



**YOLO COUNTY  
DEPARTMENT OF COMMUNITY SERVICES**

**INITIAL STUDY / MITIGATED NEGATIVE DECLARATION  
ZONE FILE # 2019-0035**

**MATCHBOOK MEDIUM SOLAR PROJECT  
USE PERMIT**

SEPTEMBER 2020

## Initial Study/Mitigated Negative Declaration

1. **Project Title:** Zone File #2019-0035 (Matchbook Solar Project Use Permit)
2. **Lead Agency Name and Address:**  
 Yolo County Department of Community Services  
 292 West Beamer Street  
 Woodland, CA 95695
3. **Contact Person, Phone Number, E-Mail:**  
 JD Trebec, Senior Planner  
 (530) 666-8036  
[Jd.trebec@yolocounty.org](mailto:Jd.trebec@yolocounty.org)
4. **Project Location:** The project is located in the Dunnigan Hills region of the unincorporated county approximately 2.5 miles northeast of CR-19 and I-505.
5. **Project Sponsor's Name and Address:**  
 Curtis Ingersoll  
 JKB Energy  
 941 East Monte Vista Ave  
 Turlock, CA 95382
6. **