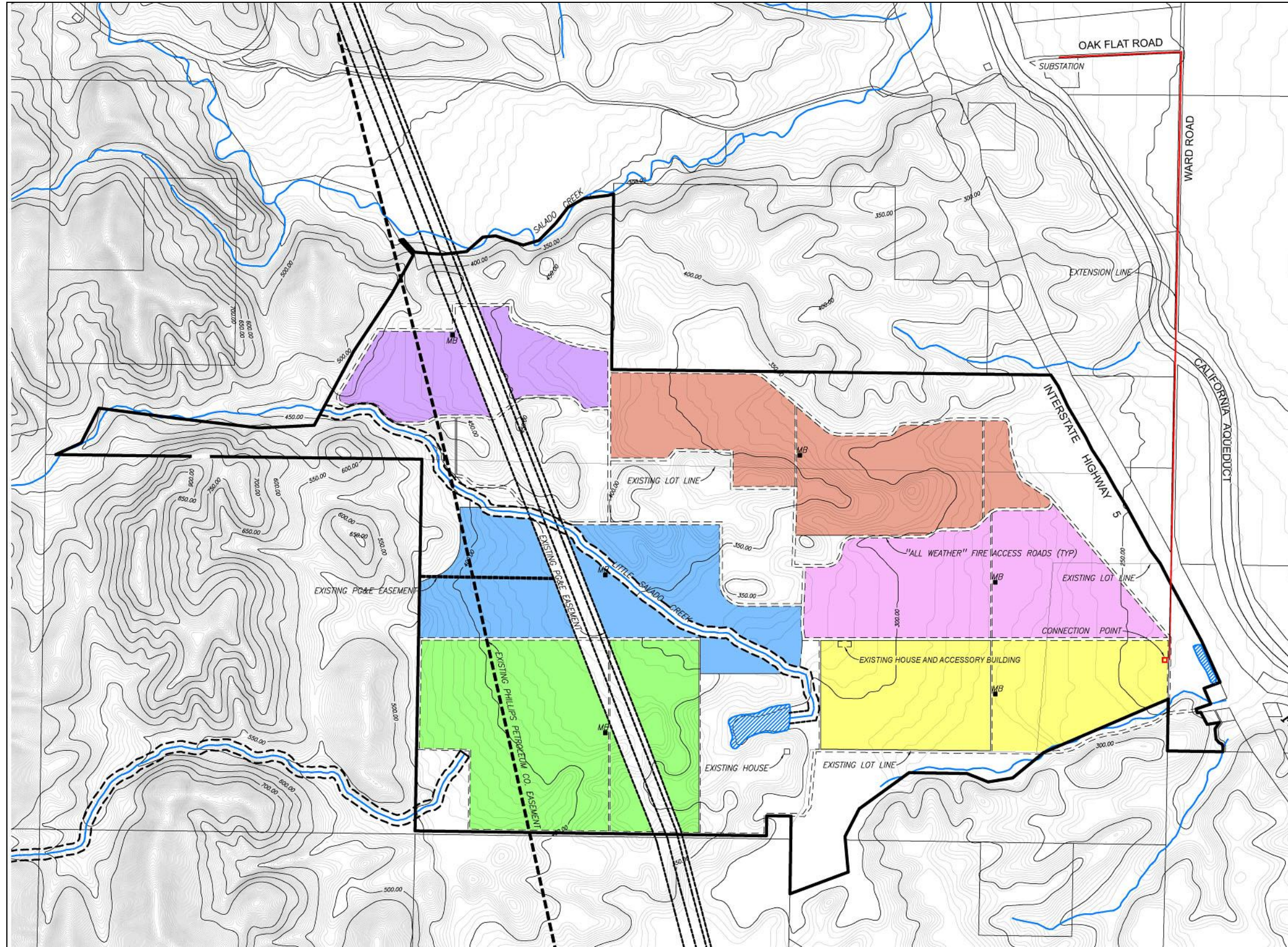
The project proposes to provide security fencing along the frontage of I-5 and along the southern boundary of the project site adjacent to Fink Road that would consist of 5-foot-high cyclone fencing(Exhibit 2-6; the remainder of the property would not be fenced. An entrance gate would be located along this fence in the south-central portion of the project site as shown on Exhibit 2-6. The gate would be automatic requiring a security code or card to enter. Signs would also be posted on the fence that read "Danger High Voltage Keep Out." The intent of locating security fencing along the frontage with I-5 and along the southern boundary adjacent to Fink Road is to deter trespassers from entering the property while allowing the remainder of the property to be accessible to the local wildlife population. In addition, the fencing along the southern boundary will not impede access to the bull fighting arena facility located at the west end of Fink Road.

2.5.4 ALL-WEATHER MAINTENANCE AND EMERGENCY ACCESS ROADS

The proposed project would take access off of the existing Fink Road, west of I-5. No improvements to Fink Road are proposed. A network of all-weather maintenance and emergency access roads (access roads) would be located throughout the site providing access to all phases of the proposed project. Approximately 6,000 cubic yards of permeable all-weather access roads would be graded for each project phase. The access roads would begin at the entrance gate in the south-central portion of the project site (Exhibit 2-6). The access road system would serve as a means for emergency, construction, and maintenance vehicles to access the site. The design of these access roads would meet all applicable regulations and requirements for such access, which include the California Fire Code and the Stanislaus County Code (Chapter 16.15). The access roads would be 20 feet wide and be set back 10 feet from the edge of each tracking array. The access roads would be constructed with a permeable 4–6-inch base product that is based on tree resin, containing no petroleum-based additives (e.g., TerraPave). This material is designed such that it can be tilled into the soil during future decommissioning of the solar energy farm.

2.5.5 UTILITY BUILDINGS

One 15-foot by 15-foot utility building made of non-combustible material would be constructed for each project phase. A total of five utility buildings would be constructed. These buildings would serve as substations for each phase of the proposed project, converting and transmitting power generated by the single-axis tracker photovoltaic panels to the on-site connection point with the existing PG&E transmission line. Electrical lines from each single-axis tracker connecting to the substation would be buried approximately 6 inches into the ground to provide security and protection of the lines. Each building would also house general maintenance equipment that includes shovels, squeegee, hoses, and wrenches.

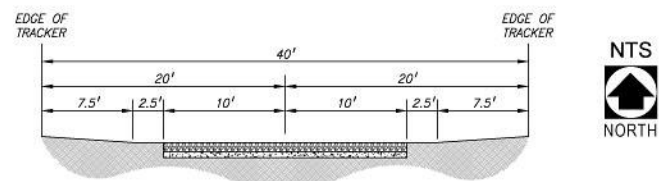


GENERAL NOTES

1. AREA OF SUBDIVISION: 1,687± ACRES
2. THE LAND VARIES IN SLOPES OF 0%-44%
3. ZONING: A-2-160/A-2-40 GENERAL AGRICULTURE LAND
4. SOILS: CAPAY CLAY LOAMY SUBSTRATUM, VERNALIS-ZACHARIAS COMPLEX, STOMAR CLAY LOAM, ZACHARIAS CLAY LOAM, CHAQUA-ARBURIA COMPLEX, CARBONA CLAY LOAM, DAMLIUS GRAVELLY CLAY LOAM
5. WATER TABLE: 268± PER CALIFORNIA DEPARTMENT OF WATER RESOURCES 1969
6. ONE 15'x15' MAINTENANCE BUILDING MADE OF NON-COMBUSTABLE MATERIAL WILL BE BUILT FOR EACH PHASE
7. THE PROJECT WILL BE COMPLETED IN MULTIPLE PHASES

LEGEND

- POSSIBLE LOCATION OF MAINTENANCE BUILDING AT PHASE BUILDOUT
- EXISTING POND
- ACCESS ROAD
- POTENTIAL PROJECT PHASING
 - PHASE 1 - 169.1 ACRES
 - PHASE 2 - 215.5 ACRES
 - PHASE 3 - 146.6 ACRES
 - PHASE 4 - (POSSIBLE ORCHARD REMOVAL) - 178.9 ACRES
 - PHASE 5 - (POSSIBLE ORCHARD REMOVAL) - 77.9 ACRES
 - PHASE 6 - 152.8 ACRES



G 10110082.02 002

Source: Benchmark Engineering 2010, Adapted by AECOM in 2010

Proposed Phasing Plan

Exhibit 2-3



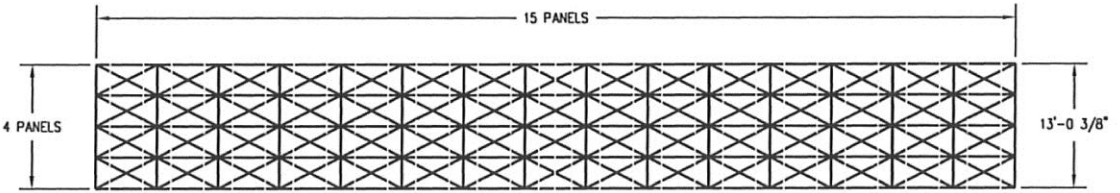
Existing Conditions



Photosimulation with Proposed Project

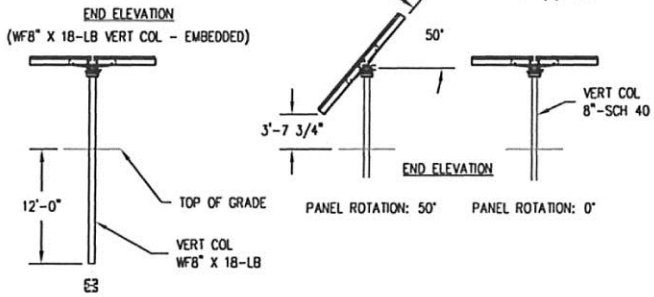
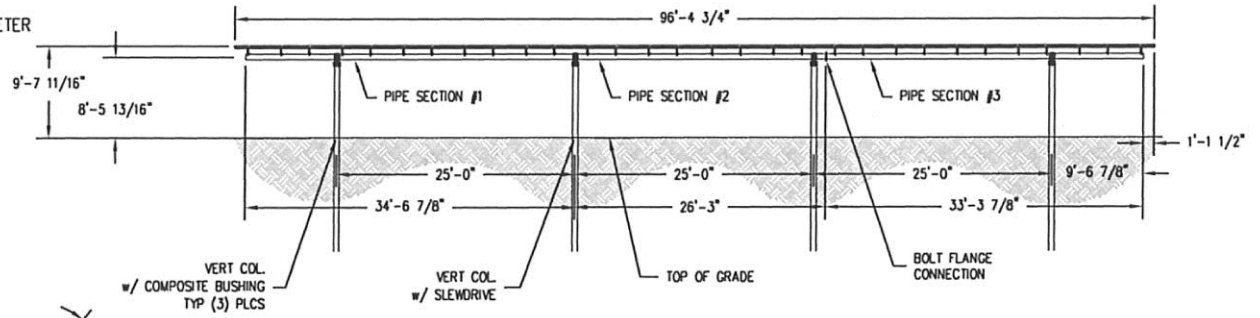
Comparison of Existing Conditions with Photosimulation of Proposed Project

Exhibit 2-4



NOTES:

- 1) PANEL QTY: 60 EA @ 39" X 77"
- 2) SURFACE AREA, TOTAL: 116.3 SQ METER
- 3) 60 PANELS PER ARRAY

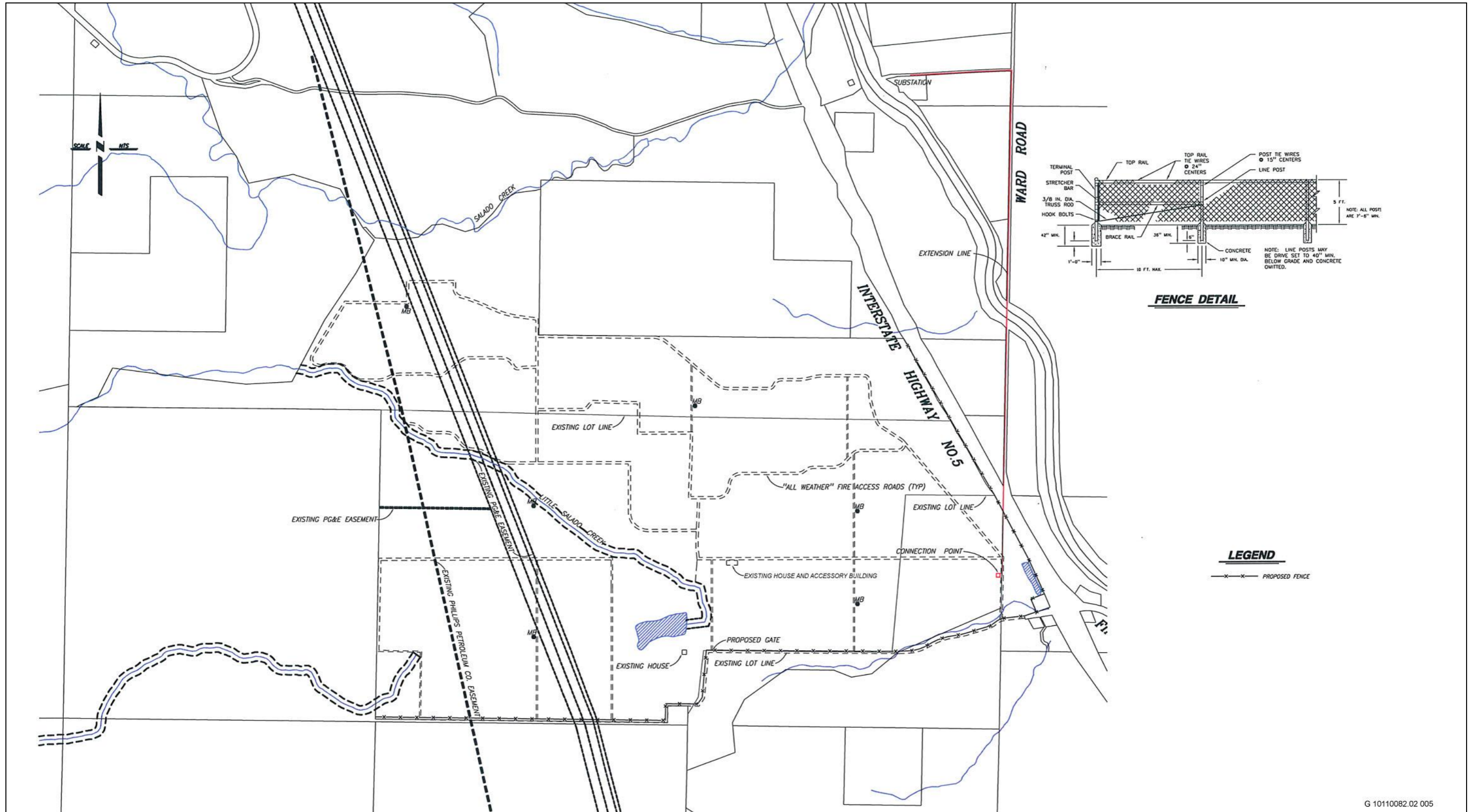


Source: Benchmark Engineering 2010

Single Axis Tracker

AECOM
Introduction

Exhibit 2-5



G 10110082.02 005

Source: Benchmark Engineering 2010

Fencing Plan

Exhibit 2-6

2.5.6 THERMAL STEAM STORAGE

Within the western portion of the Phase 1 area of the project site, a 1-MW thermal steam storage facility would be constructed to allow for additional electricity supplies to be generated after the sunlight has faded on a given day. A 100,000-gallon water tank, engine room, and condensing unit would be housed within a metal structure, approximately 40 feet in width by 80 feet in length by 20 feet in height. Initially, up to 25 water truck trips would be required to fill the water tank, with a single additional water truck required per year to replenish the anticipated annual decrease of 1-2% in water tank supplies.

The proposed thermal steam storage facility would be constructed as part of Phase 1 of the proposed project.

2.5.7 TRANSMISSION INTERCONNECT

No new off-site power lines are proposed as part of the proposed project. The first phase of the proposed project would connect directly to PG&E's existing power grid from the on-site maintenance buildings at one central connection point. The connection point for the proposed project would be located in the southeast corner of the project site just northwest of the Fink Road/I-5 interchange (Exhibit 2-3). Power generated from the first phase of the proposed project would connect to an existing above ground 70 kV line via the central connection point. This power line connects to PG&E's existing Solano substation located approximately 1 1/2-miles northeast of the project site. The 70 kV line runs north from the connection point at the project site over I-5, continues north paralleling Ward Road across the California Aqueduct, then turns west and continues along Oak Flat Road where it terminates at the Solano substation.

Subsequent phases would require construction of a new ground mounted switch gear facility onsite and adjacent to the existing PG&E overhead transmission lines and towers in the central portion of the project site. The ground mounted switch gear facility will be constructed in an approximately 20' x 20' enclosed fenced area. No building construction is proposed to house the switch gear facility.

2.5.8 FACILITIES OPERATIONS AND MAINTENANCE

All monitoring of solar panel operation would occur off-site by an independent provider of monitoring services for the renewable energy industry. This provider would monitor the energy output via the Internet, and dispatch a maintenance person if there is a problem with operation of the single-axis tracking arrays, utility buildings, or transmission connections. In addition, a subcontractor would be dispatched to the project site four times a year on a quarterly basis to wash dust and other debris off of the photovoltaic panels. The photovoltaic panels would be washed by use of a boom truck mounted with a water spray rig. These trucks would carry approximately 3,800 gallons of non-potable water per trip. This water would contain a specially-formulated biodegradable soap that would remove the buildup of dust and other debris while eliminating water spots on the photovoltaic panels. Operation of the proposed project would not require an on-site maintenance or staff person.

There would be limited upkeep required for the area under the solar arrays. These areas would be planted with a Caltrans native annual wildflower mix that includes California Goldfields, Coastal Tidytips, Bicolor Lupine, and Spanish Lotus. This mix would result in low lying grass growth and would require minor maintenance activity in the form of cutting the grasses after the rainy season ends and the grasses begin to dry out (e.g., late spring). Native grasses and wildflowers do not require irrigation and the resulting understory vegetation would assist with erosion and dust control.

2.5.9 UTILITIES AND INFRASTRUCTURE

The project applicant will prepare a formal Water Demand and Supply Plan prior to initiating any ground-disturbing activities. The Plan will identify the project's water demand for construction, irrigation, panel washing, and fire suppression activities and also identify a water source with a reliable capacity to meet these demands. The

plan will also include a commitment that water conservation measures will be applied to the project that meet or exceed any standards and regulations transmitted by the County and the State of California. As currently proposed, a private water truck company would provide water service to the site for the purposes of cleaning the panels. Watering, which would take place quarterly, would involve the use of a boom truck mounted with a water spray rig. Assuming that a single truck has a 3,800-gallon capacity, 5 trucks would be required per quarterly event for each phase of the project (i.e. 20 megawatts) to wash dust and other debris off of the photovoltaic panels. Once all phases of the project are completed, approximately 62,500 gallons would be required on a quarterly basis for cleaning purposes. It should be noted that the annual water demand associated with the proposed project (approximately 250,000 gallons) would be roughly equivalent to the annual water demand of two single-family homes. Water supplies would be obtained from a nearby hydrant and would be permitted by the local water supplier prior to use. The nearest water supplier to the project site is the Crows Landing Community Services District (CSD), located approximately 4 miles east of the project site. Ignacio Lopez, District Manager of the Crows Landing CSD confirmed that the CSD has enough capacity to meet the wash water demand for the project. The project applicant will be required to obtain approval from the CSD Board before the CSD will provide water. Crow's Landing obtains its water supplies from two local groundwater wells.

There are no wastewater needs for the proposed project as portable toilets would be provided for construction crews during each phase of construction. No County law enforcement personnel would be required for project operation. A Knox Box rapid entry system would be installed at the entry gate to the project site according to the West Stanislaus County Fire Protection District's stipulations. A Knox Box is a small, wall-mounted safe that holds access keys for firefighters and other emergency personnel to retrieve in urgent situations. Security would be handled wirelessly from an off-site location.

2.5.10 PROJECT CONSTRUCTION

The applicant estimates that project construction would begin in April 2012 and occur in five phases with each phase consisting of approximately 1,400 single-axis trackers. Each phase would require 12–14 construction crew members working between the hours of 7:30 a.m. to 4:00 p.m. Monday through Friday. No construction would occur on Saturdays or Sundays.

Construction staging areas would be located on-site and delineated by cyclone fencing. For the first phase the staging area would consist of approximately 2–3 acres and would be located near the access gate entrance. Staging areas for each subsequent phase would be located within the limits for each phase. There would be one construction staging area for each phase of the project. The staging areas would be approximately 2–3 acres in size. Construction equipment would be stored at the staging area and would include pile drivers, forklifts, portable welders, man lifts, steel beams, framework, panels, and miscellaneous bolts, screens, and wires. Equipment would be regularly maintained to ensure that no vehicle fluids are allowed to spill onto the project site. Staging areas would also be graded and maintained (including watering) in order to minimize tracking of materials off-site. The only waste generated by project construction would be the cardboard packaging from the solar panels. These items would be banded at the construction staging area and sent off-site for recycling.

2.5.11 DECOMMISSIONING OF THE PROPOSED PROJECT

The proposed project would be decommissioned at the expiration of the solar energy farm's equipment life. No less than one year from the proposed decommissioning of the solar energy farm, the project applicant will prepare a Decommissioning Plan for County review and approval that will include the following components:

- ▶ the estimated number of years the project would be in operation;
- ▶ responsibility for the removal and recycling or disposal of all solar arrays, inverters, transformers, utility buildings, fencing, lighting fixtures, and other structures or equipment; and

- ▶ anticipated restoration activities, including a description of revegetation measures.

ENVIRONMENTAL COMMITMENTS

The project applicant agrees to incorporate the following environmental commitments as part of the project. The County will include each of these commitments as conditions of approval in its approval of the conditional use permit and project.

- ▶ The project applicant will provide basic information to ensure that a reliable source of water can serve the project in normal and drought years during the project's life. The project applicant will prepare a Water Demand and Supply Plan (see Section 2.5.9 above) prior to initiating any ground-disturbing activities that will document a reliable source of water.
- ▶ The project applicant will prepare a Decommissioning Plan (see Section 2.5.11 above) that will ensure that the project site is restored to preproject conditions, including on-site surface waters, at the end of the project's life;
- ▶ In addition to the special-status wildlife surveys set forth in Mitigation Measure BIO-1, the project applicant will conduct surveys for Swainson's Hawk, loggerhead shrike, tricolored blackbird, hoary bat, western spadefoot toad, and San Joaquin whipsnake. The project applicant will prepare a Wildlife Survey Report that documents the results of the wildlife surveys and submit the report to the County prior to construction. The survey report shall include the following information:
 - an identification of the biologist(s) conducting the surveys and their qualifications;
 - the date(s) of the wildlife surveys;
 - the times of day the surveys were conducted;
 - the locations on the project site and buffer areas that were surveyed; and
 - any other information necessary for the County to ensure compliance with state and federal laws and regulations.
- ▶ The project applicant will avoid and minimize impacts on biological resources during project construction and operation. A qualified biologist will be present during the initial site preparation and construction to ensure that significant impacts to biological resources are appropriately mitigated. All employees will be provided with information regarding all protected natural features and the artificial drainage system, explaining the area's biogeochemical, water quality, and flood conveyance functions and values, and outlining activities that are prohibited to adequately protect the channelized drainage features.
- ▶ Consistent with Mitigation Measure HM-2, the project applicant will prepare a Phase II Environmental Site Assessment prior to construction to determine whether toxic materials could be present in the soil at the project site. As noted in HM-2, the conclusions and recommendations of the Phase II Environmental Site Assessment, as well as any County recommendations made upon its review of the Phase II Environmental Site Assessment, will be incorporated into the design and construction of the proposed project.
- ▶ Consistent with Mitigation Measure HM-3, the project applicant will disclose the presence of any abandoned oil and gas exploration well on the project site, and impose a 10-foot, no-build buffer zone to ensure that impacts to workers will be minimized.
- ▶ The project applicant will implement all other Mitigation Measures set forth in this document as part of the project.

2.6 FINDINGS

An Initial Study (attached) has been prepared to assess the proposed project's potential effects on the physical environment and the significance of those effects. Based on the IS, it has been determined that the proposed project would not have any significant effects on the physical environment because mitigation measures have been included in the proposed project. These mitigation measures are intended to minimize the project's effects on air quality, biological resources, cultural resources, hydrology and water quality, geology and soils, and hazardous materials. This conclusion is supported by the following findings:

- ▶ Implementation of the proposed project would result in no significant or less-than-significant impacts to the following environmental issue areas:
 - Aesthetics
 - Air Quality
 - Agricultural and Forest Resources
 - Biological Resources
 - Cultural Resources
 - Geology and Soils
 - Greenhouse Gas Emissions
 - Hazards and Hazardous Materials
 - Hydrology and Water Quality
 - Land Use and Planning
 - Mineral Resources
 - Noise
 - Population and Housing
 - Public Services
 - Recreation
 - Transportation/Traffic
 - Utilities and Service Systems

In accordance with State CEQA Guidelines CCR Section 15064(f)(2), an MND shall be prepared if “the lead agency determines there is substantial evidence in the record that the project may have a significant effect on the environment but the lead agency determines that revisions in the project plans or proposals made by, or agreed to by, the applicant would avoid the effects or mitigate the effects to a point where clearly no significant effect on the environment would occur and there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment then a mitigated negative declaration shall be prepared.” Therefore, a proposed MND has been prepared in accordance with the State CEQA Guidelines, as amended.

2.7 PUBLIC COMMENTS ON THE RECIRCULATED IS/PROPOSED MND

The recirculated IS/proposed MND is available for a 30-day public review period beginning January 25, 2012, and ending on February 27, 2012. Written comments may be submitted by 5 p.m. on February 27, 2012 to:

Rachel Wyse
Assistant Planner
Stanislaus County Planning and Community Development
1010 10th Street, Suite 3400
Modesto, CA 95354
wyser@stancounty.com

Responding agencies, departments and citizens are encouraged to provide comments by February 27, 2012; however, comments may also be provided at the Stanislaus County Planning Commission hearing on the project scheduled for 6:00 p.m. on March 1, 2012, at the **Stanislaus County Board of Supervisors Chambers**.

This page intentionally left blank.

3 ENVIRONMENTAL CHECKLIST AND EVALUATION

1. **Project title:** Fink Road Solar Farm
2. **Lead agency name and address:**
Stanislaus County Planning and Community Development
1010 10th Street, Suite 3400
Modesto, CA 95354
3. **Contact person and phone number:** Rachel Wyse – (209) 525-6330
4. **Project location:** 4401 and 4881 Fink Road, Crows Landing, California Stanislaus County
(see Initial Study)
5. **Project sponsor’s name and address:** JKB Energy, 941 E. Monte Vista Avenue, Turlock, CA 95381
6. **General plan designation:** Agriculture
7. **Zoning:** A-2-40 & A-2-160 (General Agriculture)
8. **Description of project:** Construction of a solar energy farm. The proposed project would develop approximately 800 acres of a 1,687-acre parcel of existing agriculture land owned by Stanislaus County with standalone photovoltaic (PV) solar energy panels set on steel I-beam posts that would transmit solar power from the site into Pacific Gas and Electric Company’s (PG&E) power grid via existing off-site and onsite overhead transmission lines. The additional approximately 887 acres of the site is proposed to remain in agriculture, and would be actively developed and cultivated by an agriculture management company and partner to the project applicant. (See Initial Study).
9. **Surrounding land uses and setting: Briefly describe the project’s surroundings:** The project site is located just west of the intersection of Interstate 5 (I-5) and Fink Road. The Crows Landing Naval Air Station is located approximately two miles east of the project site, and the Fink Road Landfill is located about one half of a mile to the southeast. The project site is also surrounded by low-lying foothills to the south, east, and north that have existing agricultural and grazing land uses. (See Initial Study.)
10. **Other public agencies whose approval may be required (e.g., permits, financing approval, or participation agreement.):** The following approvals and permits would or may be required:
 - ▶ Stanislaus County Planning Commission: Use Permit for utility use on land zoned as General Agriculture (A-2-40 & A-2-160)
 - ▶ Stanislaus County Building Permits Division: Building Permit for the utility buildings, thermal steam storage facility, solar arrays, and related equipment
 - ▶ Stanislaus County Department of Public Works: Grading and Drainage Plan Permit
 - ▶ California Department of Transportation (CalTrans): Hydrology and Drainage Plan Approval
 - ▶ Central Valley Regional Water Quality Control Board: Section 401 Water Quality Certification

3.1 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by the proposed project. However, as indicated in the Environmental Checklist on the following pages, the proposed project would not result in any impact that would be considered to be a "Potentially Significant Impact." There are no long-term operational impacts and no new infrastructure associated with the proposed project. The impacts of the proposed project consist of temporary and short-term construction impacts associated with air quality, biological resources, cultural resources, geology and soils, hazardous materials, and hydrology and water quality.

Based on the IS, it has been determined that with the implementation of the proposed mitigation measures as presented in Section 3.3 below, the proposed project would not have any significant effects on the physical environment. Please note that on the Environmental Checklist, if a Mitigation Measure is needed to reduce a potentially significant or significant impact to a less-than-significant level, then the box marked "Less than Significant with Mitigation Incorporated," has been checked. All mitigation measures have been included into the proposed project and will become conditions of approval.

3.2 DETERMINATION (TO BE COMPLETED BY THE LEAD AGENCY)

On the basis of this initial evaluation:

We find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

X We find that although the proposed project COULD have a significant effect on the environment, there WILL NOT be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

We find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

We find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Francine Dunn, Principal for AECOM

1/18/2012

Prepared by:

Date

3.3 EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
4. “Negative Declaration: Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, “Earlier Analyses,” may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are Less than Significant with Mitigation Measures Incorporated, describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
 - a) the significance criteria or threshold, if any, used to evaluate each question; and
 - b) the mitigation measure identified, if any, to reduce the impact to less than significance.

3.3.1 AESTHETICS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. Aesthetics. Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

ENVIRONMENTAL SETTING

The project site is located in the northwestern portion of the San Joaquin Valley. This area of Stanislaus County (County) has historically been used for agricultural purposes such as cattle grazing, orchards, and row crops, and the area’s appearance reflects this land use history. Interstate 5 (I-5) is located directly east of the approximately 1,687 acre project site. Southbound vehicle occupants have a direct and open view of the project site to the west; orchard trees are prominently visible in much of the foreground with rolling grass-covered hills in the background. The intervening topography, including the landfill, generally blocks views of the project site for northbound travelers. According to the California Department of Transportation (Caltrans), I-5 is an officially designated state scenic highway throughout all of Stanislaus County (Caltrans 2007).

Vegetative cover of the project site varies from almond orchards to nonnative grasses, with occasional wetland vegetation. Large expanses of grassland habitat located north, west, and south of the site are currently used for livestock grazing. The higher peaks of the Diablo Range to the west form the distant background of most views from the freeway and create the visible horizon line from many viewpoints. The natural topography of the project site is flat to gently rolling in most locations. The downstream section of the channel for Little Salado Creek, an ephemeral drainage, enters the project site from the west. The creek cuts across the western edge of the project site, and a farm pond with emergent marsh vegetation is present near the south central portion of the project site.

Perhaps the most prominent feature in the visual landscape of the project area is the Fink Road Landfill. Foreground views from I-5 are dominated by the existing landfill facilities. These facilities include the Waste-To-Energy (WTE) plant, the slopes of the filled modules, and the exposed slopes of the existing soil stockpiles. The most prominent feature on the existing landfill site is the WTE plant. Because of its large size and proximity to I-5, the WTE plant can be seen from a distance by travelers on both northbound and southbound I-5. In addition to the WTE plant, the modified topography of the existing, closed landfill modules is visibly evident as a “flat-top” hill next to the freeway.

The main viewer groups with a view of the project site are motorists traveling on I-5 who would have fleeting glimpses of the project site. There are two single-family residences located on the project site, but only one is inhabited. These residences would not be occupied during project construction activities, but one would be occupied by an on-site caretaker associated with the proposed project during operation. An additional residence (Beltran Farm property) is located immediately south of the existing Fink Road Landfill off of Davis Road near I-5, however the proposed project is not visible to this residence due to the presence of the landfill facilities separating these two uses. A bull fighting arena and associated facilities is located adjacent to the southwest

corner of the project site. Visitors to the bull fighting arena facilities would have direct views of the project site along Fink Road while driving into and out of the bull fighting arena facilities; however these users would not have a direct view of the proposed project from the bull fighting arena facilities due to views being blocked by existing topography. There are few other off-site sensitive receptors in the project area that would be affected by changing views of the project site, as the nearest residential area is Crows Landing, located approximately 4 miles to the east. Crows Landing is a small agriculturally-oriented community that includes the Crows Landing Naval Air Station, located approximately 2 miles northeast of the project site. Views of the expansion site are not available from Crows Landing because of the distance and intervening topography and vegetation.

DISCUSSION

a) Have a substantial adverse effect on a scenic vista?

Less-than-Significant Impact. The project site is located between I-5 and the foothills and higher peaks in the Diablo Range to the west. Current views of the project site are fairly consistent with the general character and feeling of the area. Construction activities associated with the solar energy farm would be temporary and short-term and would affect views for motorists for a finite amount of time (approximately 5 years). However, only phases 1, 4, and 6 are positioned in close proximity to I-5, consequently during and after construction these would be the only phases visible by motorists on the highway. However the project description includes keeping the first five rows of the existing almond trees on the west side of, and paralleling I-5, as this area is not part of the proposed project. These orchard tree rows (approximately 100 feet wide) would provide visual screening of the project site from I-5. The vegetative screening would keep the original feel and character of the project site for motorists viewing the project site. Also, the viewers driving through the area would receive temporary, fleeting views of the proposed solar energy farm due to the speed at which vehicles pass the project site on I-5. In addition, the visual character of the project site would not be permanently changed as project components (i.e., utility buildings, security fencing, tracking arrays) would be decommissioned and removed upon expiration of the solar energy farm's equipment life. For these reasons, this impact would be less than significant. No mitigation is required.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Less-than-Significant Impact. As mentioned above, I-5 is an officially designated state scenic highway in Stanislaus County. Construction activities associated with the proposed project would be temporary and short-term and would affect views for motorists for a limited amount of time. Once constructed, the solar tracking arrays on phases 1, 4, and 6 and security fencing would be visible from I-5, but the vegetative screening described above would provide a visual buffer. Motorists traveling I-5 would continue to see the existing agricultural uses on the project site. As described in discussion item a) above, the existence of this buffer would keep the original feel and character of the project area for motorists on I-5. In addition, the viewers driving through the area would receive very temporary, fleeting views of the solar energy farm. The visual character of the project site would not be permanently changed as project components (i.e., utility buildings, security fencing, tracking arrays) would be decommissioned and removed upon expiration of the solar energy farm's equipment life. Therefore, implementation of the proposed project would not substantially damage scenic resources within the Caltrans-designated scenic highway. This impact is less than significant. No mitigation is required.

c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Less-than-Significant Impact. As described above under discussion item a), only fleeting glimpses would be available of the proposed solar energy farm, and the proposed vegetative screening would minimize changes in the visual character of the project site and surroundings. Motorists traveling I-5 would continue to see the existing agricultural uses on the project site, and therefore the vegetative screen would minimize alterations in the visual

character of the site. The project would be consistent with the character and quality of views along I-5. Furthermore, the visual character of the project site would not be permanently changed as project components (i.e., utility buildings, security fencing, tracking arrays) would be decommissioned and removed upon expiration of the solar energy farm's equipment life. No further mitigation is required.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less-than-Significant Impact. The proposed project is a solar energy farm and would not require any lighting for operation at night. During the day, the reflectivity of the solar panels would be similar to surfaces currently present on the project site. For example, solar panels have a reflectivity of about 30% while vegetation like grass has a reflectivity of 25% (State of Oregon 2010). In addition, as stated in the project description, the solar photovoltaic panels would be manufactured with an anti-reflective coating that would further eliminate glare. It is for these reasons that the proposed project would not create a new source of substantial light or glare to motorists traveling on I-5, or create a new source of nighttime lighting that would affect skyglow. Furthermore, the visual character of the project site would not be permanently changed as the solar panels would be decommissioned and removed upon expiration of the solar energy farm's equipment life. This impact would be less than significant. No mitigation is required.

3.3.2 AGRICULTURAL AND FOREST RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. Agricultural and Forest Resources.				
<p>In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997, as updated) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.</p> <p>Would the project:</p>				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

ENVIRONMENTAL SETTING

The project site and surrounding areas are characterized by rolling hills, active and fallow agricultural land, a municipal landfill, a bull fighting arena with associated facilities, and transportation uses. Foothills abut the project site to the north, south, and west, and I-5 borders the site to the east. Within the project site, approximately 1,040 acres are in active agricultural production including 695 acres planted in dry land farming (most recently planted in oats) and 345 acres planted with almond trees. The remaining 647 acres is currently inactive agricultural lands. There are about 134,000 acres of almond crops and about 2,200 miscellaneous field crops, which includes

barley, in production in Stanislaus County (County). On average, the County produced 1.09 tons of almonds per acre in 2008 (Stanislaus County Department of Agriculture [SCDA] 2009). In 2008, the project site produced approximately 1.02 tons of almonds per acre (Aggers, pers. comm., 2010). Thus, the almonds trees are producing at a level below the County's average annual production per acre. Approximately 800 of the 1,687-acre project site would be converted from agricultural uses to a solar energy farm, while the remaining 887 acres would remain in active agricultural production. In addition, the existing orchards do not currently have an adequate and sustainable water source to support the current number of acres in production. See Section 3.3.17, "Utilities and Services Systems," for further discussion on the current and long-term water supply for current agricultural uses.

The State of California's Farmland Mapping and Monitoring Program (FMMP), which was established by the California Department of Conservation (CDC), provides data on Important Farmland for counties in the state. The FMMP identifies areas of Prime Farmland or Farmland of Statewide Importance within the state, for land that meets two criteria: (1) production of farmland within the last four years prior to the mapping date, and (2) the soil must meet the physical and chemical criteria for Prime Farmland or Farmland of Statewide Importance as determined by the United States Department of Agriculture Natural Resources Conservation Service. Important Farmland classifications are updated every two years by the FMMP, based on soil quality and irrigation status, aerial photographs, computer mapping information, public review, and field reconnaissance. A majority of the project site includes lands designated as "Prime Farmland, Unique Farmland, and Farmland of Statewide Importance."

No land within the project site is currently under a Williamson Act contract.

The project site is located in the San Joaquin Valley, therefore no forest resources exist on the project site or vicinity.

DISCUSSION

a) **Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

Less-than-Significant Impact. The proposed project would be located on land that is designated as Prime Farmland, Unique Farmland, and Farmland of Statewide Importance. Implementation of the proposed project would convert up to 800 acres of Important Farmland to solar energy use for the duration of the lease (expiration of the solar energy farm's equipment life). It should be noted that the decommissioning plan that would be included as part of the proposed project would ensure that the project site would be returned to preproject conditions upon conclusion of solar energy farming activities. As such, this conversion does not constitute a "permanent" conversion.

It should also be noted that the designation of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance does not necessarily indicate that lands are viable for agricultural production. As described above, the existing almond orchard is currently producing below the County's average yield because the site lacks an adequate and long-term reliable water supply. Because an adequate water supply cannot be secured for the entire site, all areas designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance within the project site will no longer be economically viable for use as agricultural land uses because no certain long-term water supply is available to irrigate the entire site (see Section 3.3.17, "Utilities and Service Systems," for further discussion). In order for long-term irrigation to be available at the project site, the County would need to secure water through the Del Puerto Water District (District). The District's water supplies are subject to the imposition of annual shortages. Since 1992, supplies have diminished gradually due to legislative and judicial rulings. District supplies are estimated to be at 35% of their original quantities from the time the District was formed (Email correspondence from J. Aggers, Stanislaus County, 2010). The proposed project would cease operation upon expiration of the solar energy farm's equipment life. At that time, the solar energy farm equipment and

facilities would be dismantled and removed, recycled to the greatest extent feasible, and the land would revert back to agricultural uses. Thus, the conversion of farmland would not be permanent.

For these reasons, the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance would be a less-than-significant impact. No mitigation is required.

b) Conflict with existing zoning for agricultural use or a Williamson Act contract?

Existing Zoning

Less-than-Significant Impact. The project site is zoned A-2-40 and A-2-160 (General Agriculture) by the County, which permits agricultural and single-family residential uses. Facilities for public utilities, such as the proposed solar energy farm would require a conditional use permit (Stanislaus County Zoning Ordinance, Section 21.20.030).

The proposed project would not conflict with existing A-2 zoning for the project site because project approval would require issuance of a conditional use permit and a solar energy farm is considered a compatible and allowed use under this zoning designation. As discussed above, through implementation of the decommissioning plan, the land would revert back to agricultural uses when solar energy farm equipment and facilities are removed at the end of project operations (expiration of the solar energy farm's equipment life). This is consistent with the County's Tier Three uses outlined in Section 2.4.1. Thus, the conversion of farmland would not be permanent. This impact would be less than significant. No mitigation is required.

Williamson Act Contract

No Impact. The project site is not on land that is currently under a Williamson Act contract. Therefore, the proposed project would not conflict with an existing Williamson Act contract. There would be no impact. No mitigation is required.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Impact. As indicated in item b) above, the proposed project site is zoned A-2 and the land would revert back to agricultural uses at the end of project operations. No forest land or timberland are present on the project site. For this reason, there would be no impact. No mitigation is required.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. The project site is in active agricultural use and is currently planted with almond trees and barley fields. As discussed above, no forest land is present on the project site. Therefore, there would be no impact. No mitigation is required.

e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

Agricultural Land

Less-than-Significant Impact. Portions of the project site would be converted from agriculture to utility infrastructure (solar energy) use. However, this conversion would not be permanent as the land would be leased by the County to the project applicant and the property returned to active agricultural production at the end of the

solar energy farm's equipment life. This is consistent with the County's Tier Three uses outlined in Section 2.4.1. A portion of the site (887 acres) would continue in agricultural production, which includes almond orchards and barley fields. As indicated in items a) and b) above, portions of the project site that are currently planted with almond trees are producing below standard, because the existing orchard does not currently have an adequate water allocation to sustain it over the long term. The proposed project would introduce a short-term land use that is permitted by the existing A-2 zoning designation with issuance of a conditional use permit. For these reasons, the proposed project would have a less-than-significant impact on farmland conversion. No mitigation is required.

Forest Land

No Impact. There are no forest lands on the project site. Therefore, implementation of the proposed project would have no impact on the conversion of forest land. No mitigation is required.

3.3.3 AIR QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
III. Air Quality.				
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied on to make the following determinations.				
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

ENVIRONMENTAL SETTING

The project site is located approximately 3.5 miles west of the town of Crows Landing in Stanislaus County, which lies within the San Joaquin Valley Air Basin (SJVAB) and is under the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD). At the federal level, the U.S. Environmental Protection Agency (EPA) is charged with implementing national air quality programs. The EPA's air quality mandates are drawn primarily from the federal Clean Air Act (CAA). The CAA required the EPA to establish primary and secondary national ambient air quality standards (NAAQS). Areas within the country that have air pollution concentrations above the thresholds identified in the NAAQS are designated as nonattainment. There are six air pollutants that typically are used to determine an area's air quality, these pollutants are referred to as the criteria pollutants. The criteria pollutants are particle pollution (often referred to as particulate matter), ground-level ozone, carbon monoxide, sulfur oxides, nitrogen oxides, and lead. The California Air Resources Board (ARB) has established California ambient air quality standards (CAAQS) for sulfates, hydrogen sulfide, vinyl chloride, visibility-reducing particulate matter, and the above-mentioned criteria air pollutants. In most cases the CAAQS are more stringent than the NAAQS. Differences in the standards are generally explained by the health effects studies considered during the standard-setting process and the interpretation of the studies. With respect to ozone, the SJVAB is currently designated to be in severe nonattainment for the state 1-hour standard and serious nonattainment area for the federal 8-hour standard. The SJVAB is also designated as a nonattainment area with respect to the state (nonattainment) PM₁₀ (i.e., respirable particulate matter with an aerodynamic diameter of 10 micrometers or less), and nonattainment for the federal and state PM_{2.5} (i.e., respirable particulate matter with an aerodynamic diameter of 2.5 micrometers or less) standard. The SJVAB has either attained all other air quality standards, or has not been classified as being in nonattainment, generally indicating that attainment would be likely if sufficient data were collected.

Air quality regulations also focus on toxic air contaminants (TACs), or in federal terminology, hazardous air pollutants (HAPs). In general, for those TACs that may cause cancer, there is no concentration that does not present some risk. In other words, there is no threshold level below which adverse health impacts may not be expected to occur. This contrasts with the criteria air pollutants for which acceptable levels of exposure can be determined and for which ambient standards have been established. Instead, the EPA and ARB regulate TACs, respectively, through statutes and regulations that generally require the use of the maximum or best available control technology for toxics (MACT and BACT) to limit emissions. These in conjunction with additional rules set forth by SJVAPCD establish the regulatory framework for TACs.

The project site is agricultural use. Sources of air pollutants include regional transport (particularly for ozone), and PM₁₀ from local, regional farming operations and the landfill immediately to the southeast. There is one inhabited residence on site, located in the southwest portion of the property. The proposed project site is within a quarter of a mile of the I-5 and just northwest of the Fink Road Landfill. The ARB has identified both major transportation corridors and landfills as potential sources for HAPs as well as odors. The existing residence is not associated with the proposed project, is not expected to be occupied during construction or operation of the proposed project, and therefore not a new receptor. The existing residence's association with the I-5 or the Fink Road Landfill will not be evaluated as part of the study. The project as proposed does not include new receptors.

DISCUSSION

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less-than-Significant with Mitigation. The proposed project would result in construction of a solar energy farm to serve existing and proposed new users. The proposed project would have minimal construction consisting of six small buildings (one for each project phase, except Phase 1 which would also include the thermal steam storage facility), ground mounted switch gear equipment, a network of access roads, installation of the solar tracking arrays mounted on steel I-beam posts, security fencing, and utility (electrical line) trenching. Approximately 7,000 steel I-beam posts for the solar photovoltaic panels would be pushed into the ground using a hydraulic driver. The proposed project would use dust-inhibiting recycled surface material for all the access roads. The operational activities associated with the proposed project would mostly be handled remotely except the cleaning of the solar photovoltaic panels. The solar photovoltaic panels would be cleaned quarterly using a water truck fitted with a boom. It is proposed that the truck and water for the cleaning would come from the city of Modesto, approximately 17 miles northeast of the project site. The proposed project has been evaluated for consistency with SJVAPCD significance thresholds (as described below), and would not exceed any of the significance thresholds. The proposed project also includes all relevant mitigation requirements that are contained within the SJVAPCD Air Quality Attainment Plan (AQAP) and would comply with SJVAPCD Air District regulations. The proposed project was evaluated using the SJVAPCD's *Guide for Assessing and Mitigating Air Quality Impacts* (GAMAQI). Because the proposed project would not produce any emissions above the SJVAPCD's thresholds of significance, would implement all required SJVAPCD mitigation and would comply with all SJVAPCD regulations, and would not facilitate growth beyond what is already adopted in local plans (which are included as a basis for the AQAP), the proposed project would not conflict with or obstruct the SJVAPCD AQAP. With implementation of Mitigation Measures AQ-1, AQ-2, and AQ-3, this impact would be reduced to a less than significant level. No further mitigation is required.

- ▶ **Mitigation Measure AQ-1.** Implement all feasible fugitive dust control requirements of the San Joaquin Valley Air Pollution Control District (SJVAPCD), Regulation VIII. The following measures shall be implemented to reduce PM₁₀ exhaust emissions and further reduce the already less-than-significant impacts associated with ROG and NO_x emissions:
 - Provide commercial electric power to the project site in adequate capacity to avoid or minimize the use of portable electric generators and any other equipment.

- Where feasible, substitute electric-powered equipment for diesel engine driven equipment, or implement the use of diesel particulate traps.
 - When not in use, avoid idling of on-site equipment.
 - Where feasible, avoid operation of multiple pieces of heavy duty equipment.
 - Require contractors to use the best available emission reduction and economically feasible technology on an established percentage of the equipment fleet. It is anticipated that in the near future PM₁₀ control equipment will be available. The SJVAPCD shall be consulted with on this process. This requirement shall be included in construction bid specifications.
- ▶ **Mitigation Measure AQ-2.** Comply with SJVAPCD's Regulation VIII-Fugitive Dust Prohibitions and implement the following applicable control measures, as required by law:
- An owner/operator shall submit a Dust Control Plan to the Air Pollution Control Officer (APCO) prior to the start of any construction activity on any site that will include 5 acres or more of disturbed surface area for non-residential development, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials. Construction activities shall not commence until the APCO has approved or conditionally approved the Dust Control Plan. An owner/operator shall provide written notification to the APCO within 10 days prior to the commencement of earthmoving activities via fax or mail. The requirement to submit a dust control plan shall apply to all construction related activities conducted at the project site.
 - The owner/operator shall submit a construction notification form to the APCO at least 48 hours prior to the start of any construction activity on the project site that includes greater than one acre of disturbed surface area.
- ▶ **Mitigation Measure AQ-3.** Implement SJVAPCD-recommended enhanced and additional control measures to further reduce fugitive PM₁₀ dust emissions from public roadways.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways from adjacent project areas with a slope greater than 1% in accordance the project's Stormwater Pollution Prevention Plan (SWPPP), which conforms with the required elements of the General Permit No. CAS000002 issued by the State of California, State Water Resources Control Board.
 - The area encompassing the San Joaquin Valley Air Basin (SJVAB) boundary is also classified as nonattainment for PM_{2.5}. The SJVAPCD approach for achieving attainment of the PM_{2.5} standard is has two components. The first component is that the existing PM₁₀ reduction strategies will reduce the fugitive component of PM_{2.5} emissions within the SJVAPCD. The second component is to address the indirect formation of PM_{2.5}. As with ozone NO_x is a precursor of PM_{2.5} so the district reduction strategies for the reduction of NO_x throughout the basin will also reduce the formation of PM_{2.5}. In addition since the emissions estimate for PM₁₀ was compared to PM_{2.5} thresholds; if PM₁₀ emissions estimates are below the PM_{2.5} thresholds then PM_{2.5} must also be below the threshold. The proposed project shall be required to comply with the SJVAPCD's Regulation VIII (SJVAPCD 2009) control measures for construction emissions of PM₁₀. One of these control measures includes the use of water with all "land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities" for fugitive dust suppression. Compliance with SJVAPCD Regulation VIII will further reduce emissions.

b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less-than-Significant with Mitigation. See the discussion in item a), above. The proposed project would result in temporary and short-term construction emissions and inconsequential operational emissions. The GAMAQI, which specifies methodologies for air quality analysis as part of the program to ultimately achieve attainment with the AQAP and air quality standards, includes thresholds of significance for criteria pollutants. Appendix B includes an analysis of the proposed project's impacts in comparison to these thresholds. Ozone precursors are emissions that, when they interact with sunlight, contribute to ozone creation and pollution. During construction and operation, the proposed project would generate both reactive organic gases (ROG) and oxides of nitrogen (NO_x), both of which are ozone precursors. The GAMAQI has established a threshold of 10 tons per year (tpy); projects that exceed this level would result in significant air quality impacts. Sacramento Metropolitan Air Quality Management District's (SMAQMD) Road Construction Emissions Model Version 5.1 (SMAQMD 2003) was used to quantify construction emissions from the proposed road construction. The Road Construction Emissions Model was developed by the SMAQMD to assess emissions from linear projects, and recommended for use by SJVAPCD personnel (Barber; pers. com, 2010). The URBEMIS2007 computer model was used to quantify air emissions generated during each project construction phase (grading, construction, and trenching) of the proposed project. URBEMIS2007 is a land use and transportation based computer model to estimate regional air emissions from new development projects. The model accounts for specific meteorological conditions that characterize each specific air basin in California. Emission factors for construction equipment, embedded in the URBEMIS2007 model, are obtained from the California Air Resources Board (ARB) vehicle emission inventory. URBEMIS2007 calculates volatile organic compounds (VOC), NO_x, carbon dioxide (CO), sulfur oxides (SO_x), and exhaust and fugitive PM₁₀ and PM_{2.5} from mobile and area sources of air pollutants associated with construction and operation of a project, as well as off-gassing of VOC from architectural coatings used on the utility buildings. URBEMIS2007 includes an in-depth approach to estimating construction-related emissions. During construction, the proposed project would generate 0.16 tpy of ROG and 1.2 tpy of NO_x, less than the established SJVAPCD threshold of significance. Further the mitigation required by SJVAPCD Regulation VIII for reduction of PM₁₀ (see discussion which follows), would also reduce both ROG and NO_x emissions. During operations, the proposed project would only generate emissions from the cleaning of the panels. The operational emissions calculated for the proposed project are 0.06 tpy of ROG and 0.69 tpy of NO_x, less than the established SJVAPCD threshold of significance. The impact from ROG and NO_x would, therefore, be less than significant.

CO concentration is a direct function of motor vehicle activity, particularly during peak commute hours, and meteorological conditions. Under specific meteorological conditions, CO concentrations may reach unhealthy levels with respect to local sensitive land-uses such as residential areas, schools, and hospitals. As a result, SJVAPCD recommends analysis of CO emissions at a local rather than a regional level. SJVAPCD has established preliminary screening criteria to determine with fair certainty that if not violated project-generated long-term operational local mobile-source emissions of CO would not result in or substantially contribute to emissions concentrations that exceed the 1-hour ambient air quality standard of 20 parts per million (ppm) or the 8-hour standard of 9 ppm, respectively. There are not any anticipated changes to the local traffic from the implementation of the proposed project. As a result, this impact would be less than significant.

Fugitive dust emissions, including PM₁₀, are associated primarily with ground disturbance during site preparation and vary as a function of such parameters as soil silt content, soil moisture, wind speed, acreage of disturbance area, and vehicle miles traveled (VMT) on- and off-site. Exhaust emissions from employee commute trips and diesel mobile construction equipment also contribute to temporary and short-term increases in PM₁₀ emissions but to a much lesser extent (see Appendix B).

Construction of the proposed project would primarily result in the temporary and short-term generation of fugitive PM₁₀ dust emissions from site preparation (e.g., excavation, grading, and clearing). SJVAPCD's approach to CEQA analyses of construction-generated fugitive PM₁₀ dust emissions is to require implementation of effective and comprehensive control measures rather than a detailed quantification of construction emissions. SJVAPCD's-

required control measures are incorporated in the proposed project as Mitigation Measures AQ-1, AQ-2 and AQ-3. Temporary and short-term construction-generated PM₁₀ emissions would not result in or substantially contribute to emissions concentrations that exceed the California Ambient Air Quality Standards (CAAQS), especially considering the current nonattainment status of the air basin.

Upon expiration of the solar energy farm's equipment life, the project would be decommissioned. The decommissioning process would include removal of all solar tracking arrays and facilities. It can be assumed that less heavy equipment would be needed to decommission the solar tracking arrays and facilities than was used to perform the construction. It can also be assumed that the construction equipment for the decommissioning would be required to meet all current and any future emissions regulations. The current diesel emissions target set by the ARB is that all off road diesel equipment will meet imposed limits on idling, buying older off-road diesel vehicles, and selling vehicles beginning in 2008; requires all vehicles to be reported to ARB and labeled in 2009; and then in 2010 begins gradual requirements for fleets to clean up their fleet by getting rid of older engines, using newer engines, and installing exhaust retrofits. The overall purpose of the regulation is to reduce emissions of oxides of nitrogen (NO_x) and particulate matter (PM) from off-road diesel vehicles. It is also anticipated that future heavy equipment would meet these and even more stringent emissions regulations, and therefore the decommissioning of the proposed project's facilities would have lower associated emissions than the construction fleet outlined in the above analysis.

Implementation of Mitigation Measures AQ-1, AQ-2, and AQ-3 would reduce temporary and short-term air quality construction impacts to less-than-significant levels. No further mitigation is required.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

Less-than-Significant with Mitigation. As discussed in b) above, project implementation would not result in long-term operational ROG, NO_x, PM₁₀, or CO emissions that would result in or contribute substantially to an air quality violation. However, implementation of the proposed project would result in temporary and short-term construction emissions that could contribute to an existing or projected air quality violation, especially considering the SJVAB's nonattainment status for ozone and PM_{2.5}. Thus, construction-generated PM₁₀ emissions could result in a cumulatively considerable net increase of a criteria pollutant for which the project region is nonattainment under applicable federal or state ambient air quality standards. Implementation of Mitigation Measures AQ-1, AQ-2, and AQ-3 would reduce temporary and short-term construction-generated emissions to a less-than-significant level.

The proposed project would emit substantially lower greenhouse gas emissions (GHG) per megawatt-hour than fossil-fueled generation resources in California. The proposed project, as a renewable energy generation facility, is determined by rule to comply with the Greenhouse Gas Emission Performance Standard requirements of SB 1368 (Chapter 11, Greenhouse Gases Emission Performance Standard, Article 1, Section 2903 [b][1]). (Refer to Section 3.3.7, "Greenhouse Gas Emissions" for further discussion associated with the proposed project's generation of GHG emissions.). No further mitigation is required.

d) Expose sensitive receptors to substantial pollutant concentrations?

Less-than-Significant with Mitigation. As discussed in b) above, project implementation would not result in long-term operational ROG, NO_x, PM₁₀, or local CO emissions that would result in or contribute substantially to an air quality violation. Temporary and short-term construction emissions could violate or contribute substantially to an existing or projected air quality violation. Thus, construction-generated PM₁₀ emissions could expose sensitive receptors to substantial pollutant concentrations. Implementation of Mitigation Measures AQ-1, AQ-2,

and AQ-3 would reduce temporary and short-term construction-generated emissions to a less-than-significant level. Therefore, this impact would be less than significant.

Toxic Air Contaminant Emissions

There would be no long-term mobile or stationary sources of construction emissions associated with the proposed project. The only potential for TAC emissions would be temporary and short-term in nature, and are discussed below.

Temporary and Short-Term Construction Sources

Less-than-Significant Impact. Construction of the proposed project would result in temporary and short-term diesel exhaust emissions from on-site heavy duty equipment. Particulate exhaust emissions from diesel-fueled engines (diesel PM) were identified as a TAC by the ARB in 1998. Construction of the proposed project would result in the generation of diesel PM emissions from the use of off-road diesel equipment required for site grading and excavation, and other construction activities. According to the ARB, the potential cancer risk from the inhalation of diesel PM, as discussed below, outweighs the potential non-cancer health impacts (ARB 2003).

The dose to which receptors are exposed is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the maximally exposed individual. Thus, the risks estimated for a maximally exposed individual are higher if a fixed exposure occurs over a longer period of time. According to the Office of Environmental Health Hazard Assessment (OEHHA), health risk assessments, which determine the exposure of sensitive receptors to TAC emissions, should be based on a 70-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the project. Thus, because the use of mobilized equipment would be temporary in combination with the dispersive properties of diesel PM (Zhu and Hinds 2002) and that project construction activities would not be atypical in comparison to similar development-type projects (i.e., no excessive material transport or associated truck travel), temporary and short-term construction activities would not expose sensitive receptors to substantial TAC concentrations. This is especially true because there are no sensitive receptors near the project site. Although there are two existing residences on-site, one of which is currently inhabited, the residences would not be occupied during construction or operation of the proposed project. Therefore, there is no potential for construction-related TAC emissions to affect sensitive receptors and this impact would be less-than-significant. No mitigation is required.

e) Create objectionable odors affecting a substantial number of people?

Less-than-Significant Impact. The occurrence and severity of odor impacts depend on numerous factors, including the nature, frequency, and intensity of the source; wind speed and direction; and the presence of sensitive receptors. Although offensive odors rarely cause any physical harm, they can be unpleasant and a nuisance, leading to citizen complaints.

Project implementation would not result in any major sources of odor and the project type is not one of the common types of facilities that are known to produce odors (e.g., landfill, food processing facility, wastewater treatment plant). In addition, the diesel exhaust from the use of on-site construction equipment would be intermittent and temporary, and would dissipate rapidly from the source with an increase in distance. Finally, as previously noted, there are few off-site sensitive receptors in the project site and vicinity. The existing on-site residences would not be occupied during construction and operation of the proposed project. No sensitive receptors would be subjected to offensive odors since the project would not generate odors. Thus, project implementation would not create objectionable odors affecting a substantial number of people. As a result, this impact is considered less than significant. No mitigation is required.

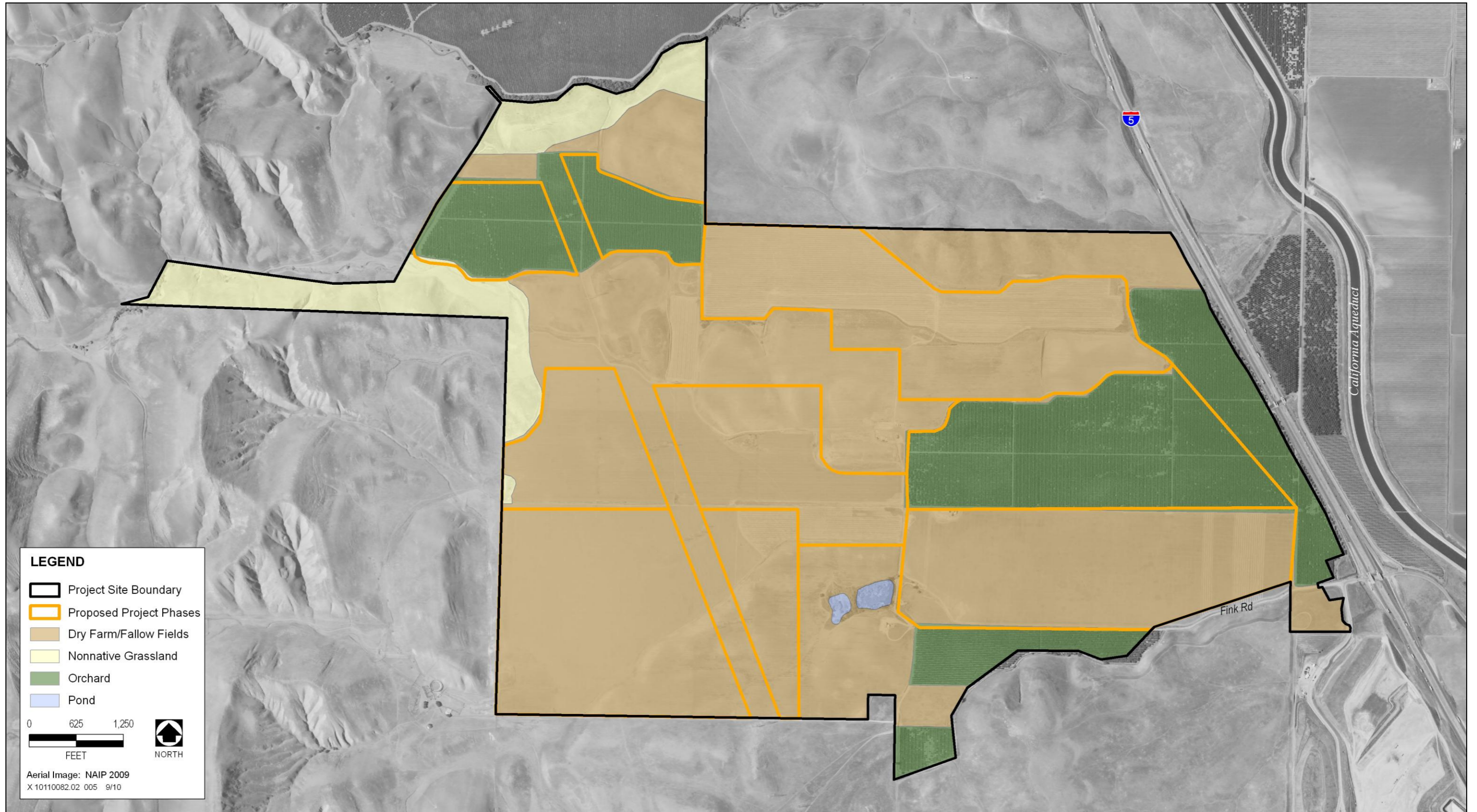
3.3.4 BIOLOGICAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. Biological Resources. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ENVIRONMENTAL SETTING

The biological investigation for the proposed project is based on data collected during a reconnaissance-level field survey and review of existing information pertinent to sensitive biological resources known to occur in the vicinity of the project site. The purpose of the field survey, conducted on March 18, 2010 by an AECOM biologist, was to evaluate the site for its potential to support special-status species and sensitive habitats.

All five phases of the project are proposed on land that is currently in dry farm production or planted with almond trees; nonnative grassland habitat (herbaceous, annual grasses that have been primarily introduced from Europe), and a farm pond with emergent marsh vegetation are present on portions of the project site not proposed for solar energy farm development (refer to Exhibit 3-1). Grasslands in all but the extreme western portion of the site, which is not proposed for any project-related construction, have been previously tilled as part of past agricultural uses. Large expanses of grassland habitat located north, west, and south of the site are currently used for livestock grazing. All grassland habitat in the project area is dominated by nonnative, herbaceous plants that are common throughout this region of California. The project site does not support any native plant communities and no natural wetland features are present in areas proposed for project development. The downstream section of the



Source: AECOM 2010

Biological Habitat Types in the Project Site

Exhibit 3-1

channel for Little Salado Creek, an ephemeral drainage, cuts across the western edge of the project site. The section of Little Salado Creek that runs through the eastern half of the project site has been previously realigned over time during agricultural operations to facilitate agricultural uses. Irrigation and other surface water in the project site and vicinity is conveyed via excavated drainage ditches.

Sensitive Biological Resources

Sensitive biological resources evaluated below include special-status plants and animals, and sensitive habitats. The California Natural Diversity Database (CNDDDB), maintained by the California Department of Fish and Game (DFG), was used as the primary source of information on sensitive biological resources previously reported in the vicinity of the project site. The CNDDDB is the most current and reliable tool for tracking occurrences of special-status species in California; however, because the CNDDDB only includes previously documented occurrences, the search results should not be considered as a comprehensive list of special-status species that could occur in the project site and vicinity.

Special-status Species

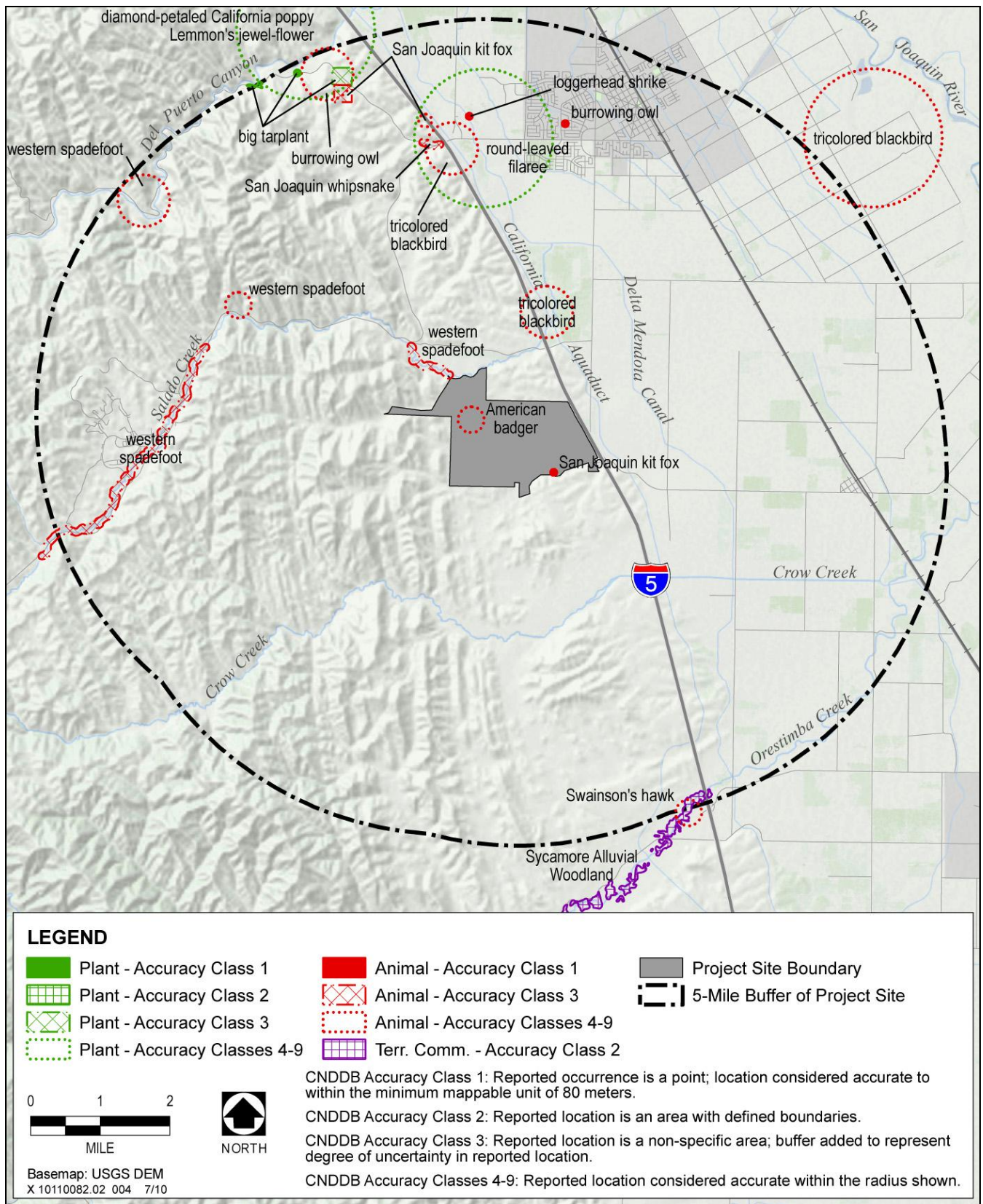
Special-status species include plants and animals designated as follows:

- ▶ plant and wildlife species listed and proposed for listing under the federal Endangered Species Act (ESA) and/or the California Endangered Species Act (CESA);
- ▶ wildlife species identified by DFG as fully protected and/or California species of special concern; and
- ▶ plants considered by the California Native Plant Society (CNPS) to be rare, threatened, or endangered.

Table BIO-1 includes special-status species that could occur in the project site based on information obtained from the CNDDDB (2010), the result of the reconnaissance-level field survey, and review of aerial photographs to evaluate potential habitat suitability (NAIP 2009). Because no focused or protocol-level field surveys were conducted as part of this evaluation, no conclusive determination can be made at this time regarding the presence or absence of special-status plants and animals listed in table. Special-status species previously reported to the CNDDDB within 5 miles of the project site are shown on Exhibit 3-2.

Two listed species have been documented within 5 miles of the project site: San Joaquin kit fox and Swainson's hawk. Although no nearby occurrences have been reported, the valley elderberry longhorn beetle, which is federal listed as threatened, is also addressed below because the project site is within its current range and suitable habitat may be present. No threatened or endangered plant species have been reported within 5 miles of the project site.

The San Joaquin kit fox is listed as federal endangered and state threatened. There is one CNDDDB occurrence of this species reported from the project site. On April 11, 1989, a kit fox was observed 0.75-mile southwest of the I-5/Fink Road interchange during nocturnal wildlife surveys (CNDDDB 2010). This is considered an isolated occurrence because western Stanislaus County is not known to support a stable kit fox population and very few confirmed sightings have been reported elsewhere in the County. According to a recent publication by the Endangered Species Recovery Program (ESRP), the nearest known stable kit fox population is located just south of Santa Nella, in Merced County (ESRP 2009). Although no focused kit fox surveys have been conducted as part of this analysis, based on review of the available information and the reconnaissance survey, the project site is not expected to be currently occupied or otherwise important habitat for this species. Recent studies indicate that the viability, and even the presence, of kit fox populations north of Santa Nella is questionable (ESRP 2009). It should also be noted that while it has been suggested previously that the project site is located near a north-south kit fox movement corridor (Shaw Environmental, Inc. 2009), this conclusion has not been substantiated using survey results or other scientific data.



Source: CNDDDB 2010

Special-status Species Occurrences within 5-Mile Search Radius

Exhibit 3-2

**Table BIO-1
Special-Status Species Previously Documented in the Vicinity of the Project Site**

Species	Habitat	Status	Potential for Occurrence On-site
Plants			
Diamond-petaled California poppy <i>Eschscholzia rhombipetala</i>	Valley and foothill grasslands	CNPS: 1B	Not expected to occur. Habitat suitability on the project site is considered low. No recent occurrences documented from the immediate vicinity of the project site.
Lemmon's jewelflower <i>Caulanthus coulteri lemmonii</i>	Pinyon and juniper woodland, valley and foothill grasslands	CNPS: 1B	Not expected to occur. Habitat suitability on the project site is considered low. No recent occurrences documented from the immediate vicinity of the project site.
Big tarplant <i>Blepharizonia plumosa plumosa</i>	Valley and foothill grasslands	CNPS: 1B	Not expected to occur. Habitat suitability on the project site is considered low. No recent occurrences documented from the immediate vicinity of the project site.
Round-leaved filaree <i>Erodium macrophyllum</i>	Valley and foothill grasslands and woodlands	CNPS: 2	Not expected to occur. Habitat suitability on the project site is considered low. No recent occurrences documented from the immediate vicinity of the project site.
Invertebrates			
Valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	Elderberry shrubs	Fed: T	Could occur. No elderberry shrubs identified on-site during reconnaissance survey but suitable potential habitat for elderberry shrubs is present. No recent occurrences documented from the immediate vicinity of the project site.
Amphibians and Reptiles			
Western spadefoot <i>Scaphiopus hammondii</i>	Vernal pools and other seasonal ponds in valley and foothill grasslands	CA: SSC	Not expected to occur. Habitat suitability on the project site is considered low. Known to occur in the immediate vicinity of the project site.
San Joaquin whipsnake <i>Masticophis flagellum ruddocki</i>	Grasslands and oak woodlands	CA: SSC	Could occur. Habitat suitability on the project site is considered moderate. No recent occurrences documented from the immediate vicinity of the project site.
Birds			
Western burrowing owl <i>Athene cunicularia hypugea</i>	Grasslands, agricultural land, and open woodlands	CA: SSC	Could occur. Habitat suitability on the project site is considered moderate. No recent occurrences documented from the immediate vicinity of the project site.
Swainson's hawk <i>Buteo swainsoni</i>	Grasslands and agricultural land	CA: T	Could occur. Habitat suitability on the project site is considered moderate. No recent occurrences documented from the immediate vicinity of the project site.
Loggerhead shrike <i>Lanius ludovicianus</i>	Grasslands and open scrub	CA: SSC	Expected to occur. Habitat suitability on the project site is considered high. No recent occurrences documented from the immediate vicinity of the project site.
Tricolored blackbird <i>Agelaius tricolor</i>	Freshwater marsh and grasslands	CA: SSC	Could occur. Habitat suitability on the project site is considered moderate. Known to occur in the immediate vicinity of the project site.

**Table BIO-1
Special-Status Species Previously Documented in the Vicinity of the Project Site**

Species	Habitat	Status	Potential for Occurrence On-site
Mammals			
San Joaquin kit fox <i>Vulpes macrotis mutica</i>	Grasslands and open scrub	CA: T Fed: E	Not expected to occur. Although one individual was previously reported from the project site, habitat suitability on-site is considered low. No recent occurrences documented from the immediate vicinity of the project site.
American badger <i>Taxidea taxus</i>	Grasslands, oak woodland, and open scrub	CA: SSC	Expected to occur. Habitat suitability on the project site is considered moderate. One occurrence previously reported from the project site.
Notes:			
California Native Plant Society (CNPS):			
1B	=	plants rare, threatened, or endangered in California and elsewhere	
2	=	plants rare, threatened, or endangered in California, but more common elsewhere	
California Department of Fish and Game (CA):		U.S. Fish and Wildlife Service (Fed):	
E	=	state listed as endangered	E = federally listed as endangered
T	=	state listed as threatened	T = federally listed as threatened
SSC	=	California Species of Special Concern	
Source: CNDDDB 2010			

The Swainson’s hawk is listed as a state threatened species. The CNDDDB includes one nesting occurrence within 5 miles of the project site, which is located near the western edge of this species’ breeding range. Swainson’s hawks are not expected to nest in the project site due to the absence of suitable nesting trees and the limited availability of suitable foraging habitat; orchards are not considered suitable foraging habitat for this species. Swainson’s hawk could use dry farm land and grasslands in the project site for foraging, however, higher quality foraging and nesting habitat is widely distributed east of the project site. High-quality foraging habitat for Swainson’s hawks east of I-5 includes alfalfa fields in close proximity to trees that are suitable for nesting. Row crops can also provide important foraging habitat for Swainson’s hawks, particularly during and after harvesting. For nesting, Swainson’s hawks use tall native and nonnative trees, frequently associated with riparian habitat.

The valley elderberry beetle is listed as federal threatened. This species requires elderberry shrubs to complete all stages of its life cycle. Elderberry shrubs are frequently associated with riparian habitat, which is not present on the project site. However, isolated elderberry shrubs could occur along agricultural drainage ditches and in other areas that are not currently cultivated. Mature elderberry shrub within this species range are generally considered as potential habitat for the valley elderberry longhorn beetle.

Special-status species that could occur on the project site, but that are not protected under ESA or CESA, include diamond-petaled California poppy, Lemmon’s jewelflower, big tarplant, round-leaved filaree, western spadefoot, San Joaquin whipsnake, western burrowing owl, loggerhead shrike, tricolored blackbird, and American badger. None of the four special-status plants are expected to occur on the project site because past agricultural activities, including livestock grazing, have greatly reduced habitat suitability. Western spadefoot is not expected to occur because no vernal pools or seasonal wetlands were observed on-site during the reconnaissance survey. The project site does provide suitable habitat for San Joaquin whipsnake, western burrowing owl, loggerhead shrike, tricolored blackbird, and American badger.

Sensitive Habitats

Sensitive habitats include sensitive natural plant communities and other habitats designated and/or regulated by DFG and, U.S. Fish and Wildlife Service (USFWS), and U.S. Army Corps of Engineers (USACE). Under Section 404 of the Clean Water Act (CWA), wetlands and other waters of the United States are subject to the jurisdiction of USACE. Aquatic habitats may also receive protection under California statutes including Section 1602 of the California Fish and Game Code and the California Porter-Cologne Water Quality Control Act.

No sensitive natural plant communities are present on the project site. The only sensitive habitat reported in the vicinity of the project site is sycamore alluvial woodland along Orestimba Creek, which crosses I-5 approximately 3.5 miles south of the project site (CNDDDB 2010). Although not considered sensitive natural plant communities, the pond and other areas on the project site that support wetland characteristics are considered sensitive habitat because they could be subject to regulation by DFG and/or USACE. The pond is also considered valuable habitat for a number of wildlife species.

DISCUSSION

- a) **Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?**

Less-than-Significant with Mitigation. The proposed project is not expected to result in a substantial loss of habitat for any special-status plants or animals. No impacts to special-status plants are expected because the fields currently used for dryland farming and orchards that are proposed as solar fields do not provide appropriate habitat. No loss of suitable habitat for special-status plants is expected to result from construction of fire access roads or other project components located outside of the solar fields. Similarly, project construction would not remove a substantial amount of habitat for any special-status wildlife species. Construction activity would be largely limited to areas already disturbed by past agricultural uses. The project site is currently considered low or moderate quality habitat for potentially occurring special-status species wildlife species. Generally, after the proposed project becomes operational, the site would continue to provide similar habitat quality for potentially occurring special-status wildlife species as it does currently. As set forth in the Decommissioning Plan for the proposed project, the property would be restored to resemble its current condition. Therefore, decommissioning activities would not result in a substantial permanent loss of habitat for special-status wildlife species.

Although impacts to habitat for special-status wildlife species would not be substantial, the unanticipated, but potential, loss of individuals for burrowing owl, valley elderberry longhorn beetle, and San Joaquin kit fox is considered potentially significant. Field edges and other land currently not subject to regular ground disturbance is considered suitable habitat for burrowing owls, which could nest or otherwise occupy ground squirrel burrows located in areas proposed for construction. Active burrowing owl burrows could collapse or otherwise be destroyed by project vehicular traffic or by project construction activity. Elderberry shrubs that could potentially support the valley elderberry longhorn beetle could be present in areas proposed for construction as well. The potential for an active kit fox den on the project site is considered to be far more remote but cannot be dismissed entirely. Implementation of Mitigation Measure BIO-1 would reduce these impacts to a less than significant level. No further mitigation is required.

- ▶ **Mitigation Measure BIO-1.** Avoid and Minimize Impacts to Western Burrowing Owl, Valley Elderberry Longhorn Beetle, and San Joaquin Kit Fox.
 - To avoid and minimize impacts to western burrowing owl, a protocol-level preconstruction burrowing owl survey shall be conducted covering all areas subject to disturbance, and a 250 buffer area extending beyond areas subject to disturbance no fewer than 14 days and no more than 30 days prior to the start of

construction according to methods approved by California Department of Fish and Game (DFG) (DFG 1995). Appropriate avoidance measures shall be determined in consultation with DFG in the event an active burrow is located in an area subject to disturbance, or within the 250 foot buffer area. Burrows occupied by burrowing owls shall not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist verifies through non-invasive methods that either: (1) the birds have not begun egg-laying and incubation; or (2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.

- To avoid and minimize impacts to San Joaquin kit fox, U.S. Fish and Wildlife Service (USFWS) approved preconstruction protocol-level surveys (USFWS 1999) shall be conducted no fewer than 14 days and no more than 30 days prior to the onset of any ground-disturbing activity. The survey area shall include all areas subject to disturbance, and a 250 buffer area extending beyond areas subject to disturbance. In the event that an active San Joaquin kit fox den is detected during preconstruction surveys, DFG and USFWS shall be contacted immediately and no project activity shall begin until appropriate avoidance measure have been implemented, and DFG and USFWS have provided written authorization that project construction may proceed. In addition, the proposed fencing along the southern boundary of the project site shall be designed to be wildlife friendly by raising the bottom of the fence six inches above the ground to allow San Joaquin Kit Fox to move into and out of the project site.
- To avoid and minimize impact to valley elderberry longhorn beetle, prior to construction, a survey shall be conducted for elderberry shrubs. The survey area shall include all areas subject to disturbance, and a 250 buffer area extending beyond areas subject to disturbance. In the event that any elderberry shrubs are found, the project applicant shall determine if the shrubs can be completely avoided. Complete avoidance would require no ground disturbance with 20 feet of the shrub. If complete avoidance is not feasible, the project applicant shall comply with USFWS compensation guidelines for valley elderberry longhorn beetle (USFWS 1999).

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Game or the U.S. Fish and Wildlife Service?

Less-than-Significant Impact. No sensitive natural plant communities are located within the project site. The only sensitive natural plant community identified in the CNDDDB within 5 miles of the project site is sycamore alluvial woodland associate with Orestimba Creek, which is located approximately four miles south of the project site. No important natural riparian or wetland plant communities are located within the project site. A farm pond created using an earthen berm is located in the project site; however, this pond is not expected to be affected by project construction. This impact is considered less than significant. No mitigation is required.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less-than-Significant with Mitigation. It is not known if any federally protected waters of the United States as defined by Section 404 of CWA are present on the project site because a formal wetland delineation has not been completed. There are no natural drainage features, but altered wetland features may be considered jurisdictional by the USACE provided they meet the federal criteria. Potential jurisdictional wetlands in the project site are limited to excavated drainages ditches, including what appears to be a realigned section of Little Salado Creek, and a farm pond. Because the solar farm and other project components do not overlap with these features as currently proposed, it may be possible to avoid impacts to any potential federally protected water of the United States, including wetlands. However, the potential for impact cannot be dismissed until the final project footprint has been approved and potential wetlands in the project site have been mapped and described. The potential loss of federally protected wetlands is considered a potentially significant impact. However, implementation of

Mitigation Measure BIO-2 would reduce these impacts to a less than significant level. No further mitigation is required.

► **Mitigation Measure BIO-2.** Avoid and Minimize Impacts to Waters of the United States.

- Prior to project approval, a qualified biologist shall survey the project site and map and describe all potential waters of the United States. This survey shall include all areas subject to disturbance, and a 250 buffer area extending beyond areas subject to disturbance. To the extent feasible, the project shall be designed and constructed to avoid all areas identified as potential waters of the United States. All potential waters of the United States in the project area shall be clearly marked for avoidance prior to construction with fencing or flagging. If complete avoidance of all potential waters of the United States is feasible, no additional mitigation to avoid and minimize this impact would be required.
- If complete avoidance is not feasible, a formal delineation of waters of the United States shall be conducted by a qualified biologist to determine the extent of jurisdictional wetlands on the project site. The findings shall be documented in a detailed report and submitted to the U.S. Army Corps of Engineers (USACE) for verification as part of the formal Section 404 wetland delineation process. If there would be unavoidable effects under USACE jurisdiction, the Section 404 process shall be completed and the acreage of affected jurisdictional habitat shall be replaced and/or rehabilitated. The acreage of jurisdictional wetland affected shall be replaced on a “no-net-loss” basis in accordance with USACE regulations. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by feasible methods agreeable to USACE.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less-than-Significant Impact. The project site is not located within any designated resident or migratory wildlife corridors. Opportunities for terrestrial wildlife to move across the site would not be substantially diminished from baseline conditions as fencing in the project site would be limited to a cyclone fence parallel to I-5 and the southern boundary of the project site for security purposes; the remainder of the project site would not be fenced, as described in the project description. As required in Mitigation Measure BIO-2, fencing proposed along the southern boundary of the project site would be designed to be wildlife friendly by raising the bottom of the fence six inches above the ground to allow movement into and out of the project site. Wildlife would continue to be able to access, and move across, the project site. This impact is considered less than significant.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. The proposed project would not conflict with any adopted local policies or ordinances protecting biological resources. The only trees that would be removed are almond trees that are not subject to protection under any local ordinances or policies protecting biological resources. There is no impact. No mitigation is required.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The project site is not located within an adopted habitat conservation plan or natural community conservation plan area. There is no impact. No mitigation is required.

3.3.5 CULTURAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. Cultural Resources. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

ENVIRONMENTAL SETTING

Cultural Resources

AECOM cultural resources specialists conducted archival research, coordinated with the Native American community, and conducted a reconnaissance archaeological survey (pedestrian survey transects spaced at approximately 30 meters) of the project site to document previously unrecorded cultural sites, features, and artifacts and to update information on known cultural resources situated within or immediately adjacent to the project site. A record search conducted through the Central California Information Center (CCIC) of the California Historical Resources Information System, indicated that two cultural resources have been identified within or immediately adjacent to the project site (described below).

CA-STA-402H (P-50-501)

This resource consists of the historic-era route of Fink Road. In 1871, Isaac Crow filed a petition to establish a road west from Crows Landing to the Diablo Range foothills near present-day I-5. In 1872, Crow started work on the road, which followed the General Land Office map section lines and finished later that same year. In 1888, the Fink family built a home alongside the road which was eventually named after them. According to the 1916 U.S. Geological Survey topographic map of the area, Fink Road was extended westerly through the center Section 24 and provided access to an unnamed household or a barn. Although the general setting of Fink Road has remained largely unchanged since the late 19th century, the road has clearly been widened and altered and while it may be a locally important transportation route, was recommended not eligible to the California Register of Historic Resources (CRHR) (Davis-King 1999).

CA-STA-40 (P-50-126)

This site consists of an undefined scatter of prehistoric artifacts documented along Little Salado Creek by historian Frank Latta in 1950. Latta’s site description is minimal and only refers to an “occupation site at spring”. This resource could not be relocated during the AECOM reconnaissance survey and the CCIC record search indicates two possible locations for this resource; one situated within the project site and another just outside of the project site. Since this resource could not be relocated by AECOM archaeologists (and may be located outside of the project site), it is not possible make an assessment as to potential CRHR eligibility at this time.

Isolated Artifacts

The AECOM reconnaissance survey identified two prehistoric stone tools (chert cores) within the project site. Although not considered historical resources under CEQA (not eligible to the CRHR) due to a lack of important associations or data potential, they do indicate that early Native Americans did occupy the project site and were possibly attracted to the area by the presence of Little Salado Creek.

The presence of prehistoric artifacts within the project site suggests the potential for additional prehistoric resources either obscured by ground cover, agricultural practices, or buried in depositional environments. Given the presence of Little Salado Creek (now ephemeral) within the project site, Orestimba Creek to the south, and level terraces that may have been suitable for early Native American occupation and activities in the project site, the archaeological site of CA-STA-40, and prehistoric artifacts noted during the reconnaissance survey, the project site appears to possess a moderate level of sensitivity for containing presently undocumented archaeological sites and materials.

Previously documented resources (such as CA-STA-40) and presently unrecorded sites, features, and artifacts that may be present on the project site may have been destroyed, altered, or obscured from view by past and ongoing agricultural activities. Plowing, although not necessarily moving archaeological materials to a great extent horizontally, does disturb their vertical context. Modern plowing and discing typically impacts the stratigraphic character of archaeological sites up to 12 inches below ground surface. However, remains below that level (often referred to as the “plow zone”) can retain a great deal of integrity and possess important scientific data; an important consideration regarding their CRHR eligibility. Consequently, although agricultural activities may have obliterated surface indications of cultural resources within the project site, there is a possibility that significant archaeological remains are present below approximately 12 inches.

Native American Community Coordination

To determine if the Native American community was aware of any undocumented prehistoric sites, features, artifacts, or other culturally sensitive properties within or near the project site, AECOM contacted the Native American Heritage Commission (NAHC) requesting a search of the NAHC Sacred Land Files and a list of appropriate Native American tribal representatives and organizations that might have an interest in or concerns with the proposed project. The NAHC responded that no culturally significant properties were located within or near the project site. AECOM sent letters and conducted follow-up phone calls with the following individuals and groups in April 2010 but no responses were received:

- ▶ Ryan Garfield, Chairperson
Tule River Indian Tribe, Porterville, California
- ▶ Anthony Brochini, Chairperson
Jay Johnson, Spiritual Leader
Southern Sierra Miwuk Nation, Mariposa, California
- ▶ Katherine Erolinda Perez
Northern Valley Yokuts Tribe
Linden, California
- ▶ Rhonda Morningstar Pope, Chairperson
Buena Vista Rancheria, Sacramento, California
- ▶ Silvia Burley
California Valley Miwok Tribe, Stockton, California

- ▶ Kevin Day, Chairperson
Tuolumne Band of Me-Wuk, Tuolumne, California

Paleontological Resources

For purposes of this analysis, a unique paleontological resource or site is one that is considered significant under the following professional paleontological standards.

A paleontologically important rock unit is one that: 1) has a high potential paleontological productivity rating, and 2) is known to have produced unique, scientifically important fossils. The potential paleontological productivity rating of a rock unit exposed at the project site refers to the abundance/densities of fossil specimens and/or previously recorded fossil sites in exposures of the unit in and near the project site. Exposures of a specific rock unit at the project site are most likely to yield fossil remains representing particular species in quantities or densities similar to those previously recorded from the unit in and near the project site.

An individual vertebrate fossil specimen may be considered unique or significant if it is identifiable and well preserved, and it meets one of the following criteria:

- ▶ a type specimen (i.e., the individual from which a species or subspecies has been described);
- ▶ a member of a rare species;
- ▶ a species that is part of a diverse assemblage (i.e., a site where more than one fossil has been discovered) wherein other species are also identifiable, and important information regarding life history of individuals can be drawn;
- ▶ a skeletal element different from, or a specimen more complete than, those now available for its species; or
- ▶ a complete specimen (i.e., all or substantially all of the entire skeleton is present).

The value or importance of different fossil groups varies depending on the age and depositional environment of the rock unit that contains the fossils, their rarity, the extent to which they have already been identified and documented, and the ability to recover similar materials under more controlled conditions (such as for a research project). Marine invertebrates are generally common; the fossil record is well developed and well documented, and they would generally not be considered a unique paleontological resource. Identifiable vertebrate marine and terrestrial fossils are generally considered scientifically important because they are relatively rare.

According to Wagner, Bortugno, and McJunkin (1991), the project site is underlain by the three geologic formations described below.

- ▶ Holocene alluvium (11,000 years Before Present [B.P.] and younger), composed of unconsolidated stream and basin deposits.
- ▶ Late Miocene/Early Oligocene Valley Springs Formation (28 to 30 million years B.P.), composed of rhyolitic tuff, sandstone, siltstone, claystone, and conglomerate. This formation outcrops within the hills along the southern side of the unnamed creek in the western portion of the project site.
- ▶ Paleocene Tesla Formation (55 to 65 million years B.P.), composed of quartzose sandstone, carbonaceous shale and siltstone, and of marine origin. This formation outcrops within the hillsides south of Oak Flat Road, in the northern portion of the project site.

DISCUSSION

a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?

Less-than-Significant Impact. Archival research, coordination with the Native American community, and an archaeological survey indicates that one previously-documented historic-era resource is located within the project site and one prehistoric archaeological site may be present within the project site. The archaeological survey identified two isolated prehistoric artifacts. None of these cultural resources have been recommended eligible for CRHR listing and consequently, project-related impacts to documented historical resources would be less-than-significant. No mitigation is required.

b) Cause a substantial adverse change in the significance of an archaeological resource as defined in Section 15064.5?

Less-than-Significant with Mitigation. Reconnaissance-level cultural resources surveys have been conducted within the project site. However, project-related ground disturbances could affect previously unrecorded prehistoric and historic-era sites, features, or artifacts located in subsurface contexts that could not be documented during these surface inventories. Such resources could be significant per CRHR criteria and impacts to them would constitute a significant impact. However, implementation of Mitigation Measure CR-1 would ensure that if an inadvertent discovery of previously unknown cultural resources is made, that appropriate steps will be taken to determine its significance and develop appropriate treatment measures. Therefore, this impact would be reduced to a less than significant level. No further mitigation is required.

- ▶ **Mitigation Measure CR-1.** Stop Work if Previously Unknown Archaeological Resources Are Uncovered during Project Construction, Assess the Significance of the Find, and Pursue Appropriate Management.
 - If an inadvertent discovery of cultural materials (e.g., unusual amounts of shell, animal bone, bottle glass, ceramics, structure/building remains) is made during project-related construction activities, ground disturbances in the area of the find shall be halted and a qualified professional archaeologist shall be notified regarding the discovery. The archaeologist shall determine whether the resource is potentially significant as per the California Register of Historic Resources (CRHR) and develop appropriate treatment measures.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

No Impact. Based on a records search at the U.C. Berkeley Museum of Paleontology (UCMP) (UCMP 2010), both invertebrate and plant fossils have been recovered from the Tesla Formation. The closest plant fossil in the Tesla Formation was recovered from Lone Tree Creek, approximately 16 miles north of the project site. Plant fossils have also been recovered from the Valley Springs Formation in Calaveras and El Dorado Counties (UCMP 2010).

As described in Section 2.4.2 in the “Project Description,” and shown in Exhibit 2-3, approximately 800 acres of the project site would be developed as part of the project. The remaining approximately 887 acres would remain in agricultural production (orchards and barley). Those portions of the project site that would not be developed are underlain by the Valley Springs and Tesla Formations. Although those geologic formations have the potential to contain unique paleontological resources, since no project-related activities would occur in those formations, there would be no impact. No mitigation is required.

Those portions of the project site where project-related activities would occur are underlain by Holocene-age alluvium. By definition, in order to be considered a fossil, an object must be more than 11,000 years old. Because

the alluvial deposits are less than 11,000 years old, project implementation would have no impact on unique paleontological resources. No mitigation is required.

d) Disturb any human remains, including those interred outside of formal cemeteries?

Less-than-Significant with Mitigation. No known burial sites were identified in the project site or in the immediate vicinity. The potential exists, however, for previously unknown human remains to be discovered during construction. Damage to or destruction of human remains would constitute a significant impact. However, implementation of Mitigation Measure CR-2 would ensure that if an inadvertent discovery of previously unknown human remains is made, that appropriate steps will be taken to determine the significance of the find and pursue appropriate management. Therefore, this impact would be reduced to a less than significant level. No further mitigation is required.

- ▶ **Mitigation Measure CR-2.** Stop Work if Human Remains Are Uncovered during Project Construction, Assess the Significance of the Find, and Pursue Appropriate Management.
 - If human remains are uncovered during ground-disturbing activities, the contractor and/or the project applicant shall immediately halt potentially damaging excavation in the area of the find and notify the County Coroner and a professional archaeologist to determine the nature of the remains. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (Health and Safety Code Section 7050[c]). Following the coroner’s findings, the property owner, contractor or project proponent, an archaeologist, and the NAHC-designated Most Likely Descendent (MLD) shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed. The responsibilities for acting upon notification of a discovery of Native American human remains are identified in California PRC 5097.9.
 - Upon the discovery of Native American remains, the project applicant, in consultation with the County shall ensure that the immediate vicinity (according to generally accepted cultural or archaeological standards and practices) is not damaged or disturbed by further development activity until consultation with the MLD has taken place. The MLD shall have 48 hours to complete a site inspection and make recommendations after being granted access to the site. A range of possible treatments for the remains, including nondestructive removal and analysis, preservation in place, relinquishment of the remains and associated items to the descendants, or other culturally appropriate treatment may be discussed. California PRC 5097.9 suggests that the concerned parties may extend discussions beyond the initial 48 hours to allow for the discovery of additional remains. The following is a list of site protection measures that the project applicant shall employ:
 - record the site with the NAHC or the appropriate Information Center,
 - use an open space or conservation zoning designation or easement, and
 - record a document with Stanislaus County.
 - The project applicant or their authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance if the NAHC is unable to identify a MLD or the MLD fails to make a recommendation within 48 hours after being granted access to the site. The landowner or their authorized representative may also re-inter the remains in a location not subject to further disturbance if they reject the recommendation of the MLD, and mediation by the NAHC fails to provide measures acceptable to the County.

3.3.6 GEOLOGY AND SOILS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. Geology and Soils. Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ENVIRONMENTAL SETTING

The project site is located in the margin between the eastern Coast Range and the western San Joaquin Valley. The San Joaquin Valley forms the southern half of the Central Valley. Most of the surface of the Central Valley is covered with Holocene and Pleistocene-age alluvium, primarily composed of sediments from the Sierra Nevada and the Coast Ranges (Diablo Range), which were carried by water and deposited on the valley floor.

As discussed previously in Section 3.3.5, “Cultural Resources,” the project site is underlain by Holocene alluvium, and by Tertiary sediments of the Valley Springs and Tesla Formations (Wagner, Bortugno, and McJunkin 1992). Project-related activities would only occur within the Holocene alluvium.

Soil types at the project site and their characteristics are listed in Table GEO-1.

The San Joaquin Fault is located between I-5 and the Delta Mendota Canal, approximately 2,500 feet east of the project site. However, according to Jennings (1994), the San Joaquin Fault has not been active in the last 700,000 years, and it is not classified as “active” by the California Department of Conservation. The closest active faults to the project site are the Cottonwood Arm of the Ortigalita Fault (approximately 12 miles to the south) and the San Antonio Valley section of the Greenville Fault (approximately 20 miles to the west). The Ortigalita Fault is estimated to be capable of producing an earthquake with a Maximum moment magnitude (M_{max}) of 7.1, while an

Table GEO-1 Soil Names and Characteristics				
Soil Map Unit	Water Erosion Hazard ¹	Wind Erosion Hazard ²	Shrink-Swell Potential ³	Limitations
Capay clay, loamy substratum, 0–2% slopes	Moderate	7	High	Low soil bearing strength; high shrink-swell potential
Stomar clay loam, 0–2% slopes	Moderate	6	High	Low soil bearing strength; high shrink-swell potential
Zacharias clay loam, 0–2% slopes	Moderate	6	Moderate	Low soil bearing strength; moderate shrink-swell potential
Chaqua-Arburua complex, 8–15% slopes	Moderate	4L	Moderate	Moderate slopes; shallow depth to bedrock; moderate shrink-swell potential
Carbona clay loam, 2–8% slopes	Moderate	7	High	Low soil bearing strength; high shrink-swell potential
Damluis gravelly clay loam, 0–2% slopes	Low	8	High	Low soil bearing strength; high shrink-swell potential
Damluis gravelly clay loam, 2–8% slopes	Low	8	High	Low soil bearing strength; high shrink-swell potential
Damluis gravelly clay loam, 8–15% slopes	Low	8	High	Low soil bearing strength; high shrink-swell potential; moderate slope
Wisflat-Arburua-San Timoteo complex, 30–50% slopes	Moderate	3	Low	Shallow depth to bedrock; extremely steep slopes
Wisflat-Arburua-San Timoteo complex, 50–75% slopes	Moderate	3	Low	Shallow depth to bedrock; extremely steep slopes
Notes:				
¹ Based on the erosion factor “Kw whole soil,” which is a measurement of relative soil susceptibility to sheet and rill erosion by water.				
² The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible.				
³ Based on percentage of linear extensibility. Shrink-swell potential ratings of “moderate” to “very high” can result in damage to buildings, roads, and other structures.				
Source: Natural Resources Conservation Service 2009				

earthquake on the Greenville Fault could reach M_{max} 6.6 (Cao et al. 2003). The Ortigalita and Greenville Faults are listed as Class A and B, respectively, by the California Geological Survey (Cao et al. 2003).

DISCUSSION

- a) **Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:**
 - i) **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)**

Less-than-significant Impact. Surface ground rupture along faults is generally limited to a linear zone a few yards wide. Since there are no active faults mapped across the project site by the California Geological Survey or

the U.S. Geological Survey, nor is the project site located within an Alquist-Priolo Earthquake Special Study Zone, fault ground rupture is unlikely (California Geological Survey 2007, Hart and Bryant 1999). Therefore, this impact would be less than significant. No mitigation is required.

ii) Strong seismic ground shaking?

Less-than-significant Impact. The closest active seismic sources to the project site are the Ortigalita and Greenhill Faults, which themselves former a part of the larger San Andreas Fault Systems. Two magnitude 5.8 earthquakes occurred along the Greenville Fault in January 1980 near Livermore, which caused approximately 50 injuries and over \$12 million in property damage. An earthquake on the Ortigalita Fault occurred in January 1988, with a magnitude of 3.7.

Ground motions from seismic activity can be estimated by probabilistic method at specified hazard levels. The intensity of ground shaking depends on the distance from the earthquake epicenter to the site, the magnitude of the earthquake, site soil conditions, and the characteristic of the source. For purposes of this IS/Proposed MND, the California Geological Survey's Probabilistic Seismic Hazards Mapping Ground Motion Page (California Geological Survey 2010) was consulted to estimate site-specific probabilistic ground acceleration for the project site. Peak horizontal ground acceleration (the level of ground shaking) with 10% probability of being exceeded in 50 years was calculated for firm rock, soft rock, and alluvium in percentage of gravity (g) (or percentage of the earth's normal gravitational strength). These calculations found that there is a 1-in-10 probability that an earthquake will occur within 50 years that would result in a peak horizontal ground acceleration exceeding 0.40 g in alluvial soils (California Geological Survey 2010).

The California Buildings Standards Code (CBC) specifies more stringent design guidelines where a project would be located adjacent to a Class "A" or "B" fault as designed by the California Probabilistic Seismic Hazard Maps (Cao et al. 2003). The project site is located approximately 12 miles from a Class A fault (i.e., Ortigalita Fault).

Because the project applicant is required to adhere to the building safety standards specified in the CBC, which are designed to prevent damage from strong seismic ground shaking to the maximum extent feasible, and because no bridges, buildings intended for human habitation, or pipelines carrying hazardous materials are proposed as part of the project, this impact would be considered less than significant.

iii) Seismic-related ground failure, including liquefaction?

Less-than-significant Impact. Soil liquefaction occurs when ground shaking from an earthquake causes a sediment layer saturated with groundwater to lose strength and take on the characteristics of a fluid, thus becoming similar to quicksand. Factors determining the liquefaction potential are soil type, the level and duration of seismic ground motions, the type and consistency of soils, and the depth to groundwater. Loose sands and peat deposits, and sediments of Holocene age, are more susceptible to liquefaction. Sediments older than Holocene age, consisting of clayey silts, silty clays, and clays deposited in freshwater environments, are generally stable under the influence of seismic ground shaking.

Liquefaction poses a hazard to engineered structures. The loss of soil strength can result in bearing capacity insufficient to support foundation loads, increased lateral pressure on retaining or basement walls, and slope instability.

Because a geotechnical investigation has not been performed, the depth to groundwater at the project site is unknown. However, data included in the Draft Environmental Impact Report for the Fink Road Landfill Expansion Project (SCS Engineers/EDAW 2001), which is near the project site, indicated that shallow groundwater was commonly encountered as a perched condition within the younger alluvial soils. Aside from this condition, groundwater at the Fink Road Landfill site was generally located at depths greater than 50 feet below the ground surface. Activities proposed as part of the proposed project would take place in Holocene sediments, which generally are more susceptible to liquefaction than Tertiary sediments; and the Ortigalita Fault, which is

active, is located relatively close (approximately 12 miles) to the project site. However, even if project site soils were determined to have a high liquefaction potential by a licensed geotechnical engineer, no paved roadways, bridges, pipelines carrying hazardous materials, or structures intended for human habitation are proposed as part of the proposed project. Finally, the 15 x 15-foot utility buildings would be required by law to conform to the requirements of the CBC. Therefore, this impact would be less than significant. No mitigation is required.

iv) Landslides?

Less-than-Significant Impact. Although the steeper slopes in the midwestern and northeastern portion of the project site could be subject to a landslide hazard, no project components are proposed in that area, nor are those areas identified in the designated project phases. Therefore, this impact would be less than significant. No mitigation is required.

b) Result in substantial soil erosion or the loss of topsoil?

Less-than-Significant with Mitigation. The project site consists primarily of orchards and fallow land. The project site soil types are characterized as having a low to moderate water erosion hazard (NRCS 2009); see Table GEO-1. No project-related activities would occur within the soil map units on the project site that have a high wind erosion hazard (i.e., Wisflat-Arburua-San Timoteo complex). Construction of the proposed project components would involve very little excavation of soil. Furthermore, any grading activities that would entail disturbance of more than one acre would require implementation of Mitigation Measures GEO-1 and GEO-2, which requires the preparation of a Storm Water Pollution Prevention Plan (SWPPP) and associated Best Management Practices (BMPs). Finally, the project applicant would also be required to prepare, submit for County review and approval, and implement a grading and erosion control plan, as required by Mitigation Measure GEO-2. Therefore, implementation of Mitigation Measures GEO-1 and GEO-2 would reduce these impacts to a less than significant level. No further mitigation is required.

- ▶ **Mitigation Measure GEO-1.** Implement a Stormwater Pollution Prevention Plan (SWPPP) and associated Best Management Practices (BMPs) for disturbance of more than one acre.
- ▶ **Mitigation Measure GEO-2.** Prepare and submit for County review and approval, and implement a grading and erosion control plan.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less-than-Significant Impact. Based on a review of NRCS Soil Survey data (NRCS 2009) shown in Table GEO-1 above, installation of some of the proposed project components could occur in soils with a low bearing strength. However, the proposed 15 x 15-foot utility buildings are not intended for human habitation; buildings would be required by law to conform to the requirements of the CBC; and only access roads as described in Section 2.5.4 and intended for occasional use would be created. Therefore, this impact would be less than significant. No mitigation is required.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994, as updated), creating substantial risks to life or property?

Less-than-Significant Impact. According to NRCS Soil Survey data (NRCS 2009) show in Table GEO-1, the project site soils, including those where proposed components would be installed, have a moderate to high expansion (i.e., shrink-swell) potential. However, the proposed 15 x 15-foot utility buildings are not intended for human habitation; buildings would be required by law to conform to the requirements of the CBC; and only access roads as described in Section 2.5.4 and intended for occasional use would be created. Therefore, this impact would be less than significant. No mitigation is required.

- e) **Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?**

No Impact. Implementation of the proposed project would not involve expanded use of septic tanks or alternative waste water disposal systems. Therefore, no impact would occur. No mitigation is required.

3.3.7 GREENHOUSE GAS EMISSIONS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. Greenhouse Gas Emissions. Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ENVIRONMENTAL SETTING

Constituent gases of the Earth’s atmosphere called atmospheric greenhouse gases (GHGs) play a critical role in the Earth’s radiation budget by trapping infrared radiation emitted from the Earth’s surface, which would have otherwise escaped to space. Prominent GHGs contributing to this process include carbon dioxide (CO₂), methane (CH₄), ozone, water vapor, nitrous oxide (N₂O), and chlorofluorocarbons (CFCs). This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate. Anthropogenic emissions of these GHGs in excess of natural ambient concentrations are responsible for the enhancement of the greenhouse effect and have led to a trend of unnatural warming of the Earth’s natural climate, known as global warming or climate change. Global warming—inducing emissions of these gases are attributable to human activities associated with industrial/manufacturing, utilities, transportation, residential, and agricultural sectors (California Energy Commission [CEC] 2006a).

Transportation is responsible for 41% of the state’s GHG emissions, followed by electricity generation (CEC 2006a). Emissions of CO₂ and NO_x are byproducts of fossil fuel combustion. Methane, a highly potent GHG, results from off-gassing associated with agricultural practices and landfills. Sinks of CO₂ include uptake by vegetation and dissolution into the ocean.

Global warming is a global problem, and GHGs are global pollutants, unlike criteria air pollutants and TACs, which are pollutants of regional and local concern. Worldwide, California is the 12th–16th largest emitter of CO₂, and is responsible for approximately 2% of the world’s CO₂ emissions (CEC 2006a, 2006b). In 2004, California produced 492 million gross metric tons of carbon dioxide-equivalent (CEC 2006a).

Various local and statewide initiatives to reduce the state’s contribution to GHG emissions have raised awareness that, even though the possible outcomes and feedback mechanisms associated with climate change are not yet fully understood, global warming is already upon us and the potential for environmental, social, and economic disaster over the long term has the potential to be great. Cooperation on a global scale will be required to reduce GHG emissions to a level that will slow the warming trend, and the direct air quality impact of increasing GHG emissions into the global system is incrementally cumulative.

In September 2006, California Governor Arnold Schwarzenegger signed Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006. AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and a cap on statewide GHG emissions, and is the first of its kind worldwide. AB 32 applies to major stationary sources of emissions only, but acknowledges the urgency of this potential threat to the environment.

The SJVAPCD has adopted the guidance: Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA and the policy: District Policy – Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency. The guidance and policy rely on the use of performance based standards, otherwise known as Best Performance Standards (BPS) to assess significance of project-specific GHG emissions on global climate change during the environmental review process, as required by CEQA. Use of BPS is a method of streamlining the CEQA process of determining significance and is not a required emission reduction measure. Projects implementing BPS would be determined to have a less than cumulatively significant impact. Otherwise, demonstration of a 29% reduction in GHG emissions, from business-as-usual, is required to determine that a project would have a less than cumulatively significant impact.

Other resource areas could be affected as a result of GHGs, including from incremental increases of new GHG emissions. For example, the increased global average temperature increases ocean temperatures, and the Pacific Ocean strongly influences the climate within California. If the temperature of the ocean warms, it is anticipated that the winter snow season would be shorter. Snowpack in the Sierra Nevada provides both water supply (runoff) and storage (within the snowpack before melting), which is a major source of supply for the state. According to a CEC report, the snowpack portion of the supply could potentially decline by 70%–90% by the end of the 21st century (CEC 2006c). This phenomenon could lead to significant challenges securing an adequate water supply for a growing population. Further, the increased ocean temperature could result in increased moisture flux into the state; however, since this would likely come increasingly in the form of rain rather than snow in the high elevations, increased precipitation could lead to increased potential for flood events, placing more pressure on California's levee/flood control system. Sea level has risen approximately 7 inches during the last century and, according to the CEC report, it is predicted to rise an additional 22–35 inches by 2100, depending on the future GHG emissions levels (CEC 2006c). If this occurs, resultant effects could include increased coastal flooding, saltwater intrusion (especially a concern in the low-lying Delta, where potable water delivery pumps could be threatened), and disruption of wetlands (CEC 2006c). As the existing climate throughout California changes over time, mass migration of species, or worse, failure of species to migrate in time to adapt to the perturbations in climate, could also result.

FEEDBACK MECHANISMS AND UNCERTAINTY

Additionally, change in ocean temperature would be expected to lead to changes in ocean current circulation (which incidentally is a function of salinity and temperature; parameters that would also change as sea ice and glaciers melt and air temperature increases). Many complex mechanisms compete within Earth's energy budget to establish the global average temperature.

Direct and Indirect Aerosol Effects

Aerosols, including particulate matter, reflect sunlight back to space. As attainment designations for particulate matter are met, and fewer PM emissions occur, the cooling effect of anthropogenic aerosols would be reduced, and instead, the greenhouse effect would be further enhanced. Similarly, aerosols act as cloud condensation nuclei (CCN) to aid in cloud formation and increase cloud lifetime. Clouds efficiently reflect radiation back to space. The indirect effect of aerosols on clouds and precipitation efficiency would be reduced, amplifying the greenhouse effect again.

Cloud Effect

As global temperature rises, the ability of the air to hold moisture increases, and it becomes easier for clouds to form. If the increase in cloud cover occurs at low or middle altitudes, resulting in clouds with greater liquid water path such as stratus or cumulus clouds, more radiation would be reflected back to space, resulting in a negative feedback, wherein the side effect of global warming acts to balance itself. If cloud formation occurs at higher altitudes in the form of cirrus clouds, these clouds actually allow more light to pass through than they reflect and

ultimately, act as GHG themselves, thus resulting in a positive feedback, wherein the side effect of global warming acts to enhance the process. This feedback mechanism, known as the Cloud Effect, is poorly understood.

Other Feedback Mechanisms

As global temperature continues to rise, methane gas, which is trapped in permafrost, would be released into the atmosphere. Methane is approximately 20 times as efficient a GHG as CO₂. This phenomenon would accelerate and enhance the warming trend. Additionally, as polar and sea ice continues to diminish, the Earth's albedo, or reflectivity, would also decrease simultaneously. More incoming solar radiation would be absorbed by the Earth, rather than being reflected back to space, in turn, further enhancing the greenhouse effect and associated global warming. These, and other competing feedback mechanisms, are still in the process of being coupled and forecast by the scientific community. It is not known at this time how the ultimate balance between all the variables will be equated to a particular temperature increment. Regardless, there is no longer debate within the scientific community that anthropogenic GHG emissions are linked to a trajectory of unnatural warming of the planet.

DISCUSSION

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less-than-Significant Impact. The operation of the proposed project would increase the amount of energy coming from clean renewable sources within the State of California. The California Energy Commission estimates that almost 60% of the power used in California is from hydrocarbon burning power plants (CEC 2009), while only 14% comes from renewable sources like solar. The transfer of energy production away from the burning of hydro carbons to renewable sources will aid the district in achieving the goals outlined in California Senate Bill (SB) 107 and AB 32.

GHG emissions associated with the proposed project would predominantly be in the form of CO₂ from heavy equipment. Although emissions of other GHGs, such as methane (CH₄) and nitrous oxide (N₂O), are important with respect to global climate change, the emission levels of these GHGs are relatively small compared with CO₂ emissions, even considering their higher global warming potential. Therefore, all GHG emissions for construction and operation are reported as CO₂.

Emission factors and calculation methods for estimating GHG emissions associated with the development of solar projects have not been formally adopted for use by the state, the SJVAPCD, or any other air district. The construction-related GHG emissions associated with grading activities were calculated using the SMAQMD Road Construction model while the building construction were calculated using URBEMIS 2007 Version 9.2.4. The Road Construction Emissions Model was developed by the SMAQMD to assess emissions from linear projects, and recommended for use by SJVAPCD personnel (Barber; pers. com, 2010). Mobile emissions from wash trucks associated with the proposed project were calculated using EMFAC 2007.

The California Climate Action Registry (CCAR) *General Reporting Protocol* Version 3.0 is the most comprehensive guidance for evaluating greenhouse gas emissions but is not intended to be applied to land development projects (CCAR 2009). The CCAR protocol includes a calculation methodology for electricity production, which was used to estimate GHG emissions estimate for the off-site utility provider. The emissions estimate associated with electricity production were then presented as the amount of GHG emissions savings the proposed project provides. The exact location of the current power production is not important given that climate change is inherently a global issue. In addition, the GHG emissions specifically related to the wash truck movement to and from as well as at the project site were estimated based on information available when this analysis was prepared. Tables GHG-1 and GHG-2 show the annual GHG emissions associated with construction and operation of the proposed project, respectively. Detailed calculations and related assumptions are presented in Appendix C.

Table GHG-1 Summary of Modeled Construction-Generated Emissions of Greenhouse Gases	
Source	Total Mass CO₂ Emissions (metric tons) ¹
Construction Emissions ²	
Per Phase emissions	135.45
Total construction emissions (2010–2015) ³	677.26
<p>Notes: CO₂ = carbon dioxide; GHG = greenhouse gases; AB = Assembly Bill; ARB = Air Resources Board; SMAQMD = Sacramento Air Quality Management District</p> <p>See Appendix C for detailed model input, assumptions, and threshold calculations.</p> <p>¹ The values presented do not include the full life-cycle of GHG emissions that occur over the production/transport of materials used during construction of the project, solid waste that occurs over the life of the project, and the end-of-life of the materials and processes that indirectly result from the project. Estimation of the GHG emissions associated with these processes would be speculative, would require analysis beyond the current state of the art in impact assessment, and may lead to a false or misleading level of precision in reporting of project-related GHG emissions. Further, indirect emissions associated with in-state energy production and management of solid waste would be regulated under AB 32 directly at the source or facility that would handle these processes. The emissions associated with off-site facilities in California would be closely controlled, reported, capped, and traded under AB 32 and ARB programs. Therefore, it is assumed that GHG emissions associated with these life-cycle stages would be consistent with AB 32 requirements.</p> <p>² Building construction emissions were modeled with the URBEMIS 2007 computer model. The road construction modeling was performed using the SMAQMD Road Construction Model.</p> <p>³ Total construction emissions calculated for 5 construction phases over 5 years.</p> <p>Source: Modeling conducted by AECOM in 2010</p>	

The proposed project would generate GHG emissions as a result of temporary and short-term construction activities and long-term operational activities. Construction-generated GHG emissions and operational GHG emissions are discussed separately below.

Construction-Generated Greenhouse Gas Emissions

Construction activities associated with construction of the new solar energy farm would occur over a 5-year period beginning as early as March 2011. The construction would occur in five separate phases. During this time, a net increase in GHG emissions would result from various construction activities. Construction-related GHG emissions would be associated with engine exhaust from heavy-duty construction equipment, material (e.g., building materials, soil) transport trucks, and worker commute trips. Although any increase in GHG emissions would add to the quantity of emissions that contribute to global climate change, it is noteworthy that emissions associated with construction of the proposed project would occur over a finite period. Following full buildout of the proposed project, all construction emissions would cease. Despite the intensity and duration of construction activities and the lack of available mitigation measures to abate GHG emissions from heavy-duty construction equipment and on-road hauling emissions, the incremental contribution to climate change by the proposed project’s construction emissions would be minimal and would not be a considerable contribution to the cumulative global impact.

To establish additional context in which to consider the order of magnitude of project-generated construction GHG emissions, it may be noted that facilities (i.e., stationary, continuous sources of GHG emissions) that generate greater than 25,000 metric tons of CO₂ per year are mandated to report their GHG emissions to the ARB pursuant to AB 32. The SJVAPCD has not established a GHG threshold methodology for construction activities. As shown in Table GHG-1, estimated GHG emissions associated with construction of the entire proposed project would be approximately 135.45 metric tons of CO₂ for each phase totaling 677.26 metric tons over the estimated 5-year construction schedule. Absent any air quality regulatory agency–adopted threshold for GHG emissions for construction, it is notable that the proposed project would generate substantially fewer emissions than 25,000

**Table GHG-2
Summary of Modeled Operational GHG Emissions**

Source	Annual Mass CO ₂ Emissions (metric tons/year) ¹
Operational Emissions of Proposed Project (Year 2011) ¹	
Mobile sources	84.88
Total operational emissions ²	339.52
GHG emissions from existing power sources ³	72412
Percent reduction from “Business as Usual”	88%

Notes: CO₂ = carbon dioxide; MWh = Megawatt Hours; CCAR = California Climate Action registry CH₄ = Methane, N₂O = Nitrogen Dioxide; GHG = greenhouse gases; AB = Assembly Bill; ARB = Air Resources Board

See Appendix C for detailed model input, assumptions, and threshold calculations.

¹ Direct operational emissions (i.e., area and mobile sources) were modeled using the EMFAC 2007 computer model, based on a per trip basis. There are currently four wash trips per year anticipated.

² The total emissions estimate is for the anticipated four trips per year.

³ Estimation of emissions generated supplying 100 MWh of electricity estimated using the methodologies of the California Climate Action Registry General Reporting Protocol, Version 3.0 (CCAR 2009). The CCAR protocol includes factors for calculating CH₄ and N₂O emissions, which are weighted by their respective global warming potential and summed with CO₂ to yield carbon dioxide equivalent (CO₂e). Electricity consumption emissions shown are weighted for CH₄ and N₂O; however, because of the nominal contribution of those GHG emissions (despite their high global warming potential), all emissions are reported as CO₂.

Source: Modeling conducted by AECOM 2010.

The values presented do not include the full life-cycle of GHG emissions that occur over the production/transport of materials used during construction of the project, solid waste that occurs over the life of the project, and the end-of-life of the materials and processes that indirectly result from the project. Estimation of the GHG emissions associated with these processes would be speculative, would require analysis beyond the current state of the art in impact assessment, and may lead to a false or misleading level of precision in reporting of project-related GHG emissions. Further, indirect emissions associated with in-state energy production and management of solid waste would be regulated under AB 32 directly at the source or facility that would handle these processes. The emissions associated with off-site facilities in California would be closely controlled, reported, capped, and traded under AB 32 and ARB programs. Therefore, it is assumed that GHG emissions associated with these life-cycle stages would be consistent with AB 32 requirements.

metric tons CO₂ per year. This information is presented for informational purposes only, and it is not the intention of SJVAPCD to adopt 25,000 metric tons of CO₂ per year as a numeric threshold. Rather, the intention is to put project-generated GHG emissions in the appropriate statewide context in order to evaluate whether the proposed project’s contribution to the global impact of climate change is considered substantial. Because construction-related emissions would be temporary and short-term and finite in nature and would be below the minimum standard for reporting requirements under AB 32, the proposed project’s GHG emissions would not be a considerable contribution to the cumulative global impact and therefore would be less than significant. No mitigation is required.

Operational Greenhouse Gas Emissions

Operational GHG emissions would be generated by mobile sources during the life of the proposed project. Area-source GHG emissions would be associated with natural gas combustion for space and water heating, maintenance of landscaping and grounds, waste disposal, and other sources. These types of emissions sources are presented as examples of area sources, there are no anticipated area emissions sources for the proposed project. Mobile-source GHG emissions would be generated by project-related vehicle trips for solar panel cleaning. Table GHG-2 presents the annual operational GHG emissions associated with the proposed project.

It should be noted that the estimations of mobile-source GHG emissions shown in Table GHG-2 assume worst-case operating scenarios. The estimations of mobile-source GHG emissions is based on the wash trucks traveling to and from the city of Modesto, which is located approximately 17 miles north east of the project site.

The SJVAPCD has established a GHG threshold methodology that compares the proposed project to a “business as usual” (BAU) scenario, the proposed project is considered to not have a significant impact if it can be demonstrated to have a 29% reduction in GHG emissions from the BAU scenario. The BAU for the proposed project is a no-project scenario that assumes there are no changes to the methods used to generate electricity for the State of California. Therefore, GHG emissions impacts would be less than significant. No mitigation is required.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

No Impact. The proposed project would provide clean renewable energy to the local load serving entity to achieve compliance with the Renewable Portfolio Standard as described in the AB 32 Scoping Plan and Renewable Electricity Standard requirements. As such, the proposed project would be a notable contributor to the successful implementation of AB 32, the AB 32 Scoping Plan, and Executive Order S-14-08. Similarly, the proposed project would not conflict with any other applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. Because the proposed project would not conflict with any applicable plan, policy or regulation for GHG reduction or managing global climate change, there would be no impact to plans and policies. No mitigation is required.

Operational Greenhouse Gas Emissions

Operational GHG emissions would be generated by mobile sources during the life of the proposed project. Area-source GHG emissions would be associated with natural gas combustion for space and water heating, maintenance of landscaping and grounds, waste disposal, and other sources. There are no anticipated area emissions sources for the proposed project. Mobile-source GHG emissions would be generated by project-related vehicle trips for solar panel cleaning. Table GHG-2 presents the annual operational GHG emissions associated with the proposed project.

It should be noted that the estimations of mobile-source GHG emissions shown in Table GHG-2 assume worst-case operating scenarios. The estimations of mobile-source GHG emissions is based on the wash trucks traveling to and from the city of Modesto, which is located approximately 17 miles north east of the project site.

The SJVAPCD has established a GHG threshold methodology that compares the proposed project to a “business as usual” (BAU) scenario, the proposed project is considered to not have a significant impact if it can be demonstrated to have a 29% reduction in GHG emissions from the BAU scenario. The BAU for the proposed project is a no-project scenario that assumes there are no changes to the methods used to generate electricity for the State of California. Therefore, GHG emissions impacts would be less than significant. No mitigation is required.

3.3.8 HAZARDS AND HAZARDOUS MATERIALS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. Hazards and Hazardous Materials. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ENVIRONMENTAL SETTING

The following environmental setting is based on the Phase I Environmental Site Assessment (ESA) for the Fink Road Solar Farm prepared by Neil O. Anderson (2010).

According to historic maps, aerial photographs, and interviews, the project site has been used as general orchard and grassland farm since at least 1919. Dirt roads are depicted on United States Geological Society (USGS) maps as early as 1919, and a gas pipeline appears on the 1947 topographic map. A few structures are visible near the center of the property in an aerial photograph from 1957, and a structure is visible near the northeast corner of the property in a 1969 aerial photo. Power lines that traverse the project site north to south are depicted on the 1953 USGS map.

The project site does not appear on any environmental record database search, but regulatory agency databases listed two nearby sites. A 350-gallon underground storage tank is located on a ranch on Oak Flat Road just north of the project site. The Fink Road Landfill is listed on the Abandoned Drug Lab waste database, as drug waste equipment has been abandoned at the landfill. However, no impact to the project site is anticipated from either of these adjacent facilities. A review of the California Division of Oil Gas and Geothermal Resources database identifies an abandoned gas and oil exploration well on the border of one of the planned phase, however, the well was decommissioned in 1961. Current site observations revealed two single-family residences and an almond processing station. A large freestanding garage and barn are located near the processing station. A fuel storage and filling area that has a total of three aboveground tanks and a small shed are located around the processing station. A larger agricultural pump is also located on the project site and is used for irrigation purposes. East-west or north-south trending dirt and gravel roads are located throughout the entire site. There is also a road that circumvents the entire proposed project site.

DISCUSSION

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

No Impact. The proposed project is a solar energy farm and would involve no routine transport, use, or disposal of hazardous materials. Therefore, no impact would result. No mitigation is required.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?

Less-than-Significant with Mitigation. Construction of the proposed project would involve the use of heavy construction equipment, which uses small amounts of hazardous materials such as oils, fuels, and other potentially flammable substances that are typically associated with construction activities. With implementation of Mitigation Measure HM-1, this temporary impact of spill risk on construction workers and the public would be reduced to a less than significant level. No further mitigation is required.

► **Mitigation Measure HM-1.** Keep Hazardous Materials in an Identified Staging Area and Prepare and Implement an Accidental Spill Prevention and Response Plan during Construction.

- Before construction begins, the project applicant shall require the construction contractor to identify a staging area where hazardous materials will be stored during construction. The staging area shall not be located in an undisturbed area. The contractor shall also be required to prepare an accidental spill prevention and response plan, which shall be reviewed and approved by the project applicant and the County, that identifies measures to prevent accidental spills from leaving the site and methods for responding to and cleaning up spills before neighboring properties are exposed to hazardous materials.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. The proposed project is a solar energy farm and would not generate any hazardous emissions or handle hazardous substances or waste. In addition, there are no schools in close proximity to the project site as the nearest one is located about 4 miles east in Crows Landing. There would be no impact. No mitigation is required.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less-than-Significant with Mitigation. According to the Phase I ESA for the project site, the project site is not listed on any regulatory agency databases, and the project site has been used for agricultural purposes as far back as the records show (Neil O. Anderson 2010). As mentioned above however, a fueling station near the center of the property, with above ground storage tanks, is located on the property. Soil staining was observed near this fueling station, and it is the opinion expressed in the Phase I ESA that this fuel could seep into the ground and into the groundwater (Neil O. Anderson 2010). In addition, the presence of an abandoned gas and oil exploration well could also create a significant hazard to the public or the environment. The implementation of Mitigation Measures HM-2 and HM-3 would reduce the impacts of seep risk into the groundwater and of the gas and oil well to a less-than-significant level. No further mitigation is required.

- ▶ **Mitigation Measure HM-2.** Prepare and Implement a Phase II Environmental Site Assessment
 - Prior to commencing any ground-disturbing activities, the project applicant shall commission a Phase II Environmental Site Assessment which shall be prepared by an appropriately registered professional in the State of California. The Phase II will comply with the guidelines, standards, and regulations set forth by the California Department of Toxic Substances Control. The project applicant will submit the Phase II to the County prior to construction, and will comply with and implement all recommendations and requirements the County imposes in response to these assessments.
 - ▶ **Mitigation Measure HM-3.** Implement Avoidance and Minimization Measures for Impacts Related to the Abandoned Oil and Gas Exploration Well
 - The Phase II Environmental Site Assessment (Mitigation Measure HM-2) will also disclose the presence/absence of the abandoned oil and gas exploration well on the project site. The project applicant will test the gas and oil well for leakage prior to construction, record the location of the well on all project maps, and impose a 10-foot, no-build buffer zone around the well to ensure that impacts to workers are minimized.
- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public-use airport, would the project result in a safety hazard for people residing or working in the project area?**

No Impact. The closest public or public-use airport to the proposed project is located approximately 19 miles away in the city of Modesto. The project site is not located within an airport land use plan. Further, the proposed project does not consist of any facilities that would conflict with airport uses, and there would be no people residing or living in the project site. Therefore, no impact would occur. No mitigation is required.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

Less-than-Significant Impact. The proposed project is located approximately 2 miles from the western boundary of Crows Landing Naval Air Station, which is a private airstrip that formerly served as a U.S. Navy facility. Patterson Airport is a private airport located about 4 miles north of the project site. Further away lies the Westley Airport which is used for crop dusters. Although the project is located within 2 miles of a private airstrip, there would be no people located on-site associated with the operations of the proposed solar energy farm. Therefore this impact is less than significant. No mitigation is required.

g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact. No emergency response or evacuation plans have been adopted for the area. The project is a solar energy farm that would be constructed in a rural area that would be served by the West Stanislaus County Fire Protection District. There would be no impact. No mitigation is required.

h) Expose people or structures to a significant of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No Impact. The California Department of Forestry and Fire Protection (CDF) Natural Hazard Disclosure map for Stanislaus County identifies portions of the project site as being located within a wildland area (CDF 2000). However, these areas, which are located along the eastern and northern edges of the project site, would be retained in their current condition and not used for the installation of standalone photovoltaic solar energy panels. As a result, no impact would result. No mitigation is required.

3.3.9 HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. Hydrology and Water Quality. Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial on- or off-site erosion or siltation?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in on- or off-site flooding?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Result in inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ENVIRONMENTAL SETTING

Regional Hydrology

Regional drainage for the eastern coast ranges in the project site and vicinity is provided by Salado, Crow, and Orestimba Creeks, each of which trends at almost right angles from the eastern slopes of the Coast Ranges to the San Joaquin Valley. None of these creeks flow perennially and all are dry through most of the year. Orestimba Creek is the only stream large enough to maintain a definite channel across its alluvial fan to the San Joaquin River. In much of the San Joaquin Valley, annual rainfall is so low that little penetrates deeply and soil moisture deficiency is perennial (Stanislaus County: Fink Road Landfill EIR 2001).

Local Hydrology

The project site is located within the watershed of Little Salado Creek. Little Salado Creek is located west of the project site and flows east toward the San Joaquin River. During major storm events, Little Salado Creek overflows its undefined banks and sheet flows through existing orchards and agricultural fields toward I-5. At I-5, the sheet flow is blocked by the roadway embankment. The flow is then directed toward the Fink Road undercrossing.

From this point the creek flows under the California Aqueduct in two 78-inch-wide culverts. During the 100-year, 24-hour storm, the peak flow backs up behind the aqueduct embankment because of the restricted capacity of the culverts. During a 100-year storm event, Fink Road, at its lowest point between I-5 and the aqueduct, would flood to a depth of approximately five feet.

East of the Delta-Mendota Canal, Federal Emergency Management Agency (FEMA) maps indicate that storm flow passing through the Little Salado Creek/Delta-Mendota Canal over chute is contained in the channel until it reaches the Crows Landing Naval Air Station. The flow then spills across the Air Station as sheet flow. After passing the Air Station, the storm flow ponds behind the Southern Pacific Railroad embankment and the Main Canal, and is directed southward where it flows into Orestimba Creek south of Crows Landing.

On-Site Drainage

The project site receives an average of 11.05 inches of precipitation per year as measured at Newman (Western Regional Climate Center 2005). Storm water discharge from the project site sheet flows across the property, which flows in an easterly direction to the San Joaquin River, as described above.

FEMA digital Q3 flood maps for the area surrounding the project site as provided on the FEMA and ESRI map server were reviewed. Based in this information, the project site is not within the 100-year floodplain.

DISCUSSION

a) Violate any water quality standards or waste discharge requirements?

Less-than-Significant with Mitigation. The proposed project would involve construction of single-access tracker photovoltaic panels mounted on steel I-beams, access roads, utility buildings, and direct burial of electric cable extending to each individual solar tracker from the utility buildings. The depth of excavation would be no more than four to six feet deep on the project site, including direct burial of the steel I-beams. Ground-disturbing activities would have the potential to allow soil or runoff to enter adjacent streams or rivers, resulting in potential temporary, and short-term construction-related water quality impacts from stormwater runoff, erosion, or spills. Construction could coincide with part of the rainy season. Construction-related activities have the potential to temporarily impair water quality of disturbed and eroded soil, petroleum products, or construction-related wastes (e.g., solvents) could be discharged into receiving waters or onto the ground where they can be carried into receiving waters. Soil and associated contaminants that enter receiving waters through stormwater runoff and erosion can increase turbidity, stimulate algae growth, increase sedimentation of aquatic habitat, and introduce compounds that are toxic to aquatic organisms. Accidental spills of construction-related substances such as oils and fuels can contaminate both surface water and groundwater. The extent of potential impacts on water quality would depend on the following factors: tendency for erosion of soil types encountered, types of construction practices, extent of disturbed area, duration of construction activities, timing of particular construction activities relative to the rainy season, proximity to receiving water bodies, and sensitivity to those water bodies to construction-related contaminants.

With implementation of Mitigation Measure WQ-1, potential temporary and short-term impacts associated with violation of any water quality standards or waste discharge requirements would be reduced to a less-than-

significant level. Therefore, this impact is reduced to a less than significant level. No further mitigation is required.

- ▶ **Mitigation Measure WQ-1.** A Stormwater Pollution Prevention Plan (SWPPP) for the proposed project will be prepared by the project applicant, approved by the Stanislaus County Public Works Department prior to commencing with any ground-disturbing construction related activities, and implemented by the project applicant.
 - Best Management Practices (BMPs) will be included in the SWPPP for runoff, erosion and water quality, and the BMPs will be put in place and maintained during the duration of ground-disturbing activities during the rainy season or when rain is forecast.
- b) **Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?**

No Impact. Construction of a solar farm would not involve pumping or use of groundwater. Any water used during construction would be from a water truck. There would be no impact.

- c) **Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial on- or off-site erosion or siltation?**

Less-than-Significant with Mitigation. The proposed project would not alter existing drainage patterns or the course of any streams or rivers. Little Salado Creek has a defined alignment east of the project site, however as soon as it intersects with the project site Little Salado Creek loses its defined alignment and sheet flows across the project site toward I-5 as described above. Ground-disturbing activities would have the potential to allow soil or runoff to enter adjacent streams or rivers. The hydrologic design for the proposed project would result in all rainfall runoff being captured and detained by means of swales and temporary detention basins prior to releasing rainfall runoff off-site at a rate equal to or less than preconstruction conditions. Reducing project runoff to a rate equal to or less than preconstruction conditions through design of the proposed project’s on-site drainage system would not alter the existing drainage patterns in a manner which would result in substantial on- or off-site erosion or siltation impacts.

With implementation of Mitigation Measure WQ-2, on- or off-site erosion or siltation impacts would be reduced to a less-than-significant level. No further mitigation is required.

- ▶ **Mitigation Measure WQ-2.** A grading and drainage plan will be prepared, submitted to the Stanislaus County Public Works Department for approval prior to issuance of any new building permits, and implemented by the project applicant. Drainage calculations will be prepared as per the Stanislaus County Standards and Specifications that are current at the time a permit is issued. The plan will contain enough information to verify that all runoff will be kept from going onto adjacent properties, into Little Salado Creek or its tributaries, and into the Stanislaus County road right-of-way. All grading and drainage work for the site’s access roads will keep runoff within the historic (natural) drainage shed for that area. The grading and drainage plan will comply with the current Stanislaus County National Pollutant Discharge Elimination System (NPDES) General Permit and the Quality Control standards for New Development.

d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in on- or off-site flooding?

Less-than-Significant with Mitigation. The proposed project would not alter existing drainage patterns or the course of any streams or rivers as described above under section c). In addition, the hydrologic design for the proposed project would result in all rainfall runoff being captured and detained by means of swales and temporary detention basins prior to releasing rainfall runoff off-site at a rate equal to or less than preconstruction conditions. Reducing project runoff to a rate equal to or less than preconstruction conditions through design of the proposed project's on-site drainage system would not substantially increase the rate or amount of surface runoff in a manner which would result in on- or off-site flooding.

With implementation of Mitigation Measure WQ-3, on- or off-site flooding impacts would be reduced to a less-than-significant level because the project applicant would be required to prepare and implement a grading and drainage plan to accommodate the proposed project's site drainage. Therefore, this impact would be reduced to a less than significant level. No further mitigation is required.

- ▶ **Mitigation Measure WQ-3.** The applicant shall prepare a hydrologic analysis to calculate runoff from the project for both the before and after construction scenarios. This analysis shall include the cross culverts under I-5 and any structures upstream or downstream that could have a secondary impact within Caltrans right-of-way. The hydrologic analysis to calculate runoff and determine flows shall follow the Caltrans Highway Design Manual specifications.

e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less-than-Significant with Mitigation. Ground-disturbing activities would have the potential to allow soil or runoff to enter adjacent streams or rivers. Refer to section c) above regarding hydrologic design of the proposed project's drainage system. With implementation of Mitigation Measure WQ-2, this impact would be reduced to a less than significant level. No further mitigation is required.

f) Otherwise substantially degrade water quality?

Less-than-Significant with Mitigation. Refer to section a) above regarding the proposed project's potential to degrade water quality. In addition, refer to section c) above regarding hydrologic design of the proposed project's drainage system. With implementation of Mitigation Measure WQ-2, this impact would be reduced to a less than significant level. No further mitigation is required.

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No Impact. Development of the proposed solar energy farm would not involve construction or development of housing. Additionally, project site is not located within a 100-year flood hazard area. There would be no impact.

h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?

No Impact. The proposed project is not located within the 100-year flood hazard area; therefore project components would not impede or redirect flood flows. There would be no impact.

i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

No Impact. The proposed project would not alter existing flood risk reduction infrastructure, and the project site is not located in an area that is subject to protection from a levee or dam. There would be no impact.

j) Result in inundation by seiche, tsunami, or mudflow?

No Impact. The proposed project would not take place in areas subject to inundation by seiche, tsunami, or mudflow because the project site is not located near an ocean or areas prone to mudflows. There would be no impact.

3.3.10 LAND USE AND PLANNING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. Land Use and Planning. Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ENVIRONMENTAL SETTING

The project site is located in unincorporated Stanislaus County. The project site and project vicinity are rural in character. The project site includes two single-family residences, one of which is currently unoccupied, and approximately 1,687 acres of land currently planted with almond trees and barley fields. Immediately west of the project site is an existing bull fighting arena and associated facilities. There is no established “community.” The general plan land use designation for the site is Agriculture and zoning for the site is A-2 (General Agriculture). The general plan land use and zoning designations for the project site allow for agricultural uses and low-density residential uses (one residence for parcels under 20 acres and two residences for parcels over 20 acres). Public utility infrastructure is an allowable use with a conditional use permit from Stanislaus County.

Adopted plans applicable to the project site include the Stanislaus County General Plan (SCGP 1994) and the Airport Land Use Commission Plan (ALUCP 2004). No habitat conservation plan or natural community conservation plan has been adopted for the project site and vicinity.

DISCUSSION

a) Physically divide an established community?

Less-than-Significant Impact. Two single family residences are located within the project site, only one of which is currently occupied. The residence is currently owned and leased by Stanislaus County. These residences would not be occupied during project construction activities, but one would be occupied by an on-site caretaker associated with the proposed project during operation. No established communities exist in the vicinity of the project site that would be affected by the proposed project. Because the project site and vicinity are undeveloped and rural in character, impacts resulting from dividing and established community are less than significant. No mitigation is required.

b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Less-than-Significant Impact. The Stanislaus County General Plan designates the project site and the surrounding area as Agriculture and the site is zoned A-2. This designation allows for the development of

agricultural and low-density residential uses. Public utility infrastructure is an allowable use with a conditional use permit from Stanislaus County (Stanislaus County Zoning Ordinance, Section 21.20.030j). Prior to project development, a conditional use permit would be obtained as part of the proposed project. Also, the proposed project use is within the outer safety zone (Zone 4) of the Crow's Landing Naval Air Station (ALUCP 2004:21). Zone 4 allows for one dwelling unit/2.5 acres, a nonresidential density of up to 100 population/acre, a 108 gross floor area per population, and an average of 15% of open space. Utility infrastructure and agricultural uses are not prohibited in Zone 4 areas (ALUCP 2004: 17). Thus, the proposed project would not conflict with the ALUCP. For the reasons above, the proposed project would have a less-than-significant impact in regards to conflicts with adopted land use plans, policies, and regulations. No mitigation is required.

c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact. The project site is located within Stanislaus County; however, no habitat conservation plan or natural community conservation plan has been adopted for the project site and vicinity. Therefore, the proposed project would have no conflict with these plans and no physical direct or indirect impacts would result. No mitigation is required.

3.3.11 MINERAL RESOURCES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. Mineral Resources. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ENVIRONMENTAL SETTING

According to the Stanislaus County General Plan (1994), minerals found in the County include bermentite, braunite, chromite, cinnabar, garnet, gypsum, hausmannite, hydromagnesite, insite, magnesite, psilomelane, pyrobrsite, and rhodochrosite. In addition, small accumulations of lead, clay, and gold are also known to exist. From a commercial viewpoint, sand and gravel deposits are the only significant extractive resource in the County. The most significant deposits of sand and gravel are found in old stream beds and adjacent to the rivers and streams in the eastern portion of the County. The project site is not located in an area of known regionally important mineral resources.

According to the mineral land classification report prepared for the project site (California Division of Mines and Geology 1999), the project site is classified MRZ-3, meaning that not enough data exist to determine whether significant mineral resources are present.

DISCUSSION

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

Less-than-Significant. According to the Stanislaus County General Plan (1994), no significant mineral resources have been identified in the project site. As stated above, the project site is classified MRZ-3, meaning that not enough data exist to determine whether significant mineral resources are present. Because the project site does not contain any known deposits of regionally-important mineral resources and is not designated as a local mineral resource recovery site, this impact would be less than significant. No mitigation is required.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No Impact. No portion of the project site is delineated in the Stanislaus County General Plan (1994) or any other adopted land use plan as containing mineral resources of local importance. Therefore, construction of the proposed solar energy farm would not result in the loss of locally-important mineral resources. There is no impact. No mitigation is required.

3.3.12 NOISE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. Noise. Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ENVIRONMENTAL SETTING

The proposed project is located in a regionally remote area, but adjacent to and west of I-5 and northwest of the Fink Road Landfill. The city of Patterson and town of Crows Landing are located approximately 4 miles to the north and east, respectively. The city of Newman is located approximately 6 miles southeast. In addition, the abandoned Crows Landing Naval Air Station is located approximately 2 miles to the east.

Residences, as well as schools, places of worship, hospitals, convalescent (nursing) homes, hotels, and certain parks are land uses considered as noise-sensitive receptors which may be adversely affected by excessive noise.

Noise is unwanted or objectionable sound which can cause general annoyance, speech interference, sleep disturbance, or hearing impairment. Noise levels are measured as decibels (dB) on a logarithmic scale and weighted to frequencies audible by humans (“A weighted”) and indicated as dBA. Instantaneous noise levels are averaged for noise regulations as the equivalent 1-hour noise level (dBA L_{eq}) and the community noise equivalent level (CNEL) over a 24-hour period. CNEL averaging includes weighting for evening and nighttime noise to account for greater human sensitivity to noise during those hours.

Projects in Stanislaus County are subject to federal, state, regional, and local laws, ordinances, regulations, and standards that apply to noise impacts. Those that apply to the proposed project are identified below.

The State of California does not promulgate a statewide noise standard but requires that each county include a Noise Element within their General Plan for noise control. CEQA requires that significant environmental impacts be identified and that such impacts be eliminated or reduced to the extent feasible. The State CEQA Guidelines,

as amended suggest that noise changes in excess of standards, a substantial permanent increase above background, or a substantial temporary or periodic increase could be significant. Section XI of Appendix G of the State CEQA Guidelines, as amended (CCR, Title 14, Appendix G) sets forth some characteristics that may signify a potentially significant impact.

Stanislaus County addresses noise impacts through its General Plan and County Code. The Noise Element of the Stanislaus County General Plan uses noise exposure information to identify existing and potential noise conflicts through the Land Use Planning and Project Review processes. The Noise Element establishes exterior noise level standards and maximum allowable noise exposure from stationary noise sources at noise-sensitive land uses. For transportation noise sources (e.g., traffic, railroads, airports), the Noise Element establishes 60 dBA L_{dn} or less in outdoor activity areas of single-family residences, 65 dBA L_{dn} or less in community outdoor space for multi-family residences, and 45 dBA L_{dn} or less within noise sensitive interior spaces (Policy Two, Implementation Measure 1[a]). For stationary noise sources, new development of industrial, commercial, or other noise-generating land uses are not permitted if resulting noise levels would exceed 60 dBA L_{dn} in noise-sensitive areas. Additionally, development of new noise-generating land uses which are not preempted from local noise regulation would not be permitted if resulting noise levels exceed the performance standards shown in Table NOI-1 in residential areas or other noise-sensitive land uses.

Table NOI-1 Maximum Allowable Noise Exposure from Stationary Noise Sources¹		
	Daytime 7 a.m. to 10 p.m.	Nighttime 10 p.m. to 7 a.m.
Hourly L_{eq} , dBA	55	45
Maximum level, dBA	75	65
Notes:		
L_{eq} = energy mean (average) noise level; dBA = noise levels that are measured as decibels (dB) on a logarithmic scale and weighted to frequencies audible by humans (“A weighted”) and indicated as dBA		
¹ As determined at the property line of the receiving land use. When determining the effectiveness of noise mitigation measures, the standards may be applied on the receptor side of noise barriers or other property line noise mitigation measures.		
Source: Stanislaus County General Plan, Noise Element, Table 4.		

Lastly, the Stanislaus County Noise Element requires evaluation of mitigation measures for projects that would cause the L_{dn} at noise-sensitive uses to increase by 3 dBA or more and exceed the “normally acceptable” level, cause the L_{dn} at noise-sensitive uses to increase 5 dBA or more and remain “normally acceptable,” or cause new noise levels to exceed the noise ordinance limits (Policy Three, Implementation Measure 1).

Noise-generating sources in Stanislaus County are also regulated under the County Code, Chapter 10.46 (Noise Control). Property line and construction noise limits are established in this ordinance. Property line noise limits apply to noise generation from one property to an adjacent property with the existence of a sensitive receptor (if no receptor, an exception or variance to the standards may be appropriate). These standards do not apply to construction noise that occurs between 7 a.m. and 7 p.m. The following is the applicable portions of the Stanislaus County Noise Control Ordinance and Tables NOI-2 and NOI-3 highlight the applicable noise limits related to the ordinance.

Table NOI-2 Exterior Noise Level Standards		
Land Use Zone	Maximum A-Weights Sound Level as Measured on a Sound Level Meter (L_{max})	
	7 a.m. to 9:59 p.m.	10 p.m. to 6:59 a.m.
Noise Sensitive	45	45
Residential	50	45
Commercial	60	55
Industrial	75	75

Note: L_{max} = maximum instantaneous noise level during a specific period of time
Source: Stanislaus County 2010.

Table NOI-3 Cumulative Duration Allowance Standards	
Cumulative Duration	Allowance Decibels
Equal to or greater than 30 minutes per hour	Table NOI-2 plus 0 dBA
Equal to or greater than 15 minutes per hour	Table NOI-2 plus 5 dBA
Equal to or greater than 5 minutes per hour	Table NOI-2 plus 10 dBA
Equal to or greater than 1 minute per hour	Table NOI-2 plus 15 dBA
Less than 1 minute per hour	Table NOI-2 plus 20 dBA

Note: dBA = A-weighted decibel
Source: Stanislaus County 2010

Section 10.46.050 Exterior noise level standards. It is unlawful for any person at any location within the unincorporated area of the county to create any noise or to allow the creation of any noise which causes the exterior noise level when measured at any property situated in either the incorporated or unincorporated area of the county to exceed the noise level standards as set forth below:

1. Unless otherwise provided herein, the following exterior noise level standards shall apply to all properties within the designated noise zone:
2. Exterior noise levels shall not exceed the following cumulative duration allowance standards:
3. Pure Tone Noise, Speech, and Music. The exterior noise level standards set forth in Table NOI-2 shall be reduced by five dBA for pure tone noises, noises consisting primarily of speech or music, or reoccurring impulsive noise.
4. In the event the measured ambient noise level exceeds the applicable noise level standard above, the ambient noise level shall become the applicable exterior noise level standard.

Section 10.46.060 Specific noise source standards, Subsection E. Construction Equipment. No person shall operate any construction equipment so as to cause at or beyond the property line of any property upon which a dwelling unit is located an average sound level greater than 75 decibels between the hours of 7 p.m. and 7 a.m.

DISCUSSION

- a) **Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards?**

Less-than-Significant Impact.

Construction Noise

The Stanislaus County Noise Ordinance, Section 10.46.060(E) specifically regulates construction noise and limits construction activities. Construction noise, from a single piece of equipment or a combination of equipment, shall not exceed an average sound level greater than 75 dBA L_{eq} at the nearest sensitive receptor.

During construction of the proposed project, noise levels in the project site and vicinity would increase due to the use of construction equipment and vehicles. Typical construction vehicles and equipment can generate temporary and short-term maximum noise levels of 89 dBA at a distance of 50 feet when the equipment is under maximum load. Due to the nature of the proposed project's anticipated construction activity, with breaks and repositioning of equipment, hourly noise levels at 50 feet are predicted to average approximately 86 dBA L_{eq} from the center of each work area for site preparation activities (e.g., clearing and grubbing orchards, access road construction). Activities associated with utility trenching for electrical transmission lines and solar panel module installation (e.g., pile driving for setting of steel posts) would likely generate maximum hourly noise levels of 89 dBA L_{eq} at 50 feet.

The closest noise-sensitive receptor is a caretaker residence on the project site. Although the project applicant indicated that the caretaker would not be living on the project site during construction activities, for the purposes of this analysis the caretaker residence is considered the closest noise-sensitive receptor. Beyond the caretaker residence, the closest noise-sensitive receptors are located approximately 2,600 feet to the west of the project site at the bull fighting arena.

Users of the bull fighting arena would be located as close as 2,600 feet from construction activities. At 2,600 feet, noise levels would attenuate with distance to 40.3 dBA L_{eq} and 43.5 dBA L_{eq} from site preparation activities and solar panel installation activities, respectively, without accounting for noise reduction features such as structures or topography. Thus, noise levels at the nearest noise-sensitive receptor would not exceed Stanislaus County's most stringent allowable construction noise level limit of 75 dBA L_{eq} averaged for daytime construction activities. This impact would be less than significant. No mitigation is required.

Operational Noise

According to the Stanislaus County Noise Element, new development of industrial, commercial, or other stationary-noise generating land uses are not permitted if resulting noise levels would exceed 60 dBA L_{dn} in noise-sensitive areas. The proposed solar panel facilities would produce noise intermittently during maintenance activities from personnel, equipment, and vehicles on the project site. In addition, the solar panels themselves are anticipated to emit negligible noise levels from their slow rotation to stay in alignment with the sun. Overall operation of the proposed solar energy farm is not anticipated to generate any substantial noise and any noise generated is anticipated to be less than the ambient noise level due to existing area noise sources (e.g., traffic on I-5, operations at Fink Road Landfill). Thus, the proposed project would not result in the generation of new noise levels that would result in exceeding 60 dBA L_{dn} at the closest noise-sensitive receptor (i.e., caretaker residence). This impact would be less than significant. No mitigation is required.

b) Exposure of persons to vibration or generation of excessive groundborne noise levels?

Less-than-Significant Impact. Vibration or groundborne noise may be generated from operation of heavy vehicles and construction equipment during site preparation and solar panel installation activities. Specifically, pile driving is anticipated to occur. Operation of the constructed facilities would not include any substantial new vibration sources.

Construction vibration is dependent upon the amount and type of construction and the distance between construction activities and the nearest vibration-sensitive receptor. With the exception of pile driving, construction equipment vibration levels from construction activities are below the threshold of annoyance at distances greater than 50 feet.

The nearest residential structure (i.e., caretaker residence) is located approximately 2,600 feet from the center of construction activities. Operation of a pile driver is predicted to generate a vibration level of 51 vibration decibels (Vdb) and 0.001 peak particle velocity (PPV) at the nearest residential structure. Therefore, the residence is at sufficient distance that any project vibrations would not be perceptible, including those from pile driving. At the nearest vibration sensitive structure, the caretaker residence, this level would not exceed the Caltrans-recommended standards of 0.2 in/sec PPV or 80 VdB and therefore, there would be no potential for structural damage or annoyance to persons. Because the temporary construction vibration associated with on-site equipment would not be anticipated to expose sensitive receptors to or generate excessive groundborne vibration or groundborne noise levels, this impact would be less than significant. No mitigation is required.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

No Impact. The proposed project would not result in a substantial permanent increase in ambient noise levels in the project site and vicinity. The constructed facilities would produce some temporary and short-term noise during maintenance activities from personnel, equipment, and vehicles on the project site and is anticipated to emit negligible noise levels from the solar panel operations which are anticipated to be less than the ambient noise level due to existing area noise sources (e.g., traffic on I-5, operations at Fink Road Landfill). Therefore, the proposed project would not result in the exposure of persons to or generation of noise levels in excess of applicable standards or create a substantial permanent increase in ambient noise levels in the project vicinity. As a result, implementation of the proposed project would result in no impact. No mitigation is required.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less-than-Significant Impact. As discussed in the answer to question a) above, construction activities would result in temporary and short-term increased noise levels on the project site. Construction equipment could generate noise levels up to 89 dBA L_{eq} at 50 feet from the center of each construction work area. However, construction noise levels would attenuate with distance and are not anticipated to exceed the allowable noise level limits at the nearest noise-sensitive receptor (i.e., caretaker residence) during daytime activities under the Stanislaus County Noise Element and County Code. Although there would be a temporary and short-term increase in ambient noise levels during construction activities, noise levels would be less than the noise level limits established by Stanislaus County. Therefore, this impact would be less than significant. No mitigation is required.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The nearest operational airport to the project site is the Patterson Airport, located approximately 4 miles to the north. The nearest non-operational airport is Crows Landing Naval Air Station, located on the east

side of I-5 approximately 2 miles from the project site. Therefore, the proposed project would not expose people to excessive noise levels. As a result, the proposed project would have no impact with regard to airport noise. No mitigation is required.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The project site is not located within the vicinity of a private airstrip. Therefore, the proposed project would not expose people residing or working in the project site to excessive noise levels. As a result, the proposed project would have no impact with regard to airport noise. No mitigation is required.

3.3.13 POPULATION AND HOUSING

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. Population and Housing. Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing homes, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

ENVIRONMENTAL SETTING

The project site is located just west of the intersection of I-5 and Fink Road, approximately 4 miles southwest of Patterson in western Stanislaus County. Due to the rural nature of the project site and vicinity, it is difficult to quantify and predict area-specific population and housing trends. Countywide population and housing trends are addressed in the Stanislaus County General Plan (1994). The United States Census Bureau’s 2009 population estimate for Stanislaus County is 510,385. The nearest city counted in the 2000 United States Census is Patterson. The 2007 population estimate for Patterson is 19,136 (United States Census Bureau 2010).

The proposed project consists of approximately 800 acres of standalone photovoltaic tracker solar arrays that would transmit solar power from the site into PG&E’s power grid. The project does not propose the construction of new homes or businesses. There are currently two single-family residences located on the project site, one of which is not currently occupied, but there are no plans to move or demolish the structure. The residences would remain post construction, however neither would be occupied during construction or operation of the proposed project. Construction of the proposed project would employ 12–14 construction crew members per phase. It is estimated that one phase would be constructed each year, for 5 years, with the first phase beginning in March 2011.

DISCUSSION

- a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?**

No Impact. The proposed project consists of a solar energy farm that does not include the construction of any new homes or businesses. In addition, the operation of the solar energy farm would not require any full-time maintenance or staff people. Therefore the proposed project has no net increase of growth nor would it induce direct or indirect growth in the project area. There is no impact. No mitigation is required.

- b) Displace substantial numbers of existing homes, necessitating the construction of replacement housing elsewhere?**

No Impact. Two existing housing units are present on the project site, although only one is inhabited. The inhabitant of the occupied housing unit would not remain during construction or operation of the proposed

project. Since only one residence would be displaced, the proposed project would not displace a substantial number of existing housing or require the construction of replacement housing. There is no impact. No mitigation is required.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

Less-Than-Significant Impact. Two existing housing units are present on the project site, although only one is inhabited. The inhabitant of the occupied housing unit would not remain on-site during construction or operation of the proposed project. Since only one residence would be displaced, the proposed project would not displace a substantial number of existing housing or require the construction of replacement housing. Therefore this impact would be less than significant. No mitigation is required.

3.3.14 PUBLIC SERVICES

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. Public Services. Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ENVIRONMENTAL SETTING

Existing fire protection service is provided by the West Stanislaus County Fire Protection District (District), specifically the station located at 22012 G Street, Crows Landing, California (Amy Best pers. comm. 2010). The West Area Command of the Stanislaus County Sheriff’s Department provides law enforcement services to the project site. The West Area Command station is located at 33 South Del Puerto Avenue, Patterson, California (Stanislaus County Sheriff’s Department 2009). No schools, parks, or other public facilities exist in close proximity to the project site.

DISCUSSION

- a) **Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:**

Fire protection?

Less-than-Significant Impact. The proposed project is not associated with a direct immigration, or population increase, that would increase the use of or demand for existing public services. Emergency access roads are proposed as safety measures for operation of the solar energy farm, for access during construction, and for maintenance vehicles. The project applicant has coordinated with representatives from the District to assure that the access roads are built according to the District’s specifications for design requirements and layout (see Exhibit 2-3). In addition, a Knox Box rapid entry system would be installed at the entry gate to the project site according to the District’s stipulations (as discussed in Section 2.5.9). This impact is less than significant. No mitigation is required.

Police Protection?

Less-than-Significant Impact. The proposed project is the development of a solar energy farm and it is not anticipated that it would produce an appreciable increase of service calls for the Stanislaus County Sheriff's Department. The proposed project would have no major effect on existing local law enforcement service providers or result in the need for new law enforcement services. This impact is less than significant. No mitigation is required.

Schools?

No Impact. The proposed project is the development of a solar energy farm and would have no effect on existing local schools or result in the need for new schools. No population would be generated because the proposed project does not propose the development of new residences. There would be no impact. No mitigation is required.

Parks?

No Impact. The proposed project is the development of a solar energy farm and would have no affect on the use of parks in the area. No population would be generated because the proposed project does not propose the development of new residences. There would be no impact. No mitigation is required.

Other public facilities?

No Impact. The proposed project is the development of a solar energy farm and would not adversely affect the provision of other public facilities, such as libraries or recreational facilities, because the proposed project would not generate an increase in population. There would be no impact. No mitigation is required.

3.3.15 RECREATION

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. Recreation. Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ENVIRONMENTAL SETTING

The proposed project would not be located near any existing neighborhood or regional parks or other recreational facilities. The closest recreational facilities are located in Patterson, California, approximately 4 miles north of the project site.

DISCUSSION

- a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**

No Impact. The proposed project is a solar energy farm and would not cause substantial deterioration of existing recreation facilities. No population would be generated, because the proposed project does not include the construction of new residences. There would no impact. No mitigation is required.

- b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?**

No Impact. The proposed project does not require or propose the construction or expansion of existing recreational facilities, which might cause a substantial adverse change to recreational facilities, or result in the deterioration of existing facilities. There is no impact. No mitigation is required.

3.3.16 TRANSPORTATION/TRAFFIC

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. Transportation/Traffic. Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ENVIRONMENTAL SETTING

Roadways surrounding the project site include I-5, Fink Road, Ward Road, and Oak Flat Road (see Exhibit 2-2). Traffic patterns within the project vicinity are related to existing agricultural operations, rural residences, and pass-thru traffic along I-5.

I-5, a major north-south freeway extending through the entire length of California, provides regional access to western Stanislaus County. In the project vicinity, I-5 is a four-lane divided freeway carrying approximately 38,000 vehicles per day, with 3,850 p.m. peak-hour vehicles near the interchange with Fink Road (Caltrans 2008).

Fink Road, an east-west, two-lane rural roadway, provides the only direct access to the project site. The Fink Road interchange with I-5 is a standard diamond configuration, with Fink Road crossing under the elevated freeway. East of State Route 33 (SR 33), Fink Road becomes Crows Landing Road and serves as a major route to the city of Modesto. Approximately 1 mile of Fink Road extends west of I-5 and terminates within the southeast corner of the project site. In 2008, Fink Road had an average daily traffic (ADT) of 1,682 vehicles between I-5 and Ward Road, and an ADT of 1,814 vehicles between Bell Road and Medlin Road (Halverson pers. comm. 2010).

Oak Flat Road, an east-west, two-lane rural roadway, is just to the north of the project site. Oak Flat Road does not provide access to I-5, but the roadway crosses underneath an elevated portion of the freeway. Oak Flat Road begins at Diablo Grande Parkway, northwest of the project site, and terminates at Ward Road in the east. In 2007, Oak Flat Road had an ADT of 153 vehicles between I-5 and Ward Road (Halverson pers. comm. 2010).

Ward Road, a north-south, two lane rural roadway, is east of the project site and east of I-5. Ward Road begins in the north at SR 33 and travels south through the community of Patterson and terminates at Fink Road, just east of the Fink Road/I-5 interchange. In 2007, Ward Road had an ADT of 483 vehicles between Fink Road and Oak Flat Road (Halverson pers. comm. 2010).

DISCUSSION

- a) **Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?**

Less-than-Significant Impact. Construction activities would take place on the project site. These construction activities would occur in five phases. Each phase would require 12-14 construction crew members working between the hours of 7:30 a.m. to 4:00 p.m. Monday through Friday. During construction, the proposed project would require up to 14 trips during the a.m. peak hour to the project site and 14 trips during the p.m. peak hour from the project site. The only effects of construction of the proposed project on traffic around the project site would be from entry and exit of construction vehicles on and off of the project site from Fink Road, which would be temporary and short-term and would occur on weekdays during project construction. The addition of up to 14 vehicles during peak hours on Fink Road, nearby roadways such as Oak Flat Road and Ward Road, and I-5 per day during weekdays would not be a substantial increase above the existing traffic volumes. Similarly, the addition of 14 vehicles at one time accessing the project site would not affect current levels of service at area intersections. Construction equipment would be transported to the site and be stored on-site until it is no longer needed. Since equipment would remain on-site, it would be unlikely to interfere with traffic. Because on-site construction activities that would affect traffic would be minor and temporary, on-site construction-related impacts would be less than significant. No mitigation is required.

The proposed project would not require any permanent on-site employees. On occasion, crews would come to the project site on a quarterly basis to maintain and wash the solar panels and to maintain on-site vegetation. Therefore, there would be no net addition of employees or residents at the project site as a result of project operation.

Therefore, construction and operation of the proposed project would not cause a substantial increase in existing traffic loads or result in changes to current levels of service, making this a less-than-significant impact. No mitigation is required.

- b) **Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?**

Less-than-Significant Impact. Please refer to item a), above, for a discussion of impacts on level of service standards in the project vicinity. Therefore, this would be a less-than-significant impact.

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No Impact. The nearest airports include the Crows Landing Naval Air Station, approximately 2.0 miles east; and Patterson Airport, approximately 4.0 miles north of the project site. Further away lies the Westley Airport which is used for crop dusters. The proposed project includes 7,000 single-access tracking arrays mounted on 20-foot-long steel I-beam posts, which would be constructed in five phases. Depending on time of day and the position of the solar panels, the maximum height of these tracking arrays would be up to 14 feet high. These tracking arrays at a maximum height of 14 feet would not interfere with air traffic patterns. As a result, there would be no impact on air safety. No mitigation is required.

d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. The proposed project would include new internal all-weather maintenance and emergency access roads (access roads). The access roads would begin at the entrance gate in the south-central portion of the project site. The access road system would serve as a means for emergency, construction, and maintenance vehicles to access the site. The access roads would be 20-feet-wide and be set back 10 feet from the edge of each tracking array. The design of these access roads would meet all applicable regulations and requirements for such access, which include the California Fire Code and the Stanislaus County Code (Chapter 16.15). The proposed project does not include any design features that would create a hazard, such as sharp turns in the access roads. The proposed project would not contain any uses that would be incompatible with surrounding uses, so it would not create a substantial hazard. Therefore, the project would have no impact. No mitigation is required.

e) Result in inadequate emergency access?

No Impact. Occasional vehicle access to the site for solar panel and vegetation maintenance would be required at the site. The proposed project would include the construction of access roads that would connect to Fink Road. In addition, the project applicant consulted with the West Stanislaus County Fire Protection District regarding the proposed access roads on the project site for their feedback and approval on the design. Therefore, the proposed project would not affect emergency access to the project site, resulting in no impact. No mitigation is required.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

No Impact. Alternative transportation modes within the project vicinity would not be adversely affected by project construction and maintenance. The project site primarily consists of agricultural lands and rural residences. Access to the project site would be provided via existing roads. Construction traffic on local roads would cease following completion of each phase of the proposed project. There are not adopted alternative transportation plans covering the project site and vicinity. Therefore, the proposed project would not conflict with any adopted policies, plans, or programs that support alternative transportation facilities. There would be no impact. No mitigation is required.

3.3.17 UTILITIES AND SERVICE SYSTEMS

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. Utilities and Service Systems. Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

ENVIRONMENTAL SETTING

The existing single-family residence currently draws water from an on-site well and wastewater is collected by an on-site private septic system. The second on-site residence is uninhabited. No wastewater treatment is currently provided to the project site. The project site is located within the Del Puerto Water District service boundaries (Aggers, pers. comm., 2010). Water for on-site agricultural operations is provided by the California State Water Project (SWP) and is distributed by the Del Puerto Water District. The SWP is a water storage and delivery system of reservoirs and aqueducts that is operated and maintained by the California Department of Water Resources (DWR). This facility provides water supplies for 23 million Californians and 755,000 acres of irrigated farmland (DWR 2010). In 2009, the residential uses at the project site currently use approximately 200 gallons of water per day and agricultural uses draw approximately 322,592,490 gallons per year or 883,815 gallons per day (Aggers, pers. comm., 2010). Historic water supply quantities at the project site have diminished gradually since 1992 due to legislative and judicial rulings. For the Del Puerto Water District, supplies are estimated to be at 35% of their original quantities from the time the District was formed. For the project site, this translates to the availability of 1,386 acre feet of water originally verses 486 acre feet estimated in 2010 (Email correspondence from J. Aggers, Stanislaus County, 2010). The Bertolotti Disposal and Transfer Station in Ceres provides solid waste services to the project site (Wyse, pers. comm., 2010a). From the transfer station, solid waste is then brought to the Fink Road Landfill, approximately 0.25-mile southeast of the project site. According to the California Department of Resources Recycling and Recovery (CalRecycle), Fink Road Landfill has a total capacity of 14,500,000 cubic yards (cy) with a remaining capacity of 10,000,000 cy. The landfill's estimated

closure date is 2023 (CalRecycle 2010). However, the County is in the process of obtaining a Revised Solid Waste Facilities Permit from CalRecycle. The permit application would include plans for to expand capacity at the landfill by filling in the available airspace between two existing fill areas within the landfill footprint, and increasing the vertical elevation limits. When the permit is approved, the Fink Road Landfill would have a total capacity of 16,780,000 cy, and it's closure would be extended by up to 15 years to 2038 (Wyse, pers. comm., 2010b). The Class II and III landfill accepts agricultural, ash, construction/demolition, industrial, mixed municipal, biosolid, and tire waste.

DISCUSSION

a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

No Impact. The proposed project would not expect to generate new wastewater at the project site. Any increase in the generation of wastewater associated with temporary construction personnel would be accommodated by temporary portable restrooms, which would be removed after project construction. Therefore, there would be no impact in regard to wastewater treatment requirements. No mitigation is required.

b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less-than-Significant Impact. Existing uses on the project site that demand water include agricultural uses and one single-family residence. Upon construction of the proposed project, the single-family residence would be occupied by an on-site caretaker associated with the proposed project and approximately 887 acres of the 1,687-acre project site would remain in agricultural use. With implementation of the proposed project, about 463,697 gallons of water per day would be used for irrigation purposes and 200 gallons of water per day would be supplied for residential use on site. The proposed project would not result in any additional permanent on-site employment, and no additional permanent restrooms would be constructed at the project site. The existing residence would continue to operate on a septic system, similar to existing conditions. On a quarterly basis, a boom truck mounted with a water spray rig would wash dust and debris off of the photovoltaic panels. About 62,500 gallons of water would be used during quarterly maintenance, and the water would be trucked in by a maintenance contractor with water obtained and permitted by a nearby water supplier, such as the Crow's Landing CSD (located approximately four miles to the east of the project site). Total annual water demand at the project site after project implementation would be 169,518,405 gallons. Consequently, water usage at the site would be reduced to about a half of existing demand. With implementation of the proposed project, no new facilities or expansion of existing facilities would be required. Because water usage at the project site would be reduced compared to existing conditions, the proposed project would have a less-than-significant impact on water and wastewater facilities. No mitigation is required.

c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less-than-Significant with Mitigation. Please refer to item d) and e) in Section 3.3.9, "Hydrology and Water Quality" of this checklist for a discussion of stormwater drainage and associated facilities. With implementation of Mitigation Measures WQ-2 and WQ-3, the construction of new storm water drainage facilities or expansion of existing facilities would not be required as grading and drainage would direct runoff associated with the proposed project to flow within the historic (natural) drainage shed for the project area. Therefore, this impact would be less than significant. No further mitigation is required.

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

Less-than-Significant Impact. As discussed above, water is currently supplied to the project site for agricultural uses and the existing single-family residence. With development of the proposed project, water supplied to the project site for irrigation would be reduced by approximately half. Although water (approximately 62,500 gallons) would be trucked on to the site on a quarterly basis for photovoltaic panel maintenance, the proposed project would not require any on-site water infrastructure. Overall, water demand at the project site would be reduced. Therefore, the proposed project would have a less-than-significant impact on water supply. No mitigation is required. However, the project applicant has committed to preparing a Water Supply and Demand Plan, as identified in Section 2.5.9 to ensure that a reliable source of water is available in the event that the project was to use more water than currently projected.

e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments?

Less-than-Significant Impact. The proposed project would not generate additional wastewater. Consequently, the proposed project would result in a less-than-significant impact on wastewater treatment. No mitigation is required.

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less-than-Significant Impact. During project construction, the only potential solid waste that would be generated is the cardboard packaging from the solar panels. The cardboard would be sent to an off-site recycling facility. Since the project site would not be occupied by any new permanent employees, no new solid waste would be generated by the proposed project. Additionally, decommissioning of the facility back to agricultural use would take place at the end of the facility's useful economic life. Because no new solid waste would be generated and because the project applicant would recycle cardboard packaging from the solar panels, implementation of the proposed project would have a less-than-significant impact on the solid waste disposal. No further mitigation is required.

g) Comply with federal, state, and local statutes and regulations related to solid waste?

Less-than-Significant Impact. The proposed project would be required to divert (recycle) 50% of solid waste generated by both construction and operation to comply with the 50% solid waste diversion rate mandated by the California Integrated Waste Management Act of 1989 (AB 939) and the Stanislaus County Source Reduction and Recycling Element. As discussed in item f) above, no solid waste would be generated by operation of the proposed project and cardboard waste generated during project construction would be recycled. Thus, the proposed project would have a less-than-significant impact because the project would comply with regulations related to solid waste and because the project applicant would recycle the cardboard packaging from the solar panels, as discussed in the project description. No mitigation is required.

3.3.18 MANDATORY FINDINGS OF SIGNIFICANCE

ENVIRONMENTAL ISSUES	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. Mandatory Findings of Significance.				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Authority: California Public Resources Code Sections 21083, 21083.5.

Reference: California Government Code Sections 65088.4.

California Public Resources Code Sections 21080, 21083.5, 21095; *Eureka Citizens for Responsible Govt. v. City of Eureka* (2007) 147 Cal.App.4th 357; *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th at 1109; *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656.

DISCUSSION

- a) **Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?**

Less than Significant with Mitigation. As described in Section 3.3.4, “Biological Resources”, the impacts to habitat for special-status wildlife species would not be substantial; however the unanticipated, but potential, loss of individuals for burrowing owl, valley elderberry longhorn beetle, and San Joaquin kit fox is considered potentially significant. In addition, it is not known if any federally protected waters of the United States as defined by Section 404 of CWA are present on the project site because a formal wetland delineation has not been completed. There are no natural drainage features but altered wetland features may be considered jurisdictional by the USACE provided they meet the federal criteria. Potential jurisdictional wetlands in the project area are limited to excavated drainages ditches, including what appears to be a realigned section of Little Salado Creek, and a farm pond. Implementation of Mitigation Measures BIO-1 and BIO-2 make certain that potential impacts to special-status species and potential wetlands in the project site are reduced to a less-than-significant level. Therefore, no further mitigation is required.

Two cultural resources have been identified within or immediately adjacent to the project site. The first resource consists of the historic-era route of Fink Road which has been recommended ineligible to the CRHR. The second resource is an undefined scatter of prehistoric artifacts documented along Little Salado Creek that could not be relocated during the AECOM reconnaissance survey. Implementation of Mitigation Measures CR-1 and CR-2 would ensure that potential impacts to the known and unknown cultural resources in the project area are reduced to a less-than-significant level. No further mitigation is required.

- b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)**

Less than Significant with Mitigation. The proposed project could have a substantial environmental effect on human beings as a result of air quality emissions from the construction of the solar energy farm, the use of heavy equipment during construction, and stained soil near the existing onsite fueling station. These impacts are considered significant, yet implementation of Mitigation Measure AQ-1 would reduce this impact to a less-than-significant level. No further mitigation is required.

- c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?**

Less than Significant with Mitigation. The proposed project could have an adverse affect on human beings as a result of air quality emissions from the construction-related activities associated with the proposed solar energy farm. This impact is considered less-than-significant, because the implementation of Mitigation Measure AQ-1 would reduce temporary and short-term construction-related air quality impacts to a less-than-significant level. No further mitigation is required.

4 REFERENCES

- California Climate Action Team. 2006. The California Climate Action Registry (CCAR) *General Reporting Protocol* Version 3.0. Available: <http://www.climateregistry.org/tools/protocols/general-reporting-protocol.html> Assessed: July 2010.
- California Department of Conservation, Farmland Mapping and Monitoring Program, Prime Farmland Definition. <http://www.conservation.ca.gov/dlrp/fmmp/overview/Pages/prime_farmland_fmmp.aspx> Accessed July 13, 2010.
- California Department of Fish and Game (DFG). 1995. Staff Report on Burrowing Owl Mitigation. California Department of Fish and Game, Sacramento, CA.
- California Department of Forestry and Fire Protection. 2000. Natural Hazard Disclosure (Fire) Map images and data. Available: <<http://www.fire.ca.gov/ab6/ab6lst.html>>. Assessed: July 13, 2010.
- California Department of Transportation. 2007. California Scenic Highway Mapping System. Available: http://www.dot.ca.gov/hq/LandArch/scenic_highways/index.htm. Assessed: July 14, 2010.
- California Department of Water Resources, California State Water Project Overview, <http://www.water.ca.gov/swp/>. Accessed July 14, 2010.
- California Energy Commission. 2006. *Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004*. (Staff Final Report). Publication CEC-600-2006-013-SF. Available: <http://www.energy.ca.gov/2006publications/CEC-600-2006-013/CEC-600-2006-013-SF.PDF>. Accessed in July 2010.
- California Energy Commission. 2006. *Our Changing Climate, Assessing the Risks to California: (Summary Report)*. Publication CEC-500-2006-077. Available: <http://www.energy.ca.gov/2006publications/CEC-500-2006-077/CEC-500-2006-077.PDF> Accessed in July 2010.
- California Energy Commission July 9, 2010. California's Major Sources of Energy. April 2009. Available at <http://energyalmanac.ca.gov/overview/energy_sources.html>.
- California Geological Survey. 2007. Index to Official Maps of Earthquake Fault Zones. Available: http://www.consrv.ca.gov/CGS/rghm/ap/Map_index/index.htm. Accessed July 2010.
- . 2010. Probabilistic Seismic Hazard Assessment Mapping Ground Motion Page. Available: <http://redirect.conservation.ca.gov/cgs/rghm/pshamap/pshamap.asp>. Accessed July 2010.
- California Natural Diversity Database. 2010 (March). California Department of Fish and Game, Wildlife and Habitat Data Analysis Branch. Sacramento, CA.
- CalRecycle. 2010. Facility/Site Summary Details: Fink Road Landfill (50-AA-0001). Available: <http://www.calrecycle.ca.gov/SWFacilities/Directory/50-AA-0001/Detail/>. Accessed July 14, 2010.
- Cao, T., W. A. Bryant, B. Rowshandel, D. Branum, and C. J. Wills. 2003. The Revised 2002 California Probabilistic Seismic Hazard Maps. Available: http://www.consrv.ca.gov/cgs/rghm/psha/fault_parameters/pdf/2002_CA_Hazard_Maps.pdf. Accessed July 2010.

- Endangered Species Recovery Program (ESRP). 2009. Conservation of San Joaquin Kit Foxes in Western Merced County, California. Prepared for the U.S. Bureau of Reclamation, South-Central California Area Office. California State University, Stanislaus. Fresno, CA.
- Hart, E. W., and W. A. Bryant. 1999. Fault-Rupture Hazard Zones in California, Alquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Fault Zone Maps. Special Publication 42. California Division of Mines and Geology. Sacramento, CA. Available: <ftp://ftp.consrv.ca.gov/pub/dmg/pubs/sp/Sp42.pdf>. Accessed July 2010.
- Jennings, C. W. 1994. Fault Activity Map of California and Adjacent Areas. California Division of Mines and Geology, Geologic Data Map No. 6. Sacramento, CA.
- National Agricultural Imagery Program (NAIP). 2009. United States Department of Agriculture. Available at: <http://www.apfo.usda.gov/FSA/apfoapp?area=contact&subject=landing&topic=landing>. Accessed: July 1, 2010. Salt Lake City, UT.
- Natural Resources Conservation Service. 2009. Web Soil Survey. Available: <http://websoilsurvey.nrcs.usda.gov/app/HomePage.htm>. Accessed August 2010.
- Neil O. Anderson. 2010. Phase I Environmental Site Assessment, Fink Road Solar Farm, 4401, 4881 and 4885 Fink Road, Newman, California. Prepared for: JKB Energy. April 8, 2010.
- Office of Environmental Health Hazard Assessment (OEHHA). 2003. Air Toxics Hot Spots Program Risk Assessment Guidelines: The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments. August, 2003. Available at < www.oehha.ca.gov/air/hot_spots/HRAguidefinal.html>.
- Sacramento Metropolitan Air Quality Management District. 2003. Roadway Construction Emissions Computer Model Version 5.1. Available < <http://www.airquality.org/ceqa/index.shtml>>.
- San Joaquin Valley Air Pollution Control District. 2002 (January). *Guide for Assessing and Mitigating Air Quality Impacts*. Fresno, CA.
- SCS Engineers/EDAW. 2001. Fink Road Landfill Expansion Project Draft Environmental Impact Report. Prepared for Stanislaus County.
- Shaw Environmental, Inc. 2009. Initial Study/Mitigated Negative Declaration for the Proposed Fink Road Landfill In-Fill Project, Stanislaus County, California. Prepared for Stanislaus County Department of Environmental Resources. Sacramento, CA.
- Stanislaus County, Stanislaus County Code, Title 16, Chapter 55. <<http://qcode.us/codes/stanislauscounty/>>. Accessed July 26, 2010.
- Stanislaus County General Plan. 1994. General Plan Support Documentation Chapter 3-Conservation.
- Stanislaus County Planning and Community Development, Stanislaus County General Plan Land Use Map, September 26, 2007.
- Stanislaus County Planning and Community Development, Stanislaus County Zoning Map, February 16, 2007.
- Stanislaus County Sheriff's Department. 2009. <http://www.stanislaussheriff.com/>. Assessed June 29, 2010.
- Stanislaus County Zoning Ordinance, Section 21.20.030j, December 2007.

- University of California Museum of Paleontology (UCMP). 2010. Museum of Paleontology Database. Available: <<http://ucmpdb.berkeley.edu/loc.html>>. Accessed July 2010.
- United States Census Bureau. 2010. Last Revised: April 22, 2010. State and County Quick Facts. Available: <<http://quickfacts.census.gov/qfd/states/06/06099.html>>. Assessed: July 1, 2010.
- U.S. Fish and Wildlife Service (USFWS). 1999. Conservation Guidelines for the Valley Elderberry Longhorn Beetle. Sacramento, CA.
- Wagner, D. L., E. J. Bortugno, and R. D. McJunkin. 1991. Geologic Map of the San Francisco-San Jose Quadrangle. Regional Geologic Map Series, Map No. 5. California Division of Mines and Geology. Sacramento, CA.
- West Stanislaus County Fire Protection District. 2010. <http://www.weststanfire.org/index.html>. Assessed: June 29, 2010.
- Zhu, Yifang, W. C. Hinds, S. Kim, and S. Shen. 2002. Study of Ultrafine Particles Near a Major Highway with Heavy-duty Diesel Traffic. *Atmospheric Environment* 36:4323-4335.

Personal Communications

- Barber, Daniel. Permit officer. San Joaquin Valley Air Pollution Control District, Fresno, Ca. June 30, and July 15, 2010—telephone conversations.
- Best, Amy. Secretary. West Stanislaus County Fire Protection District, Patterson, Ca. June 29, 2010—telephone conversation.
- Wyse, Rachel. Assistant Planner, Stanislaus County Planning and Community Development, electronic communication with AECOM, Subject: UP 2010-03- Fink Road Solar Farm, June 11, 2010.
- Wyse, Rachel. Assistant Planner, Stanislaus County Planning and Community Development, electronic communication with AECOM, Subject: Re: Fw: Ag/LU Questions, July 7, 2010.
- Wyse, Rachel. Assistant Planner. Stanislaus County Planning and Community Development, Modesto, CA. July 14, 2010a—e-mail message to Rachel Galaraga of AECOM regarding solid waste services; August 5, 2010b—e-mail message to Rachel Galaraga of AECOM regarding Fink Road Landfill.

This page intentionally left blank.

5 LIST OF PREPARERS

STANISLAUS COUNTY

Kirk Ford Planning Director
Angela Freitas.....Deputy Director
Rachel Wyse..... Assistant Planner

AECOM

Francine Dunn Project Manager
Chris MundhenkAssistant Project Manager
Taryn Nance Project Coordinator; Aesthetics, Cultural Resources, Hazards and Hazardous
Materials, Mineral Resources, Population and Housing, Public Services,
Recreation, Mandatory Findings of Significance
Rachel Galaraga..... Agricultural and Forest Resources, Land Use and Planning, Transportation/Traffic,
Utilities and Service Systems
Wendy Copeland Geology and Soils
Leo Edson.....Biological Resources
Michael J. Wolf Air Quality, Greenhouse Gas Emissions
Chris Shields..... Noise
Lisa Clement..... GIS
Charisse Case Publishing Specialist

This page intentionally left blank.

Stanislaus County

Planning and Community Development

1010 10th Street, Suite 3400
Modesto, CA 95354

Phone: (209) 525-6330
Fax: (209) 525-5911

Mitigation Monitoring Plan

Adapted from State CEQA Guidelines Section 15097 Final Text, October 26, 1998

January 18, 2012

1. Project title and location: Use Permit Application No. 2010-03 – Fink Road Solar Farm

4401 & 4881 Fink Road, west of Interstate 5, in the Newman/Crows Landing area. APN: 025-012-016, 025-012-017, 025-012-031, 025-012-033, 027-033-012.
2. Project Applicant name and address: JKB Energy
941 E. Monte Vista Avenue
Turlock, CA 95381
3. Person Responsible for Implementing Mitigation Program (Applicant Representative): Scott Belyea – JKB Energy
4. Contact person at County: Rachel Wyse, Assistant Planner (209) 525-6330

ENVIRONMENTAL COMMITMENTS:

The following lists all of the environmental commitments that the project applicant has committed to implementing as part of the project and that the County will adopt as conditions of approval.

- The project applicant will provide basic information to ensure that a reliable source of water can serve the project in normal and drought years during the project's life. The project applicant will prepare a Water Demand and Supply Plan that will document a reliable source of water.
- The project applicant will prepare a Decommissioning Plan that will ensure that the project site is restored to preproject conditions, including on-site surface waters, at the end of the project's life.
- In addition to the special-status wildlife surveys set forth in Mitigation Measure BIO-1, the project applicant will conduct surveys for Swainson's Hawk, loggerhead shrike, tricolored blackbird, hoary bat, western spadefoot toad, and San Joaquin whipsnake. The project applicant will prepare a Wildlife Survey Report that documents the results of the wildlife surveys and submit the report to the County prior to construction. The survey report shall include the following information:
 - an identification of the biologist(s) conducting the surveys and their qualifications;
 - the date(s) of the wildlife surveys;
 - the times of day the surveys were conducted;
 - the locations on the project site and buffer areas that were surveyed; and
 - any other information necessary for the County to ensure compliance with state and federal laws and regulations.
- The project applicant will avoid and minimize impacts on biological resources during project construction and operation. A qualified biologist will be present during the initial site preparation and construction to ensure that significant impacts to biological resources are appropriately

mitigated. All employees will be provided with information regarding all protected natural features and the artificial drainage system, explaining the area's biogeochemical, water quality, and flood conveyance functions and values, and outlining activities that are prohibited to adequately protect the channelized drainage features.

- Consistent with Mitigation Measure HM-2, the project applicant will prepare a Phase II Environmental Site Assessment prior to construction to determine whether toxic materials could be present in the soil at the project site.
- Consistent with Mitigation Measure HM-3, the project applicant will disclose the presence of any abandoned oil and gas exploration well on the project site, and impose a buffer zone to ensure that impacts to workers will be minimized.
- The project applicant will implement all other Mitigation Measures set forth in this document as part of the project.

MITIGATION MEASURES AND MONITORING PROGRAM:

List all Mitigation Measures by topic as identified in the Mitigated Negative Declaration and complete the form for each measure.

III. AIR QUALITY

No. 1 Mitigation Measure AQ-1: Implement all feasible fugitive dust control requirements of the San Joaquin Valley Air Pollution Control District (SJVAPCD), Regulation VIII. The following measures shall be implemented to reduce particulate matter less than or equal to 10 microns in diameter (PM₁₀) exhaust emissions and further reduce the already less-than-significant impacts associated with reactive organic gas (ROG) and oxides of nitrogen (NO_x) emissions:

- Provide commercial electric power to the project site in adequate capacity to avoid or minimize the use of portable electric generators and any other equipment.
- Where feasible, substitute electric-powered equipment for diesel engine driven equipment, or implement the use of diesel particulate traps.
- When not in use, avoid idling of on-site equipment.
- Where feasible, avoid operation of multiple pieces of heavy duty equipment.
- Require contractors to use the best available emission reduction and economically feasible technology on an established percentage of the equipment fleet. It is anticipated that in the near future PM₁₀ control equipment will be available. The SJVAPCD shall be consulted with on this process. This requirement shall be included in construction bid specifications.

Who Implements the Measure:	Applicant
When should the measure be implemented:	During Construction
When should it be completed:	When construction is completed
Who verifies compliance:	San Joaquin Valley Air Pollution Control District
Other Responsible Agencies:	Stanislaus County Public Works; Stanislaus County Planning Department

No. 2 Mitigation Measure AQ-2: Comply with SJVAPCD's Regulation VIII-Fugitive Dust Prohibitions and implement the following applicable control measures, as required by law:

- The project applicant/operator shall submit a Dust Control Plan to the Air Pollution Control Officer (APCO) prior to the start of any construction activity on any site that will include 5 acres or more of disturbed surface area for non-residential development, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials. Construction activities shall not commence until the APCO has approved or conditionally approved the Dust Control Plan. An owner/operator shall provide written notification to the APCO within 10 days prior to the commencement of earthmoving activities via fax or mail. The requirement to submit a dust control plan shall apply to all construction related activities conducted at the project site.
- The project applicant/operator shall submit a construction notification form to the APCO at least 48 hours prior to the start of any construction activity on the project site that includes greater than one acre of disturbed surface area.

Who Implements the Measure:	Applicant
When should the measure be implemented:	Prior to construction and/or grading
When should it be completed:	Prior to construction of each Phase
Who verifies compliance:	San Joaquin Valley Air Pollution Control District
Other Responsible Agencies:	Stanislaus County Public Works Department, Stanislaus County Planning Department

No. 3 Mitigation Measure AQ-3: Implement SJVAPCD-recommended enhanced and additional control measures to further reduce fugitive PM₁₀ dust emissions from public roadways.

- Install sandbags or other erosion control measures to prevent silt runoff to public roadways from adjacent project areas with a slope greater than 1% in accordance the project's Stormwater Pollution Prevention Plan (SWPPP), which conforms with the required elements of the General Permit No. CAS000002 issued by the State of California, State Water Resources Control Board.
- The area encompassing the San Joaquin Valley Air Basin (SJVAB) boundary is also classified as nonattainment for particulate matter less than or equal to 2.5 microns in diameter (PM^{2.5}). The SJVAPCD approach for achieving attainment of the PM_{2.5} standard is has two components. The first component is that the existing PM₁₀ reduction strategies will reduce the fugitive component of PM_{2.5} emissions within the SJVAPCD. The second component is to address the indirect formation of PM_{2.5}. As with ozone NO_x is a precursor of PM_{2.5} so the district reduction strategies for the reduction of NO_x throughout the basin will also reduce the formation of PM_{2.5}. In addition since the emissions estimate for PM₁₀ was compared to PM_{2.5} thresholds; if PM₁₀ emissions estimates are below the PM_{2.5} thresholds then PM_{2.5} must also be below the threshold. The proposed project shall be required to comply with the SJVAPCD's Regulation VIII (SJVAPCD 2009) control measures for construction emissions of PM₁₀. One of these control measures includes the use of water with all "land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities" for fugitive dust suppression. Compliance with SJVAPCD Regulation VIII will further reduce emissions.

Who Implements the Measure:	Applicant
When should the measure be implemented:	Prior to construction and/or grading
When should it be completed:	Prior to and during construction of each Phase
Who verifies compliance:	San Joaquin Valley Air Pollution Control District
Other Responsible Agencies:	Stanislaus County Public Works Department, Stanislaus County Planning Department

IV. BIOLOGICAL RESOURCES

No. 4 Mitigation Measure BIO-1: Avoid and Minimize Impacts to Western Burrowing Owl, Valley Elderberry Longhorn Beetle, and San Joaquin Kit Fox.

- To avoid and minimize impacts to western burrowing owl, a protocol-level preconstruction burrowing owl survey shall be conducted covering all areas subject to disturbance, and a 250 buffer area extending beyond areas subject to disturbance no fewer than 14 days and no more than 30 days prior to the start of construction according to methods approved by California Department of Fish and Game (DFG) (DFG 1995). Appropriate avoidance measures shall be determined in consultation with DFG in the event an active burrow is located in an area subject to disturbance, or within the 250 foot buffer area. Burrows occupied by burrowing owls shall not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist verifies through non-invasive methods that either: (1) the birds have not begun egg-laying and incubation; or (2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.
- To avoid and minimize impacts to San Joaquin kit fox, U.S. Fish and Wildlife Service (USFWS) approved preconstruction protocol-level surveys (USFWS 1999) shall be conducted no fewer than 14 days and no more than 30 days prior to the onset of any ground-disturbing activity. The survey area shall include all areas subject to disturbance, and a 250 buffer area extending beyond areas subject to disturbance. In the event that an active San Joaquin kit fox den is detected during preconstruction surveys, DFG and USFWS shall be contacted immediately and no project activity shall begin until appropriate avoidance measure have been implemented, and DFG and USFWS have provided written authorization that project construction may proceed. In addition, the proposed fencing along the southern boundary of the project site shall be designed to be wildlife friendly by raising the bottom of the fence six inches above the ground to allow San Joaquin Kit Fox to move into and out of the project site.
- To avoid and minimize impact to valley elderberry longhorn beetle, prior to construction, a survey shall be conducted for elderberry shrubs. The survey area shall include all areas subject to disturbance, and a 250 buffer area extending beyond areas subject to disturbance. In the event that any elderberry shrubs are found, the project applicant shall determine if the shrubs can be completely avoided. Complete avoidance would require no ground disturbance with 20 feet of the shrub. If complete avoidance is not feasible, the project applicant shall comply with USFWS compensation guidelines for valley elderberry longhorn beetle (USFWS 1999).

Who Implements the Measure:	Applicant
When should the measure be implemented:	Prior to construction and/or earthmoving/grading
When should it be completed:	Prior to construction and/or earthmoving/grading
Who verifies compliance:	California Department of Fish and Game
Other Responsible Agencies:	Stanislaus County Planning Department, Stanislaus County Public Works Department

No. 5 Mitigation Measure BIO-2: Avoid and Minimize Impacts to Waters of the United States.

- Prior to project approval, a qualified biologist shall survey the project site and map and describe all potential waters of the United States. This survey shall include all areas subject to disturbance, and a 250 buffer area extending beyond areas subject to disturbance. To the extent feasible, the project shall be designed and constructed to avoid all areas identified as potential waters of the United States. All potential waters of the United States in the project area shall be clearly marked for avoidance prior to construction with fencing or flagging. If complete avoidance of all potential waters of the United States is feasible, no additional mitigation to avoid and minimize this impact would be required.

- If complete avoidance is not feasible, a formal delineation of waters of the United States shall be conducted by a qualified biologist to determine the extent of jurisdictional wetlands on the project site. The findings shall be documented in a detailed report and submitted to the U.S. Army Corps of Engineers (USACE) for verification as part of the formal Section 404 wetland delineation process. If there would be unavoidable effects under USACE jurisdiction, the Section 404 process shall be completed and the acreage of affected jurisdictional habitat shall be replaced and/or rehabilitated. The acreage of jurisdictional wetland affected shall be replaced on a “no-net-loss” basis in accordance with USACE regulations. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by feasible methods agreeable to USACE.

Who Implements the Measure:	Applicant
When should the measure be implemented:	Prior to construction and/or earthmoving/grading
When should it be completed:	Prior to construction and/or earthmoving/grading
Who verifies compliance:	California Department of Fish and Game
Other Responsible Agencies:	Stanislaus County Planning Department, Stanislaus County Public Works Department

V. CULTURAL RESOURCES

No. 6 Mitigation Measure CR-1: Stop Work if Previously Unknown Archaeological Resources Are Uncovered during Project Construction, Assess the Significance of the Find, and Pursue Appropriate Management.

- If an inadvertent discovery of cultural materials (e.g., unusual amounts of shell, animal bone, bottle glass, ceramics, structure/building remains) is made during project-related construction activities, ground disturbances in the area of the find shall be halted and a qualified professional archaeologist shall be notified regarding the discovery. The archaeologist shall determine whether the resource is potentially significant as per the California Register of Historic Resources (CRHR) and develop appropriate treatment measures.

Who Implements the Measure:	Applicant
When should the measure be implemented:	Ongoing
When should it be completed:	Ongoing
Who verifies compliance:	Stanislaus County Planning Department
Other Responsible Agencies:	Central California Information Center

No. 7 Mitigation Measure CR-2: Stop Work if Human Remains Are Uncovered during Project Construction, Assess the Significance of the Find, and Pursue Appropriate Management.

- If human remains are uncovered during ground-disturbing activities, the contractor and/or the project applicant shall immediately halt potentially damaging excavation in the area of the find and notify the County Coroner and a professional archaeologist to determine the nature of the remains. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (Health and Safety Code Section 7050[c]). Following the coroner's findings, the property owner, contractor or project proponent, an archaeologist, and the NAHC-designated Most Likely Descendent (MLD) shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not

disturbed. The responsibilities for acting upon notification of a discovery of Native American human remains are identified in California Public Resources Code (PRC) 5097.9.

- Upon the discovery of Native American remains, the project applicant, in consultation with the County shall ensure that the immediate vicinity (according to generally accepted cultural or archaeological standards and practices) is not damaged or disturbed by further development activity until consultation with the MLD has taken place. The MLD shall have 48 hours to complete a site inspection and make recommendations after being granted access to the site. A range of possible treatments for the remains, including nondestructive removal and analysis, preservation in place, relinquishment of the remains and associated items to the descendents, or other culturally appropriate treatment may be discussed. California PRC 5097.9 suggests that the concerned parties may extend discussions beyond the initial 48 hours to allow for the discovery of additional remains. The following is a list of site protection measures that the project applicant shall employ:
 - record the site with the NAHC or the appropriate Information Center,
 - use an open space or conservation zoning designation or easement, and
 - record a document with Stanislaus County.
- The project applicant or their authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance if the NAHC is unable to identify a MLD or the MLD fails to make a recommendation within 48 hours after being granted access to the site. The landowner or their authorized representative may also re-inter the remains in a location not subject to further disturbance if they reject the recommendation of the MLD, and mediation by the NAHC fails to provide measures acceptable to the County.

Who Implements the Measure:	Applicant
When should the measure be implemented:	Ongoing
When should it be completed:	Ongoing
Who verifies compliance:	Stanislaus County Planning Department
Other Responsible Agencies:	Central California Information Center

VI. GEOLOGY AND SOILS

No. 8 Mitigation Measure GEO-1: Implement a Stormwater Pollution Prevention Plan (SWPPP) and associated Best Management Practices (BMPs) for disturbance of more than one acre.

Who Implements the Measure:	Applicant
When should the measure be implemented:	Prior to earthmoving/grading and/or construction
When should it be completed:	Prior to earthmoving/grading and/or construction
Who verifies compliance:	Stanislaus County Public Works Department
Other Responsible Agencies:	Regional Water Quality Control Board, Stanislaus County Planning Department

No. 9 Mitigation Measure GEO-2: Prepare and submit for County review and approval, and implement a grading and erosion control plan.

Who Implements the Measure:	Applicant
-----------------------------	-----------

When should the measure be implemented:	Prior to earthmoving/grading and/or construction
When should it be completed:	Prior to earthmoving/grading and/or construction
Who verifies compliance:	Stanislaus County Public Works Department
Other Responsible Agencies:	Stanislaus County Planning Department

VII. HAZARDS AND HAZARDOUS MATERIALS

No. 10 Mitigation Measure HM-1: Keep Hazardous Materials in an Identified Staging Area and Prepare and Implement an Accidental Spill Prevention and Response Plan during Construction.

- Before construction begins, the project applicant shall require the construction contractor to identify a staging area where hazardous materials will be stored during construction. The staging area shall not be located in an undisturbed area. The contractor shall also be required to prepare an accidental spill prevention and response plan, which shall be reviewed and approved by the project applicant and the County, that identifies measures to prevent accidental spills from leaving the site and methods for responding to and cleaning up spills before neighboring properties are exposed to hazardous materials.

Who Implements the Measure:	Applicant
When should the measure be implemented:	Prior to construction
When should it be completed:	Ongoing
Who verifies compliance:	Stanislaus County Department of Environmental Resources - Hazardous Waste Division
Other Responsible Agencies:	Stanislaus County Planning Department

No. 11 Mitigation Measure HM-2: Prepare and Implement a Phase II Environmental Site Assessment

Prior to commencing any ground-disturbing activities, the project applicant shall commission a Phase II Environmental Site Assessment which shall be prepared by an appropriately registered professional in the State of California. The Phase II will comply with the guidelines, standards, and regulations set forth by the California Department of Toxic Substances Control. The project applicant will submit the Phase II to the County prior to construction, and will comply with and implement all recommendations and requirements the County imposes in response to these assessments.

Who Implements the Measure:	Applicant
When should the measure be implemented:	Prior to construction
When should it be completed:	Prior to construction
Who verifies compliance:	Stanislaus County Department of Environmental Resources - Hazardous Waste Division
Other Responsible Agencies:	Stanislaus County Planning Department

No. 12 Mitigation Measure HM-3: Implement Avoidance and Minimization Measures for Impacts Related to the Abandoned Oil and Gas Exploration Well

The Phase II Environmental Site Assessment (Mitigation Measure HM-2) will also disclose the presence/absence of the abandoned oil and gas exploration well on the project site. The project applicant will test the gas and oil well for leakage prior to construction, record the location of the well on all project maps, and impose a 10-foot, no-build buffer zone around the well to ensure that impacts to workers are minimized.

Who Implements the Measure:	Applicant
When should the measure be implemented:	Prior to construction
When should it be completed:	Prior to construction
Who verifies compliance:	Stanislaus County Department of Environmental Resources - Hazardous Waste Division
Other Responsible Agencies:	Stanislaus County Planning Department

VIII. HYDROLOGY AND WATER QUALITY

No. 13 Mitigation Measure WQ-1: A Stormwater Pollution Prevention Plan (SWPPP) for the proposed project will be prepared by the project applicant, approved by the Stanislaus County Public Works Department prior to commencing with any ground-disturbing construction related activities, and implemented by the project applicant.

- Best Management Practices (BMPs) will be included in the SWPPP for runoff, erosion and water quality, and the BMPs will be put in place and maintained during the duration of ground-disturbing activities during the rainy season or when rain is forecast.

Who Implements the Measure:	Applicant
When should the measure be implemented:	Prior to earthmoving/grading and/or construction
When should it be completed:	Prior to earthmoving/grading and/or construction
Who verifies compliance:	Stanislaus County Public Works Department
Other Responsible Agencies:	Regional Water Quality Control Board, Stanislaus County Planning Department

No. 14 Mitigation Measure WQ-2: A grading and drainage plan will be prepared, submitted to the Stanislaus County Public Works Department for approval prior to issuance of any new building permits, and implemented by the project applicant. Drainage calculations will be prepared as per the Stanislaus County Standards and Specifications that are current at the time a permit is issued. The plan will contain enough information to verify that all runoff will be kept from going onto adjacent properties, into Little Salado Creek or its tributaries, and into the Stanislaus County road right-of-way. All grading and drainage work for the site's access roads will keep runoff within the historic (natural) drainage shed for that area. The grading and drainage plan will comply with the current Stanislaus County National Pollutant Discharge Elimination System (NPDES) General Permit and the Quality Control standards for New Development

Who Implements the Measure:	Applicant
When should the measure be implemented:	Prior to earthmoving/grading and/or construction
When should it be completed:	Prior to earthmoving/grading and/or construction
Who verifies compliance:	Stanislaus County Public Works Department
Other Responsible Agencies:	Stanislaus County Planning Department

No. 15 Mitigation Measure WQ-3: The applicant shall prepare a hydrologic analysis to calculate runoff from the project for both the before and after construction scenarios. This analysis shall include the cross culverts under I-5 and any structures upstream or downstream that could have a secondary impact within Caltrans right-of-way. The hydrologic analysis to calculate runoff and determine flows shall follow the Caltrans Highway Design Manual specifications.

Who Implements the Measure:	Applicant
When should the measure be implemented:	Prior to earthmoving/grading and/or construction
When should it be completed:	Prior to earthmoving/grading and/or construction
Who verifies compliance:	Caltrans, Stanislaus County Public Works Department
Other Responsible Agencies:	Stanislaus County Planning Department

I, the undersigned, do hereby certify that I understand and agree to be responsible for implementing the Mitigation Program for the above listed project.

Signature on File

January 18, 2012

Date

MITIGATED NEGATIVE DECLARATION

NAME OF PROJECT: Use Permit Application No. 2010-03 – Fink Road Solar Farm

LOCATION OF PROJECT: 4401 & 4881 Fink Road, west of Interstate 5, in the Newman/Crows Landing area. APN: 025-012-016, 025-012-017, 025-012-031, 025-012-033, 027-033-012.

PROJECT DEVELOPER: JKB Development
941 E. Monte Vista Avenue
Turlock, CA 95381

DESCRIPTION OF PROJECT: Request to establish a photovoltaic (PV) solar energy farm creating an aggregate peak power capacity of 80-100 megawatts (MW) of electricity on 800± acres of a 1,687± acre site. The construction will be in multiple phases with each phase being 20 MW consisting of approximately 1,400 trackers with 84,000 PV panels arranged in sub-arrays set on steel posts and aligned in rows utilizing single and dual axis trackers and all required devices. Additional site improvements include: all weather fire access roads; maintenance building; security fencing; construction staging area; and a transmission interconnect to an existing transmission line to PG&E's Solano substation.

Based upon the Initial Study, dated **January 18, 2012**, the Environmental Coordinator finds as follows:

1. This project does not have the potential to degrade the quality of the environment, nor to curtail the diversity of the environment.
2. This project will not have a detrimental effect upon either short-term or long-term environmental goals.
3. This project will not have impacts which are individually limited but cumulatively considerable.
4. This project will not have environmental impacts which will cause substantial adverse effects upon human beings, either directly or indirectly.

The aforementioned findings are contingent upon the following mitigation measures (if indicated) which shall be incorporated into this project:

1. Implement all feasible fugitive dust control requirements of the San Joaquin Valley Air Pollution Control District (SJVAPCD), Regulation VIII. The following measures shall be implemented to reduce particulate matter less than or equal to 10 microns in diameter (PM₁₀) exhaust emissions and further reduce the already less-than-significant impacts associated with reactive organic gas (ROG) and oxides of nitrogen (NO_x) emissions:
 - Provide commercial electric power to the project site in adequate capacity to avoid or minimize the use of portable electric generators and any other equipment.
 - Where feasible, substitute electric-powered equipment for diesel engine driven equipment, or implement the use of diesel particulate traps.
 - When not in use, avoid idling of on-site equipment.

- Where feasible, avoid operation of multiple pieces of heavy duty equipment.

Require contractors to use the best available emission reduction and economically feasible technology on an established percentage of the equipment fleet. It is anticipated that in the near future PM₁₀ control equipment will be available. The SJVAPCD shall be consulted with on this process. This requirement shall be included in construction bid specifications.

2. Comply with SJVAPCD's Regulation VIII-Fugitive Dust Prohibitions and implement the following applicable control measures, as required by law:

- The project applicant/operator shall submit a Dust Control Plan to the Air Pollution Control Officer (APCO) prior to the start of any construction activity on any site that will include 5 acres or more of disturbed surface area for non-residential development, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials. Construction activities shall not commence until the APCO has approved or conditionally approved the Dust Control Plan. An owner/operator shall provide written notification to the APCO within 10 days prior to the commencement of earthmoving activities via fax or mail. The requirement to submit a dust control plan shall apply to all construction related activities conducted at the project site.
- The project applicant/operator shall submit a construction notification form to the APCO at least 48 hours prior to the start of any construction activity on the project site that includes greater than one acre of disturbed surface area.

3. Implement SJVAPCD-recommended enhanced and additional control measures to further reduce fugitive PM₁₀ dust emissions from public roadways.

- Install sandbags or other erosion control measures to prevent silt runoff to public roadways from adjacent project areas with a slope greater than 1% in accordance the project's Stormwater Pollution Prevention Plan (SWPPP), which conforms with the required elements of the General Permit No. CAS000002 issued by the State of California, State Water Resources Control Board.
- The area encompassing the San Joaquin Valley Air Basin (SJVAB) boundary is also classified as nonattainment for particulate matter less than or equal to 2.5 microns in diameter (PM^{2.5}). The SJVAPCD approach for achieving attainment of the PM_{2.5} standard is has two components. The first component is that the existing PM₁₀ reduction strategies will reduce the fugitive component of PM_{2.5} emissions within the SJVAPCD. The second component is to address the indirect formation of PM_{2.5}. As with ozone NO_x is a precursor of PM_{2.5} so the district reduction strategies for the reduction of NO_x throughout the basin will also reduce the formation of PM_{2.5}. In addition since the emissions estimate for PM₁₀ was compared to PM_{2.5} thresholds; if PM₁₀ emissions estimates are below the PM_{2.5} thresholds then PM_{2.5} must also be below the threshold. The proposed project shall be required to comply with the SJVAPCD's Regulation VIII (SJVAPCD 2009) control measures for construction emissions of PM₁₀. One of these control measures includes the use of water with all "land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill, and demolition activities" for fugitive dust suppression. Compliance with SJVAPCD Regulation VIII will further reduce emissions.

4. Avoid and Minimize Impacts to Western Burrowing Owl, Valley Elderberry Longhorn Beetle, and San Joaquin Kit Fox.

- To avoid and minimize impacts to western burrowing owl, a protocol-level preconstruction burrowing owl survey shall be conducted covering all areas subject to disturbance, and a 250 buffer area extending beyond areas subject to disturbance no fewer than 14 days and no more than 30 days prior to the start of construction according to methods approved by California Department of Fish and Game (DFG) (DFG 1995). Appropriate avoidance measures shall be determined in consultation with DFG in the event an active burrow is located in an area subject to disturbance, or within the 250 foot buffer area. Burrows occupied by burrowing owls shall not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist verifies through non-invasive methods that either: (1) the birds have not begun egg-laying and incubation; or (2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.
 - To avoid and minimize impacts to San Joaquin kit fox, U.S. Fish and Wildlife Service (USFWS) approved preconstruction protocol-level surveys (USFWS 1999) shall be conducted no fewer than 14 days and no more than 30 days prior to the onset of any ground-disturbing activity. The survey area shall include all areas subject to disturbance, and a 250 buffer area extending beyond areas subject to disturbance. In the event that an active San Joaquin kit fox den is detected during preconstruction surveys, DFG and USFWS shall be contacted immediately and no project activity shall begin until appropriate avoidance measure have been implemented, and DFG and USFWS have provided written authorization that project construction may proceed. In addition, the proposed fencing along the southern boundary of the project site shall be designed to be wildlife friendly by raising the bottom of the fence six inches above the ground to allow San Joaquin Kit Fox to move into and out of the project site.
 - To avoid and minimize impact to valley elderberry longhorn beetle, prior to construction, a survey shall be conducted for elderberry shrubs. The survey area shall include all areas subject to disturbance, and a 250 buffer area extending beyond areas subject to disturbance. In the event that any elderberry shrubs are found, the project applicant shall determine if the shrubs can be completely avoided. Complete avoidance would require no ground disturbance with 20 feet of the shrub. If complete avoidance is not feasible, the project applicant shall comply with USFWS compensation guidelines for valley elderberry longhorn beetle (USFWS 1999).
5. Avoid and Minimize Impacts to Waters of the United States.
- Prior to project approval, a qualified biologist shall survey the project site and map and describe all potential waters of the United States. This survey shall include all areas subject to disturbance, and a 250 buffer area extending beyond areas subject to disturbance. To the extent feasible, the project shall be designed and constructed to avoid all areas identified as potential waters of the United States. All potential waters of the United States in the project area shall be clearly marked for avoidance prior to construction with fencing or flagging. If complete avoidance of all potential waters of the United States is feasible, no additional mitigation to avoid and minimize this impact would be required.
 - If complete avoidance is not feasible, a formal delineation of waters of the United States shall be conducted by a qualified biologist to determine the extent of jurisdictional wetlands on the project site. The findings shall be documented in a detailed report and submitted to the U.S. Army Corps of Engineers (USACE) for verification as part of the formal Section 404 wetland delineation process. If there would be unavoidable effects under USACE jurisdiction, the Section 404 process shall be completed and the acreage of affected jurisdictional habitat shall be replaced and/or rehabilitated. The acreage of jurisdictional wetland affected shall be replaced on a “no-net-loss” basis in accordance with USACE

regulations. Habitat restoration, rehabilitation, and/or replacement shall be at a location and by feasible methods agreeable to USACE.

6. Stop Work if Previously Unknown Archaeological Resources Are Uncovered during Project Construction, Assess the Significance of the Find, and Pursue Appropriate Management.
 - If an inadvertent discovery of cultural materials (e.g., unusual amounts of shell, animal bone, bottle glass, ceramics, structure/building remains) is made during project-related construction activities, ground disturbances in the area of the find shall be halted and a qualified professional archaeologist shall be notified regarding the discovery. The archaeologist shall determine whether the resource is potentially significant as per the California Register of Historic Resources (CRHR) and develop appropriate treatment measures.
7. Stop Work if Human Remains Are Uncovered during Project Construction, Assess the Significance of the Find, and Pursue Appropriate Management.
 - If human remains are uncovered during ground-disturbing activities, the contractor and/or the project applicant shall immediately halt potentially damaging excavation in the area of the find and notify the County Coroner and a professional archaeologist to determine the nature of the remains. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (Health and Safety Code Section 7050[c]). Following the coroner's findings, the property owner, contractor or project proponent, an archaeologist, and the NAHC-designated Most Likely Descendent (MLD) shall determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed. The responsibilities for acting upon notification of a discovery of Native American human remains are identified in California Public Resources Code (PRC) 5097.9.
 - Upon the discovery of Native American remains, the project applicant, in consultation with the County shall ensure that the immediate vicinity (according to generally accepted cultural or archaeological standards and practices) is not damaged or disturbed by further development activity until consultation with the MLD has taken place. The MLD shall have 48 hours to complete a site inspection and make recommendations after being granted access to the site. A range of possible treatments for the remains, including nondestructive removal and analysis, preservation in place, relinquishment of the remains and associated items to the descendents, or other culturally appropriate treatment may be discussed. California PRC 5097.9 suggests that the concerned parties may extend discussions beyond the initial 48 hours to allow for the discovery of additional remains. The following is a list of site protection measures that the project applicant shall employ:
 - record the site with the NAHC or the appropriate Information Center,
 - use an open space or conservation zoning designation or easement, and
 - record a document with Stanislaus County.
 - The project applicant or their authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance if the NAHC is unable to identify a MLD or the MLD fails to make a recommendation within 48 hours after being granted access

to the site. The landowner or their authorized representative may also re-enter the remains in a location not subject to further disturbance if they reject the recommendation of the MLD, and mediation by the NAHC fails to provide measures acceptable to the County.

8. Implement a Stormwater Pollution Prevention Plan (SWPPP) and associated Best Management Practices (BMPs) for disturbance of more than one acre.
9. Prepare and submit for County review and approval, and implement a grading and erosion control plan.
10. Keep Hazardous Materials in an Identified Staging Area and Prepare and Implement an Accidental Spill Prevention and Response Plan during Construction.
 - Before construction begins, the project applicant shall require the construction contractor to identify a staging area where hazardous materials will be stored during construction. The staging area shall not be located in an undisturbed area. The contractor shall also be required to prepare an accidental spill prevention and response plan, which shall be reviewed and approved by the project applicant and the County, that identifies measures to prevent accidental spills from leaving the site and methods for responding to and cleaning up spills before neighboring properties are exposed to hazardous materials.
11. Prepare and Implement a Phase II Environmental Site Assessment.
 - Prior to commencing any ground-disturbing activities, the project applicant shall commission a Phase II Environmental Site Assessment which shall be prepared by an appropriately registered professional in the State of California. The Phase II will comply with the guidelines, standards, and regulations set forth by the California Department of Toxic Substances Control. The project applicant will submit the Phase II to the County prior to construction, and will comply with and implement all recommendations and requirements the County imposes in response to these assessments.
12. Implement Avoidance and Minimization Measures for Impacts Related to the Abandoned Oil and Gas Exploration Well.
 - The Phase II Environmental Site Assessment (Mitigation Measure HM-2) will also disclose the presence/absence of the abandoned oil and gas exploration well on the project site. The project applicant will test the gas and oil well for leakage prior to construction, record the location of the well on all project maps, and impose a 10-foot, no-build buffer zone around the well to ensure that impacts to workers are minimized.
13. A Stormwater Pollution Prevention Plan (SWPPP) for the proposed project will be prepared by the project applicant, approved by the Stanislaus County Public Works Department prior to commencing with any ground-disturbing construction related activities, and implemented by the project applicant.
 - Best Management Practices (BMPs) will be included in the SWPPP for runoff, erosion and water quality, and the BMPs will be put in place and maintained during the duration of ground-disturbing activities during the rainy season or when rain is forecast.
14. A grading and drainage plan will be prepared, submitted to the Stanislaus County Public Works Department for approval prior to issuance of any new building permits, and implemented by the project applicant. Drainage calculations will be prepared as per the Stanislaus County Standards and Specifications that are current at the time a permit is issued. The plan will contain enough information to verify that all runoff will be kept from going onto adjacent properties, into Little Salado Creek or its tributaries, and into the Stanislaus County road right-of-way. All grading and drainage work for the site's access

roads will keep runoff within the historic (natural) drainage shed for that area. The grading and drainage plan will comply with the current Stanislaus County National Pollutant Discharge Elimination System (NPDES) General Permit and the Quality Control standards for New Development

15. The applicant shall prepare a hydrologic analysis to calculate runoff from the project for both the before and after construction scenarios. This analysis shall include the cross culverts under I-5 and any structures upstream or downstream that could have a secondary impact within Caltrans right-of-way. The hydrologic analysis to calculate runoff and determine flows shall follow the Caltrans Highway Design Manual specifications.

The Initial Study and other environmental documents are available for public review at the Department of Planning and Community Development, 1010 10th Street, Suite 3400, Modesto, California.

Initial Study prepared by: Francine Dunn, AECOM

Submit comments to: Stanislaus County
Planning and Community Development Department
1010 10th Street, Suite 3400
Modesto, California 95354

(I:\Planning Project Forms\Mitigated Negative Declaration.wpd)

APPENDIX "A"
STANISLAUS COUNTY
BUFFER AND SETBACK GUIDELINES

Stanislaus County Buffer and Setback Guidelines

Purpose and Intent:

The purpose of these guidelines is to protect the long-term health of local agriculture by minimizing conflicts resulting from normal agricultural practices as a consequence of new or expanding uses approved in or adjacent to the A-2 (General Agriculture) zoning district.

The intent of these guidelines is to establish standards for the development and maintenance of buffers and setbacks designed to physically avoid conflicts between agricultural and non-agricultural uses.

Applicability:

These guidelines shall apply to all new or expanding uses approved by discretionary permit¹ in the A-2 zoning district or on a parcel adjoining the A-2 zoning district. Uses located within a Local Agency Formation Commission (LAFCO) adopted Sphere of Influence (SOI) for an incorporated city shall be subject to these guidelines if the project site is located within 300 feet of any production agriculture operation, as defined by the Stanislaus County General Plan Agricultural Element, or the outer boundary of the SOI at the time of approval.

Low people intensive Tier One and Tier Two Uses (such as nut hulling, shelling, dehydrating, grain warehousing, and agricultural processing facilities) which do not serve the general public shall not be subject to compliance with these guidelines; however, conditions of approval consistent with these guidelines may be required as part of the project approval. The decision making body shall have the ultimate authority to determine if a use is “low people intensive”.

Buffer and setback requirements established by these guidelines shall be located on the parcel for which a discretionary permit is sought and shall protect the maximum amount of adjoining farmable land.

Buffer Design Standards for New Uses:

- 1) All projects shall incorporate a minimum 150 foot wide buffer setback. Projects which propose people intensive outdoor activities, such as athletic fields, shall incorporate a minimum 300 foot wide buffer setback.
 - a. Permitted uses within a buffer area shall include:
 - i. Public roadways, utilities, drainage facilities, rivers and adjacent riparian areas, landscaping, parking lots, and similar low people intensive uses. Walking and bike trails shall be allowed within buffers setback areas provided they are designed without rest areas.

¹ For purposes of these guidelines discretionary permit shall mean any general plan amendment, community plan amendment, rezone, tentative map, parcel map, use permit (excluding single-family dwellings in the A-2 zoning district), or variance processed by the County Planning & Community Development Department.

- ii. Permitted non-agricultural uses adjoining or surrounding a project site (including but not limited to legal non-conforming uses and homesites) which are of a permanent nature and not likely to be returned to agriculture.
 - b. Landscaping within a buffer setback area shall be designed to exclude turf areas which could induce activities and add to overall maintenance costs and water usage.
- 2) A six foot high fence of uniform construction shall be installed along the perimeter of the developed area of the use to prevent trespassing onto adjacent agricultural lands. Fencing shall not be required for uses which do not directly establish the potential for increased trespassing onto adjacent agricultural lands.

Buffer and Setback Design Standards for Expanding Uses:

- Where existing development on a project site will allow, accommodation of a buffer as required for new uses shall be provided.
- Where existing development on a project site will not allow a buffer as required for new uses, the expansion may be permitted only if it does not intensify on-site activities or an alternative buffer and setback design standard is approved for the expansion.

Buffer and Setback Maintenance

- Projects subject to these guidelines shall be conditioned to require the property owner(s) be responsible for all aspects of on-going maintenance of buffers and setback areas. The property owner(s) shall be responsible for maintaining landscape plants in a healthy and attractive condition.
- A landowners association or other appropriate entity shall be required to maintain buffers to control litter, fire hazards, pests, and other maintenance problems when a project consists of multiple parcels which may be held, or have the potential to be held, under separate ownership.
- The property owner, landowners association, or responsible entity shall be responsible for maintaining landscape plants in a healthy and attractive condition. Dead or dying plants shall be replaced with materials of equal size and similar variety within 30-days of weather permitting.
- When buffers are required as part of a specific plan, the County may require dedication of buffer areas and formation of service district to insure long-term up keep and maintenance of the buffer.

Agricultural Transition:

- The Board of Supervisors may authorize the abandonment and reuse of buffer areas if agricultural uses on all adjacent parcels within a 150-foot radius of the project site have permanently ceased.

Alternative Buffer and Setback Design Standards:

- Any alternative buffer and setback design standards proposed by a project applicant shall be referred to the Stanislaus County Agricultural Commissioner as part of the planning review process prior to consideration by the Stanislaus County Planning Commission. The Planning Commission shall consider the Agricultural Commissioner's referral response in making a determination on the proposed alternative. In no case shall the required standards be reduced, unless the proposed alternative is found to provide equal or greater protection to surrounding agricultural uses.

ADAMS BROADWELL JOSEPH & CARDOZO

A PROFESSIONAL CORPORATION

ATTORNEYS AT LAW

520 CAPITOL MALL, SUITE 350
SACRAMENTO, CA 95814-4721

TEL: (916) 444-6201
FAX: (916) 444-6209

rpurchia@adamsbroadwell.com

SO. SAN FRANCISCO OFFICE

601 GATEWAY BLVD., SUITE 1000
SO. SAN FRANCISCO, CA 94080

TEL: (650) 589-1660
FAX: (650) 589-5062

DANIEL L. CARDOZO
THOMAS A. ENSLOW
TANYA A. GULESSERIAN
JASON W. HOLDER
MARC D. JOSEPH
ELIZABETH KLEBANER
RACHAEL E. KOSS
LOULENA A. MILES
ROBYN C. PURCHIA

OF COUNSEL
THOMAS R. ADAMS
ANN BROADWELL

January 3, 2010

VIA EMAIL AND OVERNIGHT MAIL

Rachel Wyse
Assistant Planner
Stanislaus County Planning
and Community Development
1010 10th Street, Suite 3400
Modesto, CA 95354
Email: wyser@stancounty.com

Re: Comments on the Initial Study/Mitigated Negative Declaration for the Fink Road Solar Farm

Dear Ms. Wyse:

We are writing on behalf of the California Unions for Reliable Energy (“CURE”) to comment on the Initial Study/Mitigated Negative Declaration (“MND”) prepared by the County of Stanislaus (“County”) for JKB Energy’s (“Applicant”) Fink Road Solar Farm (“Project”). The Project requires a Conditional Use Permit to develop an 80- to 100-megawatt (“MW”) photovoltaic (“PV”) solar energy farm on approximately 800 acres of a 1,687-acre site.

CURE has an interest in enforcing environmental laws that encourage sustainable development and ensure a safe working environment for its members. Environmentally detrimental projects can jeopardize future jobs by making it more difficult and more expensive for business and industry to expand in the region, and by making it less desirable for businesses to locate and people to live here. Indeed, continued degradation can, and has, caused construction moratoriums and other restrictions on growth that, in turn, reduce future employment opportunities. In addition, CURE members who live and work in Stanislaus County may work on the Project itself. They will, therefore, be first in line to be exposed to any contaminated soils that have not been adequately tested, identified and remediated and could also be directly exposed to any other unmitigated noise and safety hazards that may exist onsite.

2520-005d

Based on our review of the MND, the proposed Project does not comply with California law. The County has not prepared a Water Supply Assessment (“WSA”) as required by the California Water Code.¹ In addition, the County has not complied with the California Environmental Quality Act (“CEQA”).² Specifically, the County has not identified, analyzed and mitigated all of the Project’s impacts to the environment. Because a “fair argument” currently exists that the Project may impact the environment, the County is required to prepare an Environmental Impact Report (“EIR”). Finally, the Applicant may need to get permits from additional State and federal agencies. Federal agencies may require additional federal environmental review under the National Environmental Policy Act (“NEPA”). The County must prepare a WSA and an EIR, as well as comply with all federal and State rules and regulations, before the Planning Commission may legally approve the Project.

Our review of the MND was conducted without the aid of the MND’s supporting documents. On December 16, 2010, we submitted a request pursuant to the Public Records Act and CEQA for all documents referenced and relied upon in the MND. Despite CEQA’s clear mandate that all documents referenced in an MND be available during the entire comment period, the County has not yet made these documents available for our review. Instead, the County responded that County staff must first collect the MND’s supporting documents and that the documents will not be available until the end of January – well after the MND’s public comment period deadline and scheduled Planning Commission Hearing on January 20.³

Based on the County’s failure to make the MND’s reference documents available in accordance with CEQA requirements, we submitted a request for extension of the public comment deadline on December 20, and again on December 22. Despite numerous follow-up phone calls and emails, the County has not yet responded to either request. For these reasons, we hereby reserve the right

¹ Wat. Code, §§ 10910-10915.

² Pub. Resources Code, §§ 21000, et seq.

³ Thomas E. Boze, Deputy County Counsel, letter to Janet Laurain, Paralegal, Adams Broadwell Joseph & Cardozo, Dec. 17, 2010, p. 2. (Attachment C).
2520-005d

to submit additional comments on the proposed Project after receipt of the supporting documents and after close of the noticed review period.

We reviewed the MND with the assistance of technical experts, Scott Cashen, M.S. and Matthew Hagemann, P.G. The comments and qualifications of these experts are attached to this letter and incorporated herein as Attachments A and B respectively.

I. THE COUNTY HAS NOT COMPLIED WITH REQUIREMENTS SET FORTH IN THE CALIFORNIA WATER CODE

Pursuant to section 10912 of the California Water Code, a WSA is required for the Project and must be included in the CEQA document that is circulated for public review and comment. If the County approves the Project without requiring a WSA, the County's decision will not only be contrary to law, but it will also preclude informed decision-making regarding the Project's impacts.

A. The Fink Road Solar Farm meets the definition of a "project" under the Water Code

The Water Code requires a WSA for any project that meets the definition in section 10912, subdivision (a). The term "project" is defined in section 10912 as follows:

- (a) "Project" means *any* of the following:
 - (1) A proposed residential development of more than 500 dwelling units.
 - (2) A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
 - (3) A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.
 - (4) A proposed hotel or motel, or both, having more than 500 rooms.
 - (5) *A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons,*

occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.

- (6) A mixed-use project that includes one or more of the projects specified in this subdivision.
- (7) A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.⁴

Under the plain language of the statute, a WSA is required for the Project because it is an industrial plant occupying more than 40 acres of land. This conclusion is further supported by the court's interpretation of the plain language of the Code in *Center for Biological Diversity v. County of San Bernardino*. In that case the court stated that:

Under the plain language of section 10912, subdivision (a)(5), the proposed Hawes Project qualifies as a "project" because it is a "processing plant" conducted on more than 40 acres of land. We reject Nursery Products' assertion that subdivision (a)(5) of section 10912 applies only to "large scale buildings located on large square footage or plots of land." The Water Code does not define the term "processing plant," but the term "plant" is commonly defined as including the *land*, as well as buildings, machinery and fixtures, used in carrying out a trade or industrial business. "When attempting to ascertain the ordinary, usual meaning of a word, courts appropriately refer to the dictionary definition of that word." Had the Legislature intended the statute to apply only to processing operations conducted in large buildings, we presume it would not have included acreage as a separate factor in addition to square footage of a physical structure. An open-air composting facility is a "project" within the meaning of subdivision (a)(5) of section 10912 if it meets the acreage threshold, even if the only structures on site are small ones.⁵

⁴ Wat. Code, § 10912, subd. (a) (emphasis added).

⁵ *Center for Biological Diversity v. County of San Bernardino* (2010) 185 Cal.App.4th 866, 887-88 (citations omitted).
2520-005d

Like the composting facility at issue in *Center for Biological Diversity*, the solar PV electrical generating power plant at issue in this case clearly qualifies as a “project” under section 10912 because it is an “industrial plant” that will occupy more than 40 acres of land. A WSA is, therefore, required.

CEQA lead agencies considering similar PV solar projects have recognized the need to prepare a WSA. For example, the County of San Bernardino prepared WSAs for a 20-MW PV solar facility proposed by Boulevard Associates, LLC on 190 acres⁶ and a 40-MW PV solar facility proposed by LightSource Renewables, LLC on 350 acres.⁷ A WSA was also prepared for a 399-MW PV solar facility proposed by Solargen Energy, Inc. in San Benito County⁸ and a 550-MW PV solar facility proposed by First Solar, Inc. in San Luis Obispo County.⁹ Because the proposed Project is also an industrial plant on more than 40 acres of land, the County must prepare a WSA.

B. The County has not supplied sufficient evidence to ensure that water supplies are sufficient to meet water demands

The purpose of a WSA is to ensure that water supplies are sufficient to meet water demands. To make this determination, either the County or the designated public water system must identify the Project’s water demand and water supply before concluding that water supplies are sufficient to meet water demands.¹⁰ The

⁶ See generally Integrated Resource Management, LLC, Water Supply Assessment for Boulevard Associates, LLC Kramer Junction Solar Energy Center (Aug. 17, 2010) (excerpts attached as Attachment D) (hereafter Boulevard Associates WSA).

⁷ See generally Integrated Resource Management, LLC, Water Supply Assessment for LightSource Renewables, LLC Kramer Solar Farm (Sept. 2010) (see excerpts attached as Attachment E) (hereafter LightSource Renewables WSA).

⁸ See generally Geologica Inc., Water Supply Assessment Solargen Panoche Valley Solar Farm (Sept. 23, 2010).

⁹ See generally, Aspen Environmental Group, SB 610 Water Supply Assessment Proposed Topaz Solar Farm Project (Oct. 2010).

¹⁰ Either the County or an identified public water system has responsibility for preparing the WSA. (See Wat. Code, § 10910, subd. (b).) A public water system is defined under the Code as “a system for the provision of piped water to the public for human consumption that has 3,000 or more service connections.” (Wat. Code, § 10912, subd. (c).) If the County can identify a public water system, the public water system has the responsibility to prepare the WSA. (See Wat. Code, § 10910, subd. (c).) 2520-005d

County has neither identified the Project's total water demand or a water supplier. The County must, therefore, require that a WSA is prepared that includes all of the requisite information to ensure that water supplies are sufficient to meet water demands.

1. The WSA must identify the Project's total water demand

Either the County or a public water system must identify the Project's total water demand. While the MND identifies the water demand to irrigate approximately 800 acres that will remain in agricultural use,¹¹ the MND does not contain any evidence, discussion, or information to support its determination that the Project would only require, at most, 300 gallons of water quarterly to clean the solar panels.¹² The MND also does not identify the Project's water demand for construction activities and fire suppression. Either the County or the identified public water system must provide additional information to support its conclusion that the Project would require 519.404 acre feet per year ("AFY").¹³ In addition, the WSA must identify the Project's water demand for construction and fire suppression and include that demand in the total water requirement estimate for the Project.

The MND's determination that the Project would only require 0.004 AFY for solar panel cleaning is likely underestimated. PV solar panels require periodic rinsing to maintain their efficiency.¹⁴ The amount of water needed for cleaning depends on a variety of factors, such as dust fall, dust compaction, water waste, etc. Stephanie Tavares, an environmental reporter for the *Las Vegas Sun*, compared the

If the County cannot identify a public water system, the County maintains responsibility to prepare the WSA and must consult with any entity serving domestic water supplies whose service area includes the project site, the local agency formation commission ("LAFCO") and any public water system adjacent to the project site. (Wat. Code, § 10910, subd. (b).)

¹¹ Stanislaus County Planning and Community Development, Initial Study/Proposed Mitigated Negative Declaration Fink Road Solar Farm Project (Nov. 18, 2010), p. 3-71 (hereafter MND).

¹² *Ibid.* According to the MND, that means that 1,200 gallons of water would be used per year. (300 x 4 = 1,200.) 1,200 gallons per year = 0.004 AFY.

¹³ The MND identifies that irrigation would require 463,697 gallons per day. (MND, p. 3-71.) This equals 169,249,405 gallons per year. (463,697 x 365.) 169,249,405 gallons per year = 519.40 AFY. 519.40 AFY (irrigation) + 0.004 AFY (cleaning) = 519.404.

¹⁴ Oliver Seely, *Some Observations on Photovoltaic Cell Panels* <<http://www.csudh.edu/oliver/smt310-handouts/solarpan/solarpan.htm>> [as of Jan. 3, 2011] (Attachment F).
2520-005d

proposed operational water use for various PV solar projects.¹⁵ She determined that 16,689 gallons of water per MW was required yearly to clean PV solar plants. Based on this assumption, the proposed Project would need approximately 4.10 to 5.12 AFY.¹⁶ In addition, applicants for other smaller projects have estimated a higher water demand for project maintenance than what was estimated in the Project's MND. For example, the 20-MW PV solar project proposed by Boulevard Associates in San Bernardino County estimated that the annual water demand for project maintenance would be 1.72 AFY.¹⁷ The 40-MW PV solar project proposed by LightSource Renewables in San Bernardino County estimated that the project would need 1.95 AFY to clean the solar panels.¹⁸

As factual data and evidence from other PV solar projects indicate, the County likely underestimated the Project's proposed water use for solar panel cleaning. The County must either support its initial determinations with factual evidence, or recalculate the Project's water use. Given the history of water shortages on the Project site, an accurate description of the Project's water demand is essential for informed decision-making.

The MND also does not state how much water would be used in conjunction with construction activities for the Project. During construction the Applicant would be required to use water with all land clearing, grubbing, scraping, excavation, land leveling, grading, cut and fill and demolition activities.¹⁹ The amount of water necessary to reduce fugitive dust emissions can be substantial in a County with drought problems. For example, the 20-MW PV solar facility proposed by Boulevard Associates will use 29.5 AFY during construction.²⁰ The 40-MW PV solar facility proposed by LightSource Renewables will use 10.8 AFY.²¹ The County has provided absolutely no information about the proposed Project's water demand for construction activities. This information must be provided in an EIR prepared for the Project.

¹⁵ Stephanie Tavares, *Dirty detail: Solar Panels Need Water*, Las Vegas Sun (Sept. 18, 2009) (Attachment G).

¹⁶ (80 MW x 16,689 gallons) = 4.10 AFY; (100 MW x 16,689 gallons) = 5.12 AFY.

¹⁷ Boulevard Associates WSA, p. 18.

¹⁸ LightSource Renewables WSA, p. 6.

¹⁹ MND, p. 3-14.

²⁰ Boulevard Associates WSA, p. 18.

²¹ LightSource Renewables WSA, p. 5.

Finally, the MND does not identify the Project's water demand for fire suppression. The Conditions of Approval for the neighboring Scatec Westside Solar Ranch state that "[n]o development shall occur without an approved fire department access and water for fire protection."²² Water maintained on a project site for fire protection can be substantial. For example, the applicants for the Panoche Valley Solar Farm in San Benito proposed to maintain up to two 4,000 gallon water tanks for the fire-fighting system.²³ The County must identify the amount of water the Project will need for fire protection so that the Project's total water demand can be assessed.

The County must revise the MND and require preparation of a WSA to support its findings for operational water use, or acknowledge that the Project will likely require much more than 0.004 AFY to clean the solar panels. The County must also specify the water demand for construction activities and fire suppression. An accurate identification of the Project's water demand is necessary to compare the Project's water use and the goals set forth in any relevant urban water management plan, should the identified water source be subject to the jurisdiction of such a plan. Most importantly, however, the County must identify the Project's water demand to ensure that water supply will be sufficient to meet water demand in normal, single-dry and multiple-dry years for the next 20 years. This is especially important given the history of water shortages at the Project site.²⁴

2. The WSA must identify a water supplier

The WSA must identify a reliable water supplier for the Project's construction, maintenance, fire suppression and irrigation activities. There is no evidence that the County has secured water through the Del Puerto Water District for irrigation water supplies. In addition, the County has not identified a "maintenance contractor" in Modesto that has the capacity and resources to supply the Project with maintenance water. No water supplier has been identified or secured for construction and fire suppression activities. Without this information, there is no evidence that water supplies are sufficient to meet water demands.

²² Stanislaus County Planning Com., Staff Report, Nov. 4, 2010, Exhibit B, p. 19 (Attachment H).

²³ San Benito County, Final Environmental Impact Report Panoche Valley Solar Farm, Sept. 2010, B-9.

²⁴ MND, p. 3-9.
2520-005d

A designated water supplier is not only necessary to ensure that water supplies are sufficient to meet water demands, but is necessary to determine which entity has the responsibility for preparing the WSA. The entity that provides water services for Project maintenance and construction may qualify as a public water system under the California Water Code. If this is the case, the public water system would prepare the WSA and submit it to the County for review. It is unlikely that the Del Puerto Water District will qualify as a public water system because its duties only include the administration and distribution of irrigation water, and not the provision of piped water for human consumption.

Nevertheless, depending on what water supplier is identified, the County or the public water system must prepare a WSA that analyzes whether a proposed water supply is sufficient to meet the Project's water demand before the Planning Commission may legally approve the Project.

C. The WSA must be included in an EIR prepared for the Project

The County's failure to require a WSA violates both the Water Code and CEQA. The Water Code requires a County to include the WSA in any environmental document prepared for a project.²⁵ In addition, CEQA requires compliance with the Water Code provisions.²⁶ The MND did not contain a WSA. Any information contained in the MND that water supply is sufficient to meet water demand is purely speculative. The County must, therefore, prepare a WSA that is included in an EIR prepared for the Project.

II. THE COUNTY HAS NOT COMPLIED WITH REQUIREMENTS SET FORTH IN THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

CEQA has two basic purposes, neither of which the MND satisfies. First, CEQA is designed to inform decision-makers and the public about the potential, significant environmental effects of a project.²⁷ CEQA requires that an agency

²⁵ Wat. Code, § 10911, subd. (b).

²⁶ Pub. Resources Code, § 21151.9.

²⁷ Cal. Code Regs., tit. 14, § 15002, subd. (a)(1) (hereafter CEQA Guidelines).

2520-005d

analyze the potential environmental impacts in an EIR.²⁸ “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.”²⁹ 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.”³⁰

Second, CEQA directs public agencies to avoid or reduce environmental damage when possible by requiring alternatives or mitigation measures.³¹ The EIR serves to provide public agencies and the public in general with information about the effect that a proposed project is likely to have on the environment and to “[i]dentify ways that environmental damage can be avoided or significantly reduced.”³² If the project has a significant effect on the environment, the agency may approve the project only upon a finding that it has “[e]liminated 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” specified in CEQA section 21081.³³

CEQA’s purpose and goals must be met through the preparation of an EIR except in certain *limited circumstances*.³⁴ For example, a negative declaration may be prepared instead of an EIR when, after preparing an initial study, a lead agency determines that a project “would not have a significant effect on the environment.”³⁵ However, such a determination may be made only if “[t]here is *no* substantial evidence in light of the whole record before the lead agency” that such an impact *may occur*.³⁶

²⁸ See Pub. Resources Code, § 21000.

²⁹ *Citizens of Goleta Valley v. Bd. of Supervisors* (1990) 52 Cal.3d 553, 564 (citations omitted).

³⁰ *Cherry Valley Pass Acres and Neighbors v. City of Beaumont* (2010) 190 Cal.App.4th 316; *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.

³¹ CEQA Guidelines § 15002, subd. (a)(2)-(3); see also *Berkeley Keep Jets Over the Bay Com. v. Bd. of Port Comrs.* (2001) 91 Cal.App.4th 1344, 1354 (hereafter *Berkeley Keep Jets*).

³² CEQA Guidelines § 15002, subd. (a)(2).

³³ *Id.*; CEQA Guidelines § 15092, subd. (b)(2)(A)-(B).

³⁴ See, e.g., Pub. Resources Code, § 21100 (emphasis added).

³⁵ *Id.*; Pub. Resources Code, § 21080, subd. (c).

³⁶ Pub. Resources Code, § 21080, subd. (c)(1) (emphasis added).

CEQA's strong presumption favoring preparation of an EIR is reflected in its standard of review. Under the "fair argument" standard, a negative declaration is improper, and an EIR is required, whenever substantial evidence in the record supports a "fair argument" that significant impacts may occur, even if other substantial evidence supports the opposite conclusion.³⁷ The "fair argument" standard creates a "low threshold" favoring environmental review through an EIR, rather than through issuance of a negative declaration or notices of exemption from CEQA.³⁸ Substantial evidence can be provided by technical experts or members of the public.³⁹

In this case, the MND fails to satisfy the basic purposes of CEQA. Specifically, the County failed to: (1) adequately describe the Project; (2) adequately describe the existing baseline; (3) provide substantial evidence to conclude that impacts will be mitigated to a less-than-significant level; and (4) incorporate feasible mitigation measures into the environmental document.

The failure of the County to adequately describe the Project and the environmental baseline is a failure to inform decision-makers and the public of the Project's potentially significant environmental effects. The public cannot evaluate and comment on the Project and its potentially significant impacts without this basic information. In addition, because the MND lacks basic information regarding the Project and its baseline, there is no evidence to support the MND's conclusion that the Project will have a less-than-significant impact on the environment. Because the County has left "deficiencies in the record" to support its finding of no significant impacts, there is a wider range of inferences to support substantial evidence that the Project may result in a potentially significant impact to the environment, requiring the preparation of an EIR.⁴⁰

³⁷ See Pub. Resources Code, § 21082.2; see also *Laurel Heights Improvement Assn. v. Regents of the Univ. of California* (1993) 6 Cal.4th 1112, 1123 (hereafter *Laurel Heights*); *Stanislaus Audubon v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 150-51; *Quail Botanical Gardens Foundation, Inc. v. County of Encinitas* (1994) 29 Cal.App.4th 1597, 1601 (hereafter *Quail Botanical Gardens*).

³⁸ *Citizens Action to Serve All Students v. Thornley* (1990) 222 Cal.App.3d 748, 754.

³⁹ CEQA Guidelines § 15063, subd. (a)(3); *Gabric v. County of Rancho Palos Verdes* (1977) 73 Cal.App.3d 183, 199.

⁴⁰ *Leonoff v. Monterey County Bd. of Supervisors* (1990) 222 Cal.App.3d 1337, 1348-49.
2520-005d

III. THE MND IS INTERNALLY INCONSISTENT AND FAILS TO ADEQUATELY DESCRIBE THE PROJECT

The MND fails to describe the Project adequately and hence, does not comply with CEQA. Under CEQA, a negative declaration is legally defective if it fails to describe the proposed project accurately.⁴¹ CEQA provides that before a negative declaration can be issued, the initial study must “provide documentation of the factual basis for the finding in a Negative Declaration that a project will not have a significant effect on the environment.”⁴² The 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].”⁴³

The CEQA Guidelines define “project” broadly to encompass the “whole of the action.”⁴⁴ As the Guidelines state, “the term ‘project’ has been interpreted to mean far more than the ordinary dictionary definition of the term.”⁴⁵ Any activity “which may cause either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment” constitutes a “project” or the “whole of the action.”⁴⁶ This includes, but is not limited to, “later phases of the project, and any secondary, support, or off-site features necessary for its implementation.”⁴⁷

If later phases or future activities are reasonably foreseeable consequences of a proposed project, an agency must include a description of the actions in the environmental review document and analyze their impacts.⁴⁸ CEQA mandates that “environmental considerations do not be submerged by chopping a large project into many little ones – each with a minimal potential impact on the environment – which cumulatively may have disastrous consequences.”⁴⁹ If an agency fails to

⁴¹CEQA Guidelines § 15071, subd. (a); *Christward Ministry v. Superior Court* (1986) 184 Cal.App.3d 180, 197.

⁴² CEQA Guidelines § 15063, subd. (c)(5).

⁴³ *County of Inyo v. County of Los Angeles* (1977) 71 Cal.App.3d 185, 193.

⁴⁴ Pub. Resources Code, §§ 21065, 21080, subd. (a); CEQA Guidelines, §§ 15002, subd. (d), 15003, subd. (h), 15165, 15378, Appendix G.

⁴⁵ CEQA Guidelines, § 15002, subd. (d).

⁴⁶ Pub. Resources Code, § 21065.

⁴⁷ CEQA Guidelines, Appendix G.

⁴⁸ *Citizens Assn. for Sensible Development v. County of Inyo* (1985) 172 Cal.App.3d 151, 168.

⁴⁹ *Bozung v. Local Agency Formation Com.* (1975) 13 Cal.3d 263, 283-84.

2520-005d

analyze the “whole of an action” in an MND, it may be “piecemealing” the environmental review process and thwarting informed decision-making and intelligent public review.

In this case, the MND fails to describe critical aspects of the Project. The County must prepare an EIR that accurately discloses the scope of the proposed Project.

A. The description of the Project’s water demand and supply is inadequate and fails to provide the public and decision-makers with a meaningful opportunity to review all of the Project’s impacts

As discussed above, the County is required under the Water Code to identify the Project’s proposed water demand and supply. This information is also necessary, however, for an adequate CEQA analysis. Under CEQA the lead agency must analyze all of the Project’s potential impacts. As the MND is currently written, it is impossible for the public and decision-makers to assess the Project’s impacts to the regional water supply. In addition, depending on the Project’s actual water demand and water source, the Project could impact air quality, greenhouse gas emissions and traffic. The Project may also conflict with the Stanislaus County Code and require additional right-of-way entitlements to convey water from an offsite source to the Project site. The County must provide a complete description of the Project’s water demand and supply so that decision-makers and the public can meaningfully review the Project’s impacts to these resources.

1. The failure of the County to describe the Project’s water demand and supply renders it impossible for the public and decision-makers to meaningfully assess the Project’s impacts to the regional water supply

The County’s failure to identify the total Project’s water demand for irrigation, construction, operation and fire suppression renders the Project’s impacts on the regional water supply uncertain. As the County recognizes in the MND, water supply to the Project site has been problematic in recent years.⁵⁰

⁵⁰ MND, pp. 2-1, 3-9, 3-70.
2520-005d

According to the MND, “[h]istoric water supply quantities at the project site have diminished gradually since 1992 due to legislative and judicial rulings.”⁵¹ In addition, future water supplies may not be available. The MND acknowledges that global warming “could lead to significant challenges securing an adequate water supply for a growing population.”⁵²

Given the bleak picture of water supplies on the Project site, it is absolutely vital for the County to describe the Project’s water demand for irrigation, construction and maintenance activities accurately so that decision-makers and the public can make intelligent decisions regarding the Project. The County must also identify a water source that can provide reliable water to the Project.

2. The failure of the County to describe the Project’s water demand and supply renders it impossible for the public and decision-makers to meaningfully assess the Project’s impacts to air quality and greenhouse gas emissions

The MND states that water may be trucked onto the Project site.⁵³ However, as discussed above, the MND likely underestimates the Project’s water demand during maintenance and does not acknowledge a demand for construction or fire suppression activities. Trucking water to the site may cause impacts to air quality and greenhouse gas emissions. The Air Quality Assessment prepared for the Lost Hills Solar PV Solar Project in Kern County found that eleven 4,000 gallon water trucks working 8 hours a day would emit VOCs, nitrogen oxide (“NO_x”), reactive organic gas (“ROG”), carbon monoxide (“CO”), carbon dioxide (“CO₂”), methane, nitrous oxide (“N₂O”) and particulate matter (“PM₁₀” and “PM_{2.5}”) just during project construction.⁵⁴ Operational emissions associated with maintaining the Lost Hills Solar PV Solar Project were identified for PM₁₀, PM_{2.5}, CO, ROG, NO_x, sulfur oxide, CO₂, methane and N₂O.⁵⁵ Emissions of CO₂, methane and N₂O are

⁵¹ *Id.* at 3-70.

⁵² *Id.* at 3-40.

⁵³ *Id.* at 3-71.

⁵⁴ NextLight, LLC, Air Quality Assessment for the Lost Hills Solar Photovoltaic Solar Project (Jan. 15, 2009) pp. 4-7, 4-8, 4-9, 4-10 Appendix A (see excerpts in Attachment I) (hereafter Lost Hills Solar Air Quality Assessment).

⁵⁵ Lost Hills Solar Air Quality Assessment, Appendix A.
2520-005d

classified as greenhouse gas emissions.⁵⁶ California regulates emissions of ozone precursors, such as ROG, PM10, PM2.5, CO, NO2 and SO2.⁵⁷

The amount of emissions generated by the proposed Project will vary depending on the distance the trucks travel from the water source to the Project site, the amount of trucks used and their operating time. Therefore, the Project's use of water trucks may have more or less of a significant impact on air quality and greenhouse gas emissions than the Lost Hills Solar PV Solar Project. It is impossible for the public and decision-makers to meaningfully assess these impacts, however, without a complete Project description.

3. The failure of the County to describe the Project's water demand and supply renders it impossible for the public and decision-makers to meaningfully assess the Project's impacts to traffic

The MND recognizes that that the Project would generate construction traffic in the form of worker vehicles.⁵⁸ The MND also states that “[o]n occasion, crews would come to the project site on a quarterly basis to maintain and wash the solar panels and to maintain on-site vegetation.”⁵⁹ The County did not consider trucking water to the Project site for construction and maintenance in measuring the Project's impacts to traffic. Without disclosure and discussion of these impacts, a fair argument exists that the Project may significantly impact environmental resources. The County must disclose in an EIR all potentially significant impacts associated with transporting water to the Project site. The County may only do this, however, if it provides a complete and adequate description of the Project's proposed water demand and supply.

⁵⁶ *Ibid.*

⁵⁷ Cal. Air Resources Bd., Ambient Air Quality Standards (Attachment J).

⁵⁸ MND, p. 3-68.

⁵⁹ *Ibid.*

2520-005d

4. The failure of the County to describe the Project's water demand and supply renders it impossible for the public and decision-makers to meaningfully assess the Project's compliance with the Stanislaus County Code

Chapter 4.12 of the Stanislaus County Code lays out “those steps necessary to ensure an adequate local supply of water.”⁶⁰ One of those steps includes the requirement that “[w]ater must not be wasted and must be retained on site and now allowed to escape to roads or streets.”⁶¹ While the MND does not accurately describe the amount of water the Project will use during operation, Project maintenance activities may cause substantial amounts of water to be wasted. Specifically, the MND states that the PV solar panels would be washed using a boom truck mounted with a water spray rig.⁶² This method of cleaning the solar panels may result in significant amounts of water running off the panels and permeating the ground or escaping to roads or streets. To minimize water waste, other applicants have proposed washing the solar panels by hand with sponge and squeegee “to keep the overall water consumption low.”⁶³ Depending on the Project's water demand, the County may need to mitigate impacts by requiring the Applicant to adopt greater water conservation measures.

5. The failure of the County to describe the Project's water demand and supply renders it impossible for the public and decision-makers to meaningfully assess the Project's right-of-way entitlements and infrastructure for the conveyance of water to the Project site

Water from an offsite source may require new infrastructure, modifications to existing infrastructure and/or additional federal, State and local approvals. Using water from any of these sources raises a myriad of potentially significant effects and legal issues that have not yet been addressed, including impacts on groundwater from increased extraction, impacts on State water from California's State Water Project, impacts on biological resources, land use, and air quality from construction

⁶⁰ Stanislaus County Code, § 14.12.010.

⁶¹ Stanislaus County Code, § 14.12.020, subd. (H).

⁶² MND, pp. 2-13, 3-71.

⁶³ Westwood Professional Services, Inc., Preliminary Hydrology Study Lucerne Solar Project, Jan. 22, 2010, p. 14 (see excerpts attached in Attachment K).
2520-005d

of pipelines, availability and reliability of water supplies, legal entitlements, need for further right-of-ways, effects from trucking water to the site and others. The County cannot provide an adequate assessment of these impacts until it provides a complete description of the Project.

B. The description of the Project's components is inadequate and fails to provide the public and decision-makers with a meaningful opportunity to review all of the Project's impacts

1. The MND does not contain a complete description of the Project's staging and parking areas

A complete description of the Project's parking and staging areas is necessary to assess the Project's impacts. During construction, the County expects that up to 14 crew members would drive to the Project site.⁶⁴ Construction equipment would also be transported to the site where it will be stored.⁶⁵ According to the MND, there would be one staging area per phase where equipment, such as pile drivers, forklifts, portable welders, man lifts, steel beams, framework, panels and miscellaneous bolts, screens and wires would be stored.⁶⁶

The MND does not indicate, however, where the construction crew members or delivery trucks will park. It also does not describe whether the surface of parking and/or staging areas will be permeable or impermeable, and whether parking and/or staging areas will be located close to sensitive natural resources, such as Little Salado Creek or Salado Creek. Depending on the use, size, surface composition and location, the Project's staging and parking areas could cause unanalyzed and unmitigated impacts to surface waters and biological resources. The County must describe the Project's staging and parking areas so that decision-makers and the public can adequately assess the Project's impacts.

⁶⁴ MND, p. 3-68.

⁶⁵ *Ibid.*

⁶⁶ *Id.* at 2-13.

2520-005d

2. The MND does not contain an adequate description of the hydrologic design of the Project site

The MND states that the hydrologic design for the Project would result in rainfall runoff being captured and detained by means of swales and “temporary” detention basins.⁶⁷ There is, therefore, no evidence that the hydrologic design of the site will be temporary. As discussed in this comment letter, the MND lacks basic information about the hydrologic conditions on the Project site and the impacts runoff from solar panel cleaning may have. Because the Project’s hydrologic design may be permanent, the size and design of the swales and detention basins must be described in the MND for the public and decision-makers to assess all of the Project’s impacts.

For example, there are two types of detention basins: the dry detention basin (designed to completely empty over a specified time) and the extended detention basin (designed to maintain a permanent or semi-permanent pool).⁶⁸ If the Project will implement a dry detention basin, the County should disclose that its effectiveness is rated low to moderate compared to other storm water Best Management Practices (“BMPs”) and analyze whether the basin will be effective in reducing impacts associated with runoff.⁶⁹ If the Project will implement the extended detention basin, the County should disclose whether wildlife would be exposed to potentially contaminated water collected on the Project site.

3. The MND does not contain an adequate description of security measures the Project may need

It is reasonably foreseeable that the Project may need additional security measures to augment the 5-foot-high cyclone fencing proposed along the frontage of I-5 and the southern boundary of Fink Road.⁷⁰ Vandalism and theft are significant problems for remote solar facilities.⁷¹ To ensure public safety and protect

⁶⁷ *Id.* at 3-51.

⁶⁸ Natural Resources Conservation Service, Planning and Design Manual, Detention Basin, p. 1 (Attachment L) (hereafter NRCS Planning and Design Manual).

⁶⁹ *Id.* at 2.

⁷⁰ MND, p. 2-6.

⁷¹ *Over 120 Photovoltaic Panels Stolen from Solar Power Plant*, Prague Daily Monitor, Dec. 15, 2010 (Attachment M); Margaret, *Chico, CA: hotbed of solar crime*, getsolar.com, posted Mar. 31, 2009 2520-005d

equipment from theft and vandalism, other applicants have proposed 24-hour security at the site, day/night closed-circuit security cameras and human-activated motion lighting.⁷² If the Applicant or the County intends to take any of these, or additional security measures, the impacts of those measures must be analyzed and mitigated. Measures, such as motion lighting, could impact biological resources and cause undisclosed aesthetic impacts.

C. The County must describe decommissioning activities

While the County repeatedly states that the impacts of the proposed Project will be “temporary” and “short-term” because decommissioning would restore the site to resemble its current condition, the MND contains absolutely no description of any decommissioning activities. The potential decommissioning of the Project is not only part of the “whole of the Project” that must be described in the MND, but also a critical element of the County’s impact analysis. Thus, a description of decommissioning activities and an analysis of potential impacts must be included in the MND.

Project components include a field of 84,000 PV solar panels, 7,000 uncoated steel I-beam posts, 1,400 buried electrical lines, security fencing, five utility buildings and a new ground mounted switch gear facility.⁷³ Construction of two of the phases includes “possible orchard removal” and the construction of another phase is proposed over Little Salado Creek and adjacent to Salado Creek.⁷⁴ In addition, approximately 6,000 cubic yards of roads would be graded for the Project site.⁷⁵

To “restore the site to resemble its current condition,” as the MND proposes, all of the components would have to be removed, including the access roads, the

(Attachment M); *90 Solar Panels Stolen from California Water Treatment Plant*, The Marin Independent Journal, Mar. 8, 2009 (Attachment N); Marsha Dorgan, *Solar Panels Stolen*, Napa Valley Register, Dec. 11, 2008 (Attachment O); Kate Galbraith, *Solar Panels are Vanishing, Only to Reappear on the Internet*, New York Times, Sept. 24, 2008 (Attachment P).

⁷² San Benito County, Final Environmental Impact Report Panoche Valley Solar Farm, Sept. 2010, B-20.

⁷³ MND, pp. 2-5 to 2-13.

⁷⁴ JKB Energy, Plot Plan (Attachment Q).

⁷⁵ MND, p. 2-6.

Creeks restored and a new orchard planted. Removal of site structures and restoration activities can cause noise, air quality, biological resources, public health, soils and geologic resources, transportation, aesthetic and impacts to surface waters and the water supply.⁷⁶ If the County or Applicant will decommission the site, the County must describe all reasonably foreseeable decommissioning activities in the MND and analyze their potential impacts. If decommissioning will not occur, the County cannot legally base its analysis on the “short-term” nature of the Project’s impacts.

IV. THE MND FAILS TO ADEQUATELY DESCRIBE THE EXISTING BASELINE AS REQUIRED BY CEQA

The MND’s failure to describe the existing setting adequately contravenes the fundamental purpose of the environmental review process, which is to determine whether there is a potentially substantial, adverse change compared to the existing setting. CEQA requires that a lead agency include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time environmental review commences.⁷⁷ As various courts have held, the impacts of a project must be measured against the “real conditions on the ground.”⁷⁸ The description of the environmental setting constitutes the baseline physical conditions by which a lead agency may assess the significance of a project’s impacts.⁷⁹

The MND fails to describe existing biological resources, geology and soils, and hydrology on the Project site and in the vicinity. The failure to describe the existing setting precludes informed decision-making and public participation, contrary to the goals of CEQA. The County must gather relevant data and provide an adequate description of the existing setting in a draft EIR.

⁷⁶ Tribal Energy and Environmental Clearinghouse, Solar Energy Decommissioning/Site Reclamation Impacts (Attachment R).

⁷⁷ CEQA Guidelines, § 15125, subd. (a).

⁷⁸ *Save Our Peninsula Committee v. Monterey Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 121-22; *City of Carmel-by-the Sea v. Bd. of Supervisors* (1986) 183 Cal.App.3d 229, 246.

⁷⁹ CEQA Guidelines, § 15125, subd. (a).

A. The MND must adequately describe biological resources on the Project site

The MND fails to provide an adequate description of the presence of special-status biological resources on the Project site against which to assess the Project's impacts. As discussed in Mr. Cashen comments, the MND is completely devoid of any meaningful evaluation of potentially significant adverse impacts to sensitive plant and wildlife species. The County must require the preparation of a Biological Report and include the findings in an EIR.

The MND itself acknowledges that because no focused protocol-level surveys were conducted on the Project site, "no conclusive determination can be made at this time regarding the presence or absence of special status plants and animals."⁸⁰ The MND's biological assessment relies on information contained in the California Natural Diversity Database ("CNDDDB") and one reconnaissance-level survey, which was not made available to the public. The MND discloses, however, that the "CNDDDB only includes previously documented occurrences" and "the search results should not be considered as a comprehensive list of special-status species that could occur in the project site and vicinity."⁸¹ The MND effectively concedes that the information presented is insufficient to determine the Project's potential impacts to plants and wildlife.

Mr. Cashen's comments highlight further the inadequacy of the CNDDDB as a basis for analyzing sensitive plant species on the Project site. According to Mr. Cashen, many special-status plant species occur in discrete populations miles apart and their ecology is poorly understood.⁸² This has prompted the California Department of Fish and Game ("CDFG") to clarify that the Department does not "portray the CNDDDB as an exhaustive and comprehensive inventory of all rare species and natural communities statewide."⁸³ For this reason, the County's reliance on the CNDDDB and failure to conduct site-specific surveys for sensitive

⁸⁰ MND, p. 3-21.

⁸¹ *Ibid.*

⁸² Scott Cashen, M.S., letter to Robyn C. Purchia, Attorney, Adams Broadwell Joseph & Cardozo, Dec. 27, 2010, p. 2 (Attachment A) (hereafter Cashen Comments).

⁸³ Cal. Dept. of Fish and Game, *California Natural Diversity Database* <http://www.dfg.ca.gov/biogeodata/cnddb/cnddb_info.asp> [as of Jan. 3, 2011]. 2520-005d

plant species does not provide an adequate evidentiary basis to make a determination with regard to the biological impacts of the Project.

The CNDDDB has records of four special status plant species occurring within 5 miles of the Project site.⁸⁴ The MND concludes without any evidence, however, that these species are not present on the Project site because the agricultural fields do not provide appropriate habitat.⁸⁵ According to Mr. Cashen, this conclusion is “not scientifically valid” because these plant species have been found on similar agricultural land.⁸⁶ Thus, sensitive plant species inventoried by the CNDDDB may be present on the Project site, as well as other species not listed by the CNDDDB.

In addition, Mr. Cashen notes that the MND “lacks any information on the Project’s impacts to nesting birds.”⁸⁷ The Migratory Bird Treaty Act protects bird species that may nest on the Project site and in the surrounding vicinity.⁸⁸ The MND does not provide any information, however, regarding whether the Project site or the vicinity around the Project site is used by migratory birds protected by the Act. This baseline information is necessary to determine the Project’s impacts.

In Mr. Cashen’s opinion, protocol-level surveys of the Project site are necessary to evaluate the Project’s impacts on sensitive biological resources. Without the results of protocol-level surveys, it is impossible to assess the Project’s impacts to sensitive plant species, as well as other wildlife that may be present on the site. The County must require such surveys prior to Project approval, so that it may accurately describe the environmental baseline and accurately assess the Project’s impacts. Without the results of these surveys it is impossible to assess all of the Project’s impacts.

B. The MND must adequately describe the geology and soils on the Project site

The MND does not contain a sufficient baseline description against which to measure the likelihood that Project structures (i.e. solar panels and utility

⁸⁴ MND, p. 3-23; Cashen Comments, p. 2.

⁸⁵ MND, p. 3-25.

⁸⁶ Cashen Comments, p. 2.

⁸⁷ *Id.* at p. 4.

⁸⁸ *Ibid.*

2520-005d

buildings) would be exposed to liquefaction during a seismic event. According to the MND, the County did not provide this information on the mistaken belief that CEQA only requires an analysis of impacts to structures intended for human habitation.⁸⁹ However, CEQA contains no such limitation. According to Appendix G to the CEQA Guidelines, agencies must evaluate whether proposed projects will “expose people *or structures* to potential substantial adverse effects” from “seismic-related ground failure, including liquefaction.”⁹⁰ Because the County is required to evaluate whether the proposed Project will expose structures to liquefaction, the County must adequately describe the existing conditions on the Project site so that the public and decision-makers can evaluate the risk of liquefaction. As the MND recognizes, an adequate description would be informed by the preparation of a geotechnical analysis that measures the depth to groundwater at the Project site.⁹¹

C. The MND must adequately describe hydrology on the Project site

The MND contains an insufficient description of surface water resources on the Project site. On the Plot Plan there appear to be two surface water resources on the Project site -- Little Salado Creek and Salado Creek. The MND insufficiently describes Little Salado Creek and completely omits any description of Salado Creek.

The MND recognizes that Little Salado Creek, “an ephemeral drainage” enters the Project site from the west and flows across the Project site to the San Joaquin River.⁹² The eastern “section” of the Creek has been realigned over time and may constitute “jurisdictional waters.”⁹³ The MND does not make clear, however, where the “eastern section” begins and ends, and whether the Creek constitutes waters of the United States and/or the State.

The MND does not contain any description of Salado Creek that runs along the northern border of the Project site towards the Aqueduct.⁹⁴ Aerial images

⁸⁹ MND, p. 3-37.

⁹⁰ CEQA Guidelines, Appendix G; MND, p. 3-34.

⁹¹ MND, p. 3-36.

⁹² *Id.* at 3-5, 3-19, 3-49.

⁹³ *Id.* at 3-19, 3-27, 3-73.

⁹⁴ JKB Engineer, Plot Plan.

2520-005d

suggest that Salado Creek could support riparian vegetation. However, Salado Creek's other characteristics remain a mystery. It is unclear whether the Creek is ephemeral, has defined banks, is jurisdictional, supports local biological resources, has a history of morphology and overflows during storm events. All of this information is necessary to assess Project impacts.

The County must provide more baseline information about Little Salado Creek and Salado Creek. For example, the Applicant must obtain permits from the United States Army Corps of Engineers and the Regional Water Quality Control Board, as well as a Streambed Alteration Agreement from the CDFG if Project activities will impact jurisdictional waters. Without a jurisdictional delineation and a complete description of the surface waters on the Project site, it is impossible for the public and decision-makers to evaluate whether the Applicant will comply with all federal and State laws.

It is also impossible to know whether Project development will affect biological resources that depend on Little Salado Creek and Salado Creek. According to Mr. Cashen, dozens of plant and animal species in California depend on seasonal pool habitats.⁹⁵ If Project activities will degrade the water quality of these features, the Project may result in an additional direct or indirect impact that was not analyzed or mitigated in the MND.

The MND failed to include a complete and accurate description of surface water resources on the Project site. Without an adequate description, the MND's impact analysis and identification of mitigation measures is unsupported.

V. AN EIR IS REQUIRED BECAUSE SUBSTANTIAL EVIDENCE SUPPORTS A FAIR ARGUMENT THAT THE PROJECT MAY RESULT IN A SIGNIFICANT IMPACT ON THE ENVIRONMENT

CEQA contains a strong presumption in favor of requiring a lead agency to prepare an EIR. This presumption is reflected in the "fair argument" standard of review. Under that standard, a lead agency must prepare an EIR whenever

⁹⁵ Cashen Comments, p. 16.
2520-005d

substantial evidence in the whole record before the agency supports a fair argument that a project may have a significant effect on the environment.⁹⁶

Under the “fair argument” standard, a negative declaration is improper, and an EIR is required, whenever substantial evidence in the record supports a “fair argument” that significant impacts may occur, even if other substantial evidence supports the opposite conclusion.⁹⁷ The “fair argument” standard creates a “low threshold” favoring environmental review through an EIR rather than through issuance of negative declarations or notices of exemption from CEQA.⁹⁸ As a matter of law, “substantial evidence shall include facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts.”⁹⁹ An agency’s decision not to require an EIR can be upheld only when there is no credible evidence to the contrary.¹⁰⁰ Substantial evidence supporting a fair argument that a project may have significant environmental impacts can be provided by technical experts or members of the public.¹⁰¹

In addition, under CEQA impacts that are short-term or temporary in nature may nonetheless be significant.¹⁰² It is well settled in CEQA case law that “short-term effects may have such significance as to require an EIR.”¹⁰³ An agency may not, therefore, minimize the significance of an impact just because it is of a “temporary” or “short-term” nature.

The MND prepared for the Project fails to analyze and mitigate all of the Project’s impacts, and minimizes other impacts by labeling them “temporary” and “short term.” Currently, a fair argument exists that the Project may cause a significant impact to biological resources, public health, agricultural resources,

⁹⁶ Pub. Resources Code, § 21082.2; *Laurel Heights, supra*, 6 Cal.4th at 1123; *No Oil, Inc. v. County of Los Angeles* (1974) 13 Cal.3d 68, 75, 82; *Quail Botanical Gardens, supra*, 29 Cal.App.4th at 1602.

⁹⁷ *Stanislaus Audubon v. County of Stanislaus, supra*, 33 Cal.App.4th at 150-51; *Quail Botanical Gardens, supra*, 29 Cal.App.4th at 1602.

⁹⁸ *Citizens Action to Serve All Students v. Thornley, supra*, 222 Cal.App.3d at 754.

⁹⁹ Pub. Resources Code, § 21080, subd. (e)(1); CEQA Guidelines, § 15064, subd. (f)(5).

¹⁰⁰ *Sierra Club v. County of Sonoma*, (1992) 6 Cal.App.4th, 1307, 1318.

¹⁰¹ CEQA Guidelines, § 15063, subd. (a)(3); *Gabric v. County of Rancho Palos Verdes, supra*, 73 Cal.App.3d at 199.

¹⁰² CEQA Guidelines, § 15126.2, subd. (a).

¹⁰³ *No Oil, Inc. v. City of Los Angeles, supra*, 13 Cal.3d at 85; see also *Running Fence Corporation v. Superior Court of Sonoma* (1975) 51 Cal.App.3d 400, 424.

aesthetic resources and noise. Under CEQA the County must prepare an EIR for the proposed Project.

A. Substantial evidence supports a fair argument that the Project may result in significant unmitigated impacts to biological resources

Scott Cashen, an expert in biological resources, reviewed the MND's analysis of impacts on biological resources. Mr. Cashen determined that the County failed to disclose and analyze all of the Project's significant impacts to biological resources and identify feasible mitigation measures necessary to reduce those impacts. Mr. Cashen's opinion constitutes substantial evidence that the Project may cause a significant impact to the environment. Therefore, the County must prepare an EIR for the Project.

1. The Project may result in significant impacts to Golden Eagles

The MND did not acknowledge any impacts to federally protected golden eagles. Golden eagles are protected under the Bald and Golden Eagle Protection Act. The Act makes it illegal to "take" a golden eagle without a federal permit. "Take" is defined as to pursue, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest or disturb.¹⁰⁴ "Disturb" is further defined as:

[T]o agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.¹⁰⁵

CNDBB records identify golden eagles nesting 6.5 miles south of the Project site.¹⁰⁶ According to Mr. Cashen, the grasslands and fallow fields present on the

¹⁰⁴ 50 C.F.R. § 22.3.

¹⁰⁵ *Ibid.*

¹⁰⁶ Cashen Comments, p. 3.
2520-005d

Project site represent suitable foraging habitat for golden eagles.¹⁰⁷ Because suitable foraging areas exist within 10 miles of a documented nest site, Mr. Cashen's opinion is that the site "may serve a critical role in maintaining the 'normal feeding behavior' protected by the Bald and Golden Eagle Protection Act."¹⁰⁸

The MND fails to disclose, analyze and mitigate this potentially significant impact. The County must require the Applicant to provide data that conforms to the minimum inventory requirements specified by the United State Fish and Wildlife Service ("USFWS"). Depending on the results of the data, the County must disclose any impacts and provide feasible mitigation measures. The County must provide this information in an EIR that is circulated for public review.

2. The Project may result in significant impacts to Western burrowing owls

The MND states that burrowing owls may be impacted by Project development.¹⁰⁹ According to the MND, however, mitigation measures, such as preconstruction surveys, a "250 buffer" extending beyond all areas subject to disturbance and appropriate avoidance measures as determined through consultation with the CDFG will reduce impacts to a less-than-significant level.¹¹⁰ This conclusion is not supported by substantial evidence.

The MND's mitigation measures do not follow CDFG guidelines. For example, CDFG Guidelines indicate that surveys for burrowing owls should be conducted during both the wintering and nesting seasons, unless the species is detected during the first survey.¹¹¹ If surveys confirm that a Project site is occupied by burrowing owls, CDFG guidance states that measures to minimize impacts to burrowing owls, their burrows and foraging habitat be incorporated into the CEQA document as enforceable conditions.¹¹²

¹⁰⁷ *Id.* at pp. 3-4.

¹⁰⁸ *Id.* at p. 4.

¹⁰⁹ MND, p. 3-25.

¹¹⁰ *Id.* at. 3-26.

¹¹¹ Mem. from the Dept. of Fish and Game on Burrowing Owl Mitigation (Oct. 17, 1995), p. 4 (Attachment S).

¹¹² *Id.* at p. 2.

2520-005d

The MND must, but fails to, propose specific, enforceable measures that avoid and minimize potentially significant impacts to burrowing owls at the Project site and preserve habitat that will support viable owl populations.¹¹³ Specifically, to offset the loss of foraging and burrow habitat on the Project site, a minimum of 6.5 acres of foraging habitat per pair or unpaired resident bird should be acquired by the Applicant.¹¹⁴ The Applicant should also provide funding to ensure the long-term management and monitoring of the acquired lands.¹¹⁵ The MND fails to require this mitigation.

Thus, the County may not conclude that impacts to Western burrowing owls are reduced to a less-than-significant level. The County must require that adequate surveys be conducted to assess Western burrowing owl presence on the Project site. The results of these surveys must be included in an EIR prepared for the Project. Because Western burrowing owls are likely present on the Project site, the County must also incorporate mitigation measures that comply with CDFG protocol.

3. The Project may result in significant impacts to the Valley Elderberry Longhorn Beetle

The Valley elderberry longhorn beetle is a federally threatened species. The MND states that the beetle may be present on the Project site but does not propose adequate mitigation measures to avoid or reduce the Project's impacts. In Mr. Cashen's opinion, impacts to the Valley elderberry longhorn beetle are not less than significant.

The preconstruction surveys described in the MND may not be sufficient to detect elderberry shrubs within the Project site.¹¹⁶ Specifically, the MND does not provide basic information as to who will conduct the survey and when it will be conducted. The Project may, therefore, cause undisclosed and unmitigated impacts to a federally threatened species.

¹¹³ See *id.* at p. 5.

¹¹⁴ *Id.* at p. 6.

¹¹⁵ *Ibid.*

¹¹⁶ Cashen Comments, p. 6.

If elderberry shrubs are found during preconstruction surveys, the MND proposes to prohibit ground-disturbing activities within 20 feet of the shrub to avoid impacts.¹¹⁷ This measure, however, would not avoid the Project's impacts. The USFWS only assumes complete avoidance when a 100-foot buffer is established.¹¹⁸ Shading and wind deflection caused by the Project's structures will impact soil temperature and evaporation.¹¹⁹ In addition, maintenance water to clean the solar panels will increase soil moisture.¹²⁰ According to Mr. Cashen, these factors may have an adverse impact on elderberry plants if an adequate buffer is not established.¹²¹

If avoidance is not feasible, the Applicant will have to obtain a federal Incidental Take Permit and comply with USFWS guidelines regarding transplanting affected elderberry shrubs to a conservation area and potential replacement planting.¹²² The MND, however, does not require the Applicant to comply with these federal rules if impacts to elderberry shrubs cannot be avoided. Without specific, enforceable mitigation measures to reduce the Project's impacts, the County may not conclude that impacts to Valley elderberry longhorn beetles will be less than significant.

4. The Project may result in significant impacts to Swainson's hawks

Swainson's hawks are a California threatened species.¹²³ The MND finds that Swainson's hawks could occur on the Project site and discloses one nesting occurrence within 5 miles of the Project site.¹²⁴ In fact, numerous Swainson's hawk nests occur within 10 miles of the Project site and Project development may impact their foraging and breeding habitat.¹²⁵ During its review of the neighboring Scatec

¹¹⁷ See MND, p. 3-26; Cashen Comments, p. 6.

¹¹⁸ Cashen Comments, p. 6, citing U.S. Fish and Wildlife, *Conservation Guidelines for the Valley Elderberry Longhorn Beetle* (July 9, 1999), p. 3
<http://www.fws.gov/sacramento/es/documents/velb_conservation.pdf> [as of Jan. 3, 2011].

¹¹⁹ Cashen Comments, p. 6.

¹²⁰ *Ibid.*

¹²¹ *Ibid.*

¹²² See *id.* at pp. 6-7.

¹²³ MND, p. 3-24, Cashen Comments, p. 7.

¹²⁴ MND, p. 3-24.

¹²⁵ Cashen Comments, p. 8.

Westside Solar Ranch, the Department of Fish and Game commented that the County needed to consider impacts to Swainson's hawks.¹²⁶ Despite the Project's proximity to the Scatec Westside Solar Ranch and the probability that Swainson's hawks use the Project site for foraging and nesting, the County's MND does not analyze impacts to the species, however, or propose any specific, enforceable mitigation measures.

Development of the Project may impact valuable Swainson's hawk foraging habitat. The MND recognizes that Swainson's hawks could use dry farm land and grasslands on the Project site for foraging.¹²⁷ In addition, studies have indicated that Swainson's hawks may travel up to 18 miles from their nests in search of food.¹²⁸ Thus, numerous Swainson's hawks within a 10-mile radius of the Project site may use the site for foraging. The CDFG has developed varying levels of mitigation for projects within <1 mile, 1-5 miles and 5-10 miles of an active Swainson's hawk nest. To determine the level of mitigation necessary, the County must require the Applicant to determine the number of active nests in a 10-mile radius around the Project site. The County must then impose specific, enforceable mitigation measures to reduce any impacts to this species.

Development of the Project may also impact valuable Swainson's hawk breeding habitat. Swainson's hawks nest in riparian forests and in isolated and roadside trees.¹²⁹ According to Mr. Cashen, the riparian trees along Salado Creek provide suitable nesting sites for Swainson's hawks.¹³⁰ Mr. Cashen's opinion is consistent with the opinion of the Applicant's biological resources consultants who stated that there are likely unreported occurrences of the species within the vicinity.¹³¹ The MND's conclusion that Swainson's hawks are not expected to nest on the Project site may, therefore, be misleading. The County must assess whether Swainson's hawks are present in the riparian trees on the northern border of the

¹²⁶ Jeffrey R. Single, Ph.D., Cal. Dept. of Fish and Game, letter to Rachel Wyse, Stanislaus County Planning and Community Development Dept., Oct. 18, 2010, p. 3 (Attachment T).

¹²⁷ MND, p. 3-24.

¹²⁸ Cashen Comments, p. 8.

¹²⁹ *Id.* at p. 11.

¹³⁰ *Ibid.*

¹³¹ Todd Chambers, Senior Project Manager, AECOM, mem. to Scott Belyea, JKB Energy, Apr. 6, 2010, p. 3.

2520-005d

Project site, analyze any potential impacts and propose all feasible mitigation measures.

The MND completely fails to analyze the Project's impacts to Swainson's hawks and propose any mitigation measures. The County may not, therefore, conclude that the Project's impacts will be less than significant. The County must revise its analysis of impacts to these species and propose mitigation measures in an EIR that is circulated for public review.

5. The Project may result in impacts to San Joaquin kit fox

The San Joaquin kit fox is a federally endangered species and a California threatened species.¹³² According to Mr. Cashen, Project development would cause undisclosed and unmitigated impacts to the species. The County must revise its analysis to include a complete evaluation of the Project's impacts and all feasible mitigation measures.

The USFWS issued the *Recovery Plan for Upland Species of the San Joaquin Valley*, which includes recovery strategies for San Joaquin kit fox populations found within the region of the Project site. The *Recovery Plan* depicts the Project site as an area "along the valley's edges within which a contiguous band of natural lands and wildlife-compatible farmlands should be maintained."¹³³ The Project would not maintain natural lands or wildlife-compatible farmlands west of I-5. It would, therefore, conflict with the *Recovery Plan*. The MND fails to disclose this conflict.

According to Mr. Cashen, the Project's conflict with the *Recovery Plan* is especially problematic because San Joaquin kit foxes exhibit a metapopulation structure.¹³⁴ The ability to move across the landscape is important for metapopulations so that genetic diversity can be maintained and uninhabited areas can be populated.¹³⁵ Project development may inhibit San Joaquin movement and directly impact the species.

¹³² MND, p. 3-24.

¹³³ Cashen Comments, p. 13.

¹³⁴ *Ibid.*

¹³⁵ *Ibid.*

2520-005d

The MND proposes to maintain a 6-inch gap below the Project fence to enable kit fox movement.¹³⁶ Mr. Cashen does not believe this is sufficient.¹³⁷ There is no evidence to support the MND's assumption that kit foxes will crawl beneath the fence and continue to move along the corridor.¹³⁸ In addition, there is no evidence that the solar arrays will not create a barrier.¹³⁹

Because the County has not disclosed the Project's conflicts with the *Recovery Plan* and general movement of San Joaquin kit foxes, there may be undisclosed and unanalyzed impacts to the species. In addition, there is no evidence to suggest that the mitigation measures proposed in the MND are sufficient to reduce the Project's impacts. Therefore, the County must revise its analysis and include its findings in an EIR.

6. The Project may result in impacts to Western Spadefoots

Western spadefoots are a California species of special concern.¹⁴⁰ While on the one hand the MND acknowledges that the species "could occur" on the Project site, it reaches the contrary conclusion that spadefoots are not expected to occur "because no vernal pools or seasonal wetlands were observed on-site during the reconnaissance survey."¹⁴¹ Mr. Cashen has found that western spadefoot habitat is not limited to vernal pools and seasonal wetlands, however, but also includes drainage ditches, stock ponds and artificial seasonal depressions.¹⁴² The Applicant's own biological consultant indicated that such habitat features were present on the Project site.¹⁴³ Thus, in Mr. Cashen's opinion, western spadefoots may be present on the Project site and the County must analyze potential impacts to the species and fashion appropriate mitigation measures in an EIR.¹⁴⁴

¹³⁶ MND, p. 3-26.

¹³⁷ Cashen Comments, p. 14.

¹³⁸ *Ibid.*

¹³⁹ *Ibid.*

¹⁴⁰ MND, p. 3-23; Cashen Comments, p. 14.

¹⁴¹ MND, p. 3-25.

¹⁴² Cashen Comments, p. 15.

¹⁴³ Todd Chambers, Senior Project Manager, AECOM, mem. to Scott Belyea, JKB Energy, Apr. 6, 2010, p. 4 (emphasis added).

¹⁴⁴ Cashen Comments, p. 15.

**7. The Project may result in undisclosed impacts to
Loggerhead Shrikes, Tricolored Blackbirds, San Joaquin
Whipsnakes and American Badgers**

The MND acknowledges that four California species of special concern are expected to occur or could occur on the Project site: the loggerhead shrike, the tricolored blackbird, the San Joaquin whipsnake and the American badger.¹⁴⁵ The MND does not analyze any impacts to these species, however, or propose any specific mitigation measures. It is unclear why the County has failed to analyze the Project's impacts to these species after disclosing their likely presence on the Project site. To comply with CEQA the County must analyze all of the Project's impacts and propose specific mitigation measures. The County cannot conclude that the Project's impacts will be less than significant without supporting evidence.

**8. The Project may result in polarized-light pollution that
may result in negative effects on plant and wildlife
communities**

The MND does not address whether polarized light produced by the dark PV solar cells will result in a negative effect on plant and wildlife communities. Studies have found that light that has been highly and horizontally polarized by artificial surfaces, such as smooth, dark buildings or solar panels, alters the natural patterns of polarized light within the environment resulting in polarized-light pollution.¹⁴⁶ Polarized-light pollution impacts plant and wildlife communities by negatively affecting the ability of animals to judge suitable habitats and egg laying sites and attracting or confusing dispersing and migrating individuals.¹⁴⁷ According to Mr. Cashen there is evidence of avian mortality resulting from collisions with clear and reflective sheet glass and plastic.¹⁴⁸ Negatively affecting the ability of animals to judge suitable habitats and egg laying sites and attracting or confusing

¹⁴⁵ MND, pp. 3-23 to 3-24.

¹⁴⁶ San Benito County, Final Environmental Impact Report for the Panoche Valley Solar Farm Project (Sept. 2010), pp. C.6-133 to 137 (hereafter Panoche Valley FEIR) citing to Horvath, et al., *Polarized Light Pollution: A New Kind of Ecological Photopollution*, Frontiers in Ecology and the Environment, In Press.

¹⁴⁷ *Ibid.*

¹⁴⁸ Cashen Comments, p. 16.

2520-005d

dispersing and migrating individuals may specifically impact birds that may occur on and adjacent to the Project site.¹⁴⁹

Other agencies have reviewed the impacts that polarized-light pollution from PV solar projects may have on plant and wildlife communities.¹⁵⁰ Thus, substantial evidence supports a fair argument that the Project may significantly impact plant and wildlife communities from polarized-light pollution that must be evaluated in an EIR.

B. Substantial evidence supports a fair argument that the Project may result in significant unmitigated impacts to public health

Matt Hagemann, an expert in hazardous materials, reviewed the MND's analysis of impacts on public health. Mr. Hagemann determined that the County failed to disclose and analyze all of the Project's significant impacts to public health and identify feasible mitigation measures necessary to reduce those impacts. Mr. Hagemann's opinion constitutes substantial evidence that the Project may cause a significant impact to the environment. Therefore, the County must prepare an EIR for the Project.

1. The Project may result in significant impacts to construction workers due to the undisclosed gas well on the Project site

Through Mr. Hagemann's review of the California Division of Oil Gas and Geothermal Resources ("DOGGR") database, he identified an oil and gas well on the Project site located on the border of one of the planned phases.¹⁵¹ Although the well was plugged in 1961, in Mr. Hagemann's opinion the well can still pose a public health risk to construction workers. Therefore, mitigation measures are necessary to ensure that the Project has a less-than-significant impact. The County, however, did not disclose the presence of the well in the MND. Thus, there is no analysis of the well's potential impacts and no proposed mitigation measures. Because Mr.

¹⁴⁹ See MND, pp. 3-23 to 3-24.

¹⁵⁰ See Panoche Valley FEIR, pp. C.6-133 to 137.

¹⁵¹ Matt Hagemann, SWAPE, letter to Robyn C. Purchia, Attorney, Adams Broadwell Joseph & Cardozo, Dec. 23, 2010, pp. 1-2 (Attachment B) (hereafter Hagemann Comments).
2520-005d

Hagemann's opinion constitutes substantial evidence that the abandoned well could cause public health impacts to construction workers, the County must prepare an EIR that discloses the presence of the well, analyzes the impacts and proposes feasible mitigation measure to avoid or reduce the Project's impacts.

Potential hazards from the abandoned well include, oil spills, the release of hydrocarbons or other toxic chemicals into the air and the general dangers of operating a facility in proximity to a well.¹⁵² Mitigation may include the exposure of the wells for leakage and testing prior to construction and/or the establishment of a no-build radius around the well. According to Mr. Hagemann, mitigation may also necessitate the abandonment of the well to current DOGGR standards.¹⁵³ The County must propose all feasible measures to ensure that impacts associated with the abandoned well are fully mitigated and will not affect construction crews present on the Project site.

2. The Project may result in significant impacts to construction workers from pesticides in the ground

Neither the MND nor the Phase I ESA identified or analyzed the use of pesticides on the Project site. In Mr. Hagemann's opinion, the use of pesticides associated with almond orchards may be found in the Project site's soils at concentrations hazardous to human health.¹⁵⁴ The County must disclose this potential impact to public health and propose all feasible mitigation measures.

Almond orchards are potentially associated with organochlorine pesticides (i.e. DDD, DDT, DDE, Toxaphene and Dieldrin) and arsenic-based pesticides.¹⁵⁵ Exposure to DDT, DDE and lead arsenate pesticides may cause severe health effects. For example, exposure to DDT and DDE may cause headaches, nausea, convulsions, reproductive effects and cancer risk.¹⁵⁶ In addition, exposure to lead arsenate pesticides may impact the nervous system and kidneys of adults.¹⁵⁷

¹⁵² Kern County Planning Dept., Notice of Preparation for the Lost Hills Solar Project by NextLight, Mar. 8, 2010, p. 34.

¹⁵³ Hagemann Comments, p. 3.

¹⁵⁴ *Ibid.*

¹⁵⁵ *Ibid.*

¹⁵⁶ Environmental Protection Agency, DDE (Attachment U).

¹⁵⁷ State of Wisconsin, Human Health Hazards Lead Arsenate Pesticides in Soil (Attachment V). 2520-005d

Because the potential exists that construction workers and future site personnel may be exposed to these harmful pesticides, Mr. Hagemann recommends that the County sufficiently evaluate the presence of organochlorine and arsenic-based pesticides in the soil.¹⁵⁸ The County must recognize Mr. Hagemann's expert opinion as substantial evidence and prepare an EIR that incorporates sampling from a Phase II ESA.

C. Substantial evidence supports a fair argument that the Project may result in significant unmitigated impacts to agricultural resources

The MND's evaluation of agricultural impacts is deficient because it impermissibly assumes that short-term impacts are not significant and that upon decommissioning the site will be returned to its current condition. As discussed above, impacts that are short-term or temporary in nature may be significant.¹⁵⁹ In addition, there is no evidence to suggest that the Project's impacts will indeed be short term. The County must revise its evaluation of impacts to agricultural resources and provide specific mitigation measures to ensure that Project impacts will be less than significant.

Currently, approximately 1,040 acres of the Project site are in active agricultural production.¹⁶⁰ The site has been designated as Prime Farmland, Unique Farmland and Farmland of Statewide Importance.¹⁶¹ Project development will result in the loss of 800 acres of farmland.¹⁶² The MND concludes, however, that development does not constitute a "permanent" conversion and that, therefore, no mitigation is required.¹⁶³ The County may not minimize the Project's agricultural impacts just because they are of a "temporary" or "short-term" nature. The County's analysis of the Project's impacts to agricultural resources is completely inadequate.

¹⁵⁸ Hagemann Comments, p. 4.

¹⁵⁹ CEQA Guidelines, § 15126.2, subd. (a).

¹⁶⁰ MND, p. 3-8.

¹⁶¹ *Id.* at p. 3-9.

¹⁶² *Ibid.*

¹⁶³ *Id.* at pp. 3-9 to 3-10.

2520-005d

The threat that farmland conversion poses to the viability of continued agriculture in California cannot be overstated. In only a century and a half since the Gold Rush, almost 700,000 acres in the Central Valley alone has been developed for urban use. Almost 100,000 acres of this land was paved over in the 1990s alone. Within just the next generation, close to a million more acres of farmland could vanish, putting additional pressure on the ability of the region's farmers to continue producing food for the State, the nation and the world.¹⁶⁴ The Legislature has repeatedly held that conversion of agricultural land is a significant concern and that the preservation of agricultural land is a significant goal of the State.¹⁶⁵ The Legislature has further stated that CEQA shall play an important role in the preservation of agricultural lands.¹⁶⁶

Because the Project will likely significantly impact these valuable agricultural resources, the County must require the Applicant to comply with feasible mitigation measures. Consistent with standard practices, the MND must require the purchase of enforceable agricultural conservation easements *at least* at a 1:1 ratio for all prime farmland that the Project removes from possible agricultural production.¹⁶⁷ Numerous statutory schemes underscore the importance of preserving agricultural lands and point to conservation easements as an appropriate method to mitigate impacts to agriculture.¹⁶⁸

¹⁶⁴ American Farmland Trust, *The Future is Now: Central Valley Farmland at the Tipping Point?* (2006) (Attachment W).

¹⁶⁵ Gov. Code, § 51220 (Williamson Act findings that agricultural preservation is valuable and necessary); Civ. Code, § 815 (legislative declaration that preservation of agricultural lands "is among the most important environmental assets of California"); Pub. Resources Code § 10200, et seq. (California Farmland Conservancy Program Act, promoting the establishment of agricultural easements as a means to preserve agricultural land).

¹⁶⁶ Stats.1993, ch. 812, §1, subd. (d); see also Pub. Resources Code, §§ 21061.1, 21061.2, 21095.

¹⁶⁷ Where land is being permanently taken out of agricultural development, the purchase of conservation easements serve only as partial compensation because they do not create new replacement agricultural land, but rather only mitigate the development pressures and cumulative impacts on nearby agricultural land. In such cases, some jurisdictions have required the purchase of conservation easements at a greater ratio than 1:1. The City of Davis Municipal Code, for example, requires that "Two times as many acres of agricultural land shall be protected as was changed to a nonagricultural use in order to mitigate the loss of agricultural land" or "payment of a fee based upon a two-to-one replacement for a farmland conservation easement." (City of Davis Municipal Code § 40A.03.030.)

¹⁶⁸ See, e.g., California Land Conservation Act of 1965 ("Williamson Act"), Gov. Code 51200 et seq.; California Farmland Conservancy Program Act, Pub. Resources Code, § 10201 et seq.; Farmland 2520-005d

To fully mitigate impacts on agricultural lands, such mitigation must ensure that the conservation easements protect agricultural land of *equal or greater quality* as the land being converted. The San Joaquin County Agricultural Mitigation ordinance, for example, requires agricultural mitigation land to be of “comparable or better soil quality” than the agricultural land affected by a project.¹⁶⁹ The ordinance also requires evidence that the mitigation land has adequate and reliable water supply to support the agricultural use of the land.¹⁷⁰

The County must adequately analyze whether the Project will impact agricultural resources and base its finding on substantial evidence. The County must include this analysis in an EIR. Because it is likely that the Project will significantly impact agricultural resources, the County must require the Applicant to comply with the above-described mitigation measures.

D. Substantial evidence supports a fair argument that the Project may result in significant unmitigated impacts to aesthetic resources

As the MND recognizes, the California Department of Transportation (“Caltrans”) has designated I-5 an “officially designated state scenic highway” throughout all of Stanislaus County.¹⁷¹ Caltrans issued the *Scenic Highway Guidelines*, which provide guidance in determining minor, moderate and major visual intrusions. A major visual intrusion is defined under the *Guidelines* as dense and continuous development, highly reflective surfaces, development along ridgelines and buildings that dominate the landscape or obstruct scenic view.¹⁷²

If the County approves the Project, it will be approving “dense and continuous development” along the west side of I-5. I-5 is located directly east of

Protection Policy Act, 7 U.S.C., § 4201, et seq.; see also Gov. Code, § 815 et seq. (encouraging preservation of agricultural land through conservation easements); San Joaquin County Code, § 9-1080 (requiring 1:1 or greater mitigation ratio for agricultural land impacts); see also Davis Municipal Code, § 40A.03.030 (requiring 2:1 mitigation ratio for conversion of agricultural land).

¹⁶⁹ San Joaquin County Code of Ordinances § 9-1080.5, subd. (b).

¹⁷⁰ *Ibid.*

¹⁷¹ MND, p. 3-5.

¹⁷² Cal. Dept. of Transportation, *Scenic Highway Guidelines*, Appendix E, p. 23 (Attachment X). 2520-005d

the Project site and three of the Project's development phases are proposed adjacent to the highway.¹⁷³ The Fink Road Landfill is also located about one half of a mile to the southeast along the Interstate.¹⁷⁴ South of the Landfill the Scatec Westside Solar Ranch would lie approximately 0.5 – 1.5 miles west of I-5.¹⁷⁵ If the Project is approved, development would be continuous from the northern portion of the Project site to the southern portion of the Scatec Westside Solar Ranch.

According to the MND, southbound vehicle occupants will “have a direct and open view of the project site to the west.”¹⁷⁶ To mitigate this impact, the MND states that five rows of almond trees would provide screening of the Project from I-5.¹⁷⁷ It is unclear, however, whether five rows of almond trees would sufficiently screen the Project from the highway. Because the Project site is “gently rolling in most locations” the solar panels and five 15' x 15' utility buildings may be visible above the five rows of almond trees.¹⁷⁸ In fact, the MND finds that viewers would still see the solar farm, although the view would be “temporary” because the vehicles would be driving fast.¹⁷⁹

Scenic highways are reviewed by Caltrans every five years to determine if the scenic quality of the corridor has been maintained. Caltrans guidelines call for revocation of a Scenic Highway designation where the scenic landscape has been substantially degraded or altered.¹⁸⁰ By eliminating the rural landscape along this section of I-5, the Project threatens the continued designation of I-5 in Stanislaus County as a Scenic Highway. The County must disclose the impacts associated with approving continuous development along I-5 and propose mitigation measures that will effectively avoid or reduce the Project's impacts.

¹⁷³ MND, p. 3-5; JKB Energy, Plot Plan.

¹⁷⁴ MND, p. 2-2.

¹⁷⁵ Stanislaus County, CEQA Initial Study for the Scatec Westside Solar Ranch, p. 8.

¹⁷⁶ MND, p. 3-5.

¹⁷⁷ *Id.* at p. 3-6.

¹⁷⁸ See *id.* at pp. 2-6, 3-5, 3-6.

¹⁷⁹ *Id.* at p. 3-6.

¹⁸⁰ Caltrans, *Scenic Highway Guidelines*, pp. 8-10.
2520-005d

E. Substantial evidence supports a fair argument that the Project may result in significant unmitigated impacts from noise

According to Mr. Cashen, noise levels beyond ambient conditions can interfere with wildlife within the vicinity of the Project site.¹⁸¹ Noise generated by construction activities has the potential to disrupt wildlife and otherwise reduce fitness through injury (e.g., hearing loss), energy loss (from movement away from noise source), reduction in food intake and habitat avoidance and abandonment.¹⁸² The MND does not contain any analysis of the Project's noise impacts to sensitive wildlife species, nor any mitigation measures that specifically address this potential impact. A fair argument, therefore, exists that construction noise from Project activities may cause a significant impact to sensitive wildlife species.

F. Substantial evidence supports a fair argument that the Project may result in significant unmitigated cumulative impacts to aesthetic resources, agricultural resources, water resources and biological resources

A lead agency is required to find that a project has a significant effect on the environment when there is substantial evidence that the project has possible environmental effects that are individually limited but cumulatively considerable.¹⁸³ "Cumulatively considerable" is defined as the incremental effects of an individual project that are considered significant when viewed in connection with the effects of past projects, other current projects, and probable future projects.¹⁸⁴ If a lead agency finds that a project has a significant, unmitigated impact, it is required to review that impact in an EIR.

As discussed in this comment letter, the Project may have significant impacts on designated aesthetic areas, important farmland, scarce regional water supplies and protected and sensitive biological resources. These significant impacts may become even more significant when viewed in connection with past, current and

¹⁸¹ Cashen Comments, p. 15.

¹⁸² *Ibid.*

¹⁸³ CEQA Guidelines, § 15065, subd. (a)(3).

¹⁸⁴ *Ibid.*

2520-005d

reasonably foreseeable future projects. When these projects are considered with the County's other pending industrial, commercial and residential projects in the same region, the impacts may be even greater.¹⁸⁵ For example, the County just approved the Scatec Westside Solar Ranch, which is approximately 1-2 miles south of the Project site. The MND does not even mention the Scatec Westside Solar Ranch, however, or assess any of the Project's impacts in light of the aesthetic, agricultural, water and biological resources impacts identified in the Scatec Westside Solar Ranch MND.

Despite the large number of past, present and foreseeable projects in the same region, the County's MND concluded that the Project would have a less-than-significant cumulative impact because air impacts would be mitigated.¹⁸⁶ This conclusion completely ignores the Project's numerous potentially significant impacts to aesthetic, agricultural, water and biological resources. Thus, the County must conduct an adequate cumulative impacts analysis and include it in an EIR prepared for the Project. An adequate analysis would include a list of past, current and reasonably foreseeable future projects such as those identified in this letter. It would also include an analysis of the Project's cumulative impacts on aesthetics, agricultural, biological, water and other impacted resources and a conclusion that is based on substantial evidence. Currently, a fair argument clearly exists that the Project may result in significant cumulative impacts on the environment.

VI. THE MND IMPROPERLY DEFERS THE IDENTIFICATION AND INCORPORATION OF MITIGATION MEASURES

CEQA requires that mitigation measures be adequate, timely and resolved by the lead agency. The environmental review must identify mitigation measures for each significant impact.¹⁸⁷ The mitigation conditions must be fully enforceable through permit conditions, agreements or other legally binding instruments.¹⁸⁸ A lead agency is precluded from making the required CEQA findings unless the record shows that all uncertainties regarding the mitigation of impacts have been resolved;

¹⁸⁵ This letter incorporates all of the environmental review documents for the projects that are listed on Stanislaus County's website.

¹⁸⁶ MND, p. 3-74.

¹⁸⁷ CEQA Guidelines, § 15126.4, subd. (a)(1)(A).

¹⁸⁸ CEQA Guidelines, § 15126.4, subd. (a)(2).

an agency may not rely on mitigation measures of uncertain efficacy or feasibility.¹⁸⁹ This approach helps “insure the integrity of the process of decision by precluding stubborn problems or serious criticism from being swept under the rug.”¹⁹⁰

A lead agency may prepare a mitigated negative declaration only when “[r]evisions in the project plans or proposals made by, or agreed to by the applicant before a proposed mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where *clearly* no significant effects would occur and there is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment.”¹⁹¹ Where a mitigated negative declaration is proposed, CEQA requires that the lead agency set forth mitigation measures for all potentially significant impacts in the negative declaration itself. Project modifications necessary to avoid significant impacts must be made *before* the lead agency issues a proposed negative declaration for public review.¹⁹² Mitigation measures adopted *after* project approval cannot validate the issuance of a negative declaration because this deferral denies the public the opportunity to comment on the project as modified to mitigate impacts.¹⁹³

In addition, deferral of the formulation of mitigation measures to post-approval studies is generally impermissible.¹⁹⁴ An agency may only defer the formulation of mitigation measures when it “recognizes the significance of the potential environmental effect, commits itself to mitigating the impact, and articulates specific performance criteria for the future mitigation.”¹⁹⁵ “A study conducted after approval of a project will inevitably have a diminished influence on

¹⁸⁹ *Kings County Farm Bur. v. County of Hanford* (1990) 221 Cal.App.3d 692, 727-728 (groundwater purchase agreement found to be inadequate mitigation because there was no record evidence that replacement water was available.)

¹⁹⁰ *Concerned Citizens of Costa Mesa, Inc. v. 32nd Dist. Agricultural Assn.* (1986) 42 Cal.3d 929, 935 (citations omitted).

¹⁹¹ CEQA Guidelines, § 15070, subd. (b) (emphasis added).

¹⁹² Pub. Resources Code, § 21064.5.

¹⁹³ *Gentry v. County of Murrieta* (1995) 36 Cal.App.4th 1359, 1393.

¹⁹⁴ *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 308-09; see also CEQA Guidelines, § 15126.4, subd. (a)(1)(B).

¹⁹⁵ *Gentry, supra*, 36 Cal.App.4th at 1411 citing *Sacramento Old County Assn. v. County Council* (1991) 229 Cal.App.3d 1011, 1028-29.

decision-making. Even if the study is subject to administrative approval, it is analogous to the sort of post hoc rationalization of agency actions that has been repeatedly condemned in decisions construing CEQA.”¹⁹⁶ In *Sundstrom*, the mitigation scheme was also found improper because it proposed to allow the applicant himself, subject only to planning staff approval, to conduct the analysis and to formulate the mitigation measures.¹⁹⁷ Deferral of mitigation is impermissible, in other words, if it removes the agency from its decision-making role.

The County improperly deferred preparation of a Phase II ESA to an unspecified time. The County’s deferral is improper because there is no evidence that requiring the Applicant to prepare a Phase II ESA at an unspecified time will reduce the Project’s impacts to a less-than-significant level. Deferral of the Phase II ESA serves only to sweep stubborn problems associated with contaminants in the soil “under the rug.”

The Phase I ESA identified soil staining near the fueling station and noted that fuel could seep into the ground and into the groundwater. To reduce the impact of seep risk, the MND requires the Applicant to prepare a Phase II ESA “that will set forth how to safely remove stained soil identified at the existing on-site fueling station prior to the construction of the solar energy farm.”¹⁹⁸ This mitigation measure fails to specify when the Applicant must prepare a Phase II ESA and any specific performance standards that will ensure that impacts associated with the soil stains will be avoided or reduced.

For example, the Applicant may prepare the Phase II ESA prior to the construction of the fifth phase and still be in compliance with the mitigation measure, which may be interpreted as only requiring preparation of the Phase II ESA before construction of the *entire* solar energy farm. In addition, there may be a difference of opinion regarding “how to safely remove stained soil.” The public must be allowed to comment on the procedures necessary to reduce the Project’s impacts, and decision-makers must have enough information to make an intelligent decision. Currently, there is no guarantee that construction workers and onsite

¹⁹⁶ *Sundstrom*, *supra*, 202 Cal.App.3d at 307.

¹⁹⁷ *Id.* at 302-08.

¹⁹⁸ MND, p. 3-47.
2520-005d

personnel will not be exposed to toxic contaminants in the Project soil even after preparation of the Phase II ESA.

In addition, the MND only requires the Phase II ESA to set forth how to safely remove “stained soil.” As discussed above, however, the MND did not disclose the presence of a plugged well, as well as residual pesticides on the Project site. Because the Phase II ESA is only required to remedy impacts associated with the fueling station, there is no guarantee that impacts associated with the plugged well and residual pesticides will be reduced to a less-than-significant level.

The County must provide specific, enforceable mitigation measures before concluding that the Project’s impacts to public health are less than significant. Currently, there is no evidence in the record that Project personnel will not be exposed to harmful contaminants associated with the fueling station, plugged well and pesticide use. Thus, the County must prepare an EIR that discloses this potentially significant impact and provides all feasible mitigation measures.

VII. THE COUNTY DOES NOT RECOGNIZE THE ADDITIONAL FEDERAL AND STATE REQUIREMENTS BEFORE PROJECT APPROVAL

Under CEQA the project description must contain a statement describing the intended uses of the MND. This statement must include “[a] list of related environmental review and consultation requirements required by federal, state, or local laws, regulations, or policies.”¹⁹⁹ Depending on the jurisdictional delineation and the federal species impacted by the Project, the Project may need to be reviewed by the USFWS and/or the United States Army Corps of Engineers under NEPA. The Project may also need to be reviewed by the Regional Water Quality Control Board and/or the CDFG if impacts to State-listed species and/or State waters will occur. The MND failed to describe these potential requirements.

The County has a duty under CEQA to cooperate with the USFWS or Corps to the fullest extent possible to reduce duplication of the agencies’ time and

¹⁹⁹ CEQA Guidelines, § 15124, subd. (d)(1)(C).
2520-005d

Rachel Wyse
Stanislaus County Planning
and Community Development
January 3, 2011
Page 45

resources.²⁰⁰ Because the USFWS or the Corps may need to issue an Environmental Impact Statement for the Project, the County should work with the USFWS or the Corps to reduce duplication of the agencies' time and resources.

VIII. CONCLUSION

We appreciate this opportunity to comment and appreciate the County considering our views. As indicated earlier, we will continue to evaluate the Project and the MND's analysis and will bring any additional issues we identify to the County's attention.

Sincerely,



Robyn C. Purchia

RCP:cnh
Attachments

cc: Thomas E. Boze, Deputy Counsel (w/out attachments)

Attachments:

Attachment A: Scott Cashen Comments
Attachment B: Matt Hagemann Comments
Attachment C: Letter from Thomas Boze
Attachment D: Boulevard Associates WSA
Attachment E: LightSource Renewables WSA
Attachment F: Seely, *Some Observations on Photovoltaic Cell Panels*
Attachment G: Tavares, *Dirty Detail*
Attachment H: Scatec Westside Solar Ranch, Conditions of Approval
Attachment I: Lost Hills Solar Air Quality Assessment
Attachment J: CARB, Ambient Air Quality Standards

²⁰⁰ CEQA Guidelines, § 15226.
2520-005d

Rachel Wyse
Stanislaus County Planning
and Community Development
January 3, 2011
Page 46

Attachment K: Hydrology Study Lucerne Solar Project
Attachment L: NRCS Planning and Design Manual
Attachment M: Margaret, *Chico, CA: hotbed of solar crime*
Attachment N: *90 Solar Panels Stolen from California Water Treatment Plant*
Attachment O: Dorgan, *Solar Panels Stolen*
Attachment P: Galbraith, *Solar Panels are Vanishing, Only to Reappear on the Internet*
Attachment Q: JKB Energy, Plot Plan
Attachment R: Solar Energy Decommissioning
Attachment S: CDFG Protocol
Attachment T: Letter from California Department of Fish and Game
Attachment U: Environmental Protection Agency, DDE
Attachment V: Human Health Hazards Lead Arsenate Pesticides in Soil
Attachment W: American Farmland Trust, *The Future is Now*
Attachment X: Scenic Highway Guidelines

Attachments Available Upon Request

SUMMARY OF RESPONSES FOR ENVIRONMENTAL REVIEW REFERRALS

PROJECT: USE PERMIT APPLICATION NO. 2010-03 - FINK ROAD SOLAR FARM

REFERRED TO:	RESPONDED			RESPONSE			MITIGATION MEASURES		CONDITIONS			
	2 WK	30 DAY	PUBLIC HEARING NOTICE	YES	NO	WILL NOT HAVE SIGNIFICANT IMPACT	MAY HAVE SIGNIFICANT IMPACT	NO COMMENT NON CEQA	YES	NO	YES	NO
AGRICULTURE COMMISSIONER	X	X			X							
AIRPORT LAND USE COMMISSION	X	X			X							
ALLIANCE	X	X	X		X							
BUILDING PERMITS DIVISION	X	X		X		X				X	X	
CALTRANS DISTRICT 10	X	X	X	X			X		X			X
CEMETERY DISTRICT: PATTERSON	X	X	X		X							
CHIEF EXECUTIVE OFFICE	X	X			X							
CITY OF: NEWMAN & PATTERSON	X	X	X		X							
COOPERATIVE EXTENSION	X	X			X							
CORPS OF ENGINEERS	X	X	X	X		X				X	X	
COUNTY COUNSEL	X	X			X							
DEPT OF FORESTRY: DEL PUERTO	X	X	X	X		X				X	X	
ENVIRONMENTAL RESOURCES	X	X		X		X				X	X	
FIRE PROTECTION DIST: W. STAN	X	X	X	X		X				X	X	
FISH & GAME, DEPT OF	X	X	X	X			X		X			X
HAZARDOUS MATERIALS	X	X			X							
HOSPITAL DISTRICT: DEL PUERTO	X	X	X		X							
LAFCO	X	X	X		X							
MOSQUITO DISTRICT: TURLOCK	X	X			X							
MT VALLEY EMERGENCY MEDICAL	X	X	X		X							
NATURAL RESOURCES CONSERVATION	X	X	X		X							
PACIFIC GAS & ELECTRIC	X	X			X							
PUBLIC WORKS	X	X		X		X			X		X	
PUBLIC WORKS - TRANSIT	X	X	X		X							
REGIONAL WATER QUALITY CONTROL	X	X	X	X		X				X	X	
RISK MANAGEMENT	X	X	X		X							
SAN JOAQUIN VALLEY APCD	X	X	X	X			X		X		X	
SCHOOL DISTRICT 1: NEWMAN-CROWS LANDING / MARSHALL B. KRUPP	X	X	X		X							
SHERIFF	X	X			X							
STANISLAUS COUNTY FARM BUREAU	X	X	X		X							
STANISLAUS ERC	X	X		X		X						
STANISLAUS FIRE PREVENTION BUREAU	X	X		X		X				X		X
STATE CLEARINGHOUSE	X	X	X	X								
SUPERVISORIAL DISTRICT 5: DeMARTINI	X	X			X							
SURROUNDING LAND OWNERS			X									
TELEPHONE COMPANY: FRONTIER	X	X	X		X							
TRIBAL CONTACTS	X	X	X		X							
UNITED STATES MILITARY AGENCIES (SB 1462) (5 agencies)	X	X	X		X							
US FISH & WILDLIFE	X	X	X	X			X		X		X	X
WATER DISTRICT: OAK FLAT & DEL PUERTO	X	X	X		X							
WATER RESOURCES, DEPT OF	X	X	X		X							

- B. USE PERMIT APPLICATION NO. 2010-03 – FINK ROAD SOLAR FARM – *Continued from March 15, 2012.*** Request to establish an 80-100 megawatt solar farm on 800± acres of a 1,687± acre site in the A-2-40/A-2-160 (General Agriculture) zoning district. The project site is located at 4401/4881 Fink Road, west of I-5, in the Newman/Crows Landing area. The Planning Commission will consider a CEQA Mitigated Negative Declaration on this project.
APN: 025-012-016, 017, 031, 033 and 027-033-012
Staff Report: Rachel Wyse Recommends **APPROVAL**.
Public hearing opened.
OPPOSITION: No one spoke.
FAVOR: Mike Warda, 2350 W. Monte Vista Avenue, Turlock, CA.
Public hearing closed.
Gammon/Etchebarne, 5-0 (Unanimous), **APPROVED THE STAFF RECOMMENDATIONS AS OUTLINED IN THE STAFF REPORT DATED MARCH 1, 2012, AND THE MEMO DATED APRIL 19, 2012, INCLUDING REVISED MITIGATION MEASURE NO. 4 (CONDITION OF APPROVAL NO. 32) AND ADDITIONAL FINDING 3E**

EXCERPT

PLANNING COMMISSION MINUTES

Signature on file.

Secretary, Planning Commission

April 19, 2012

Date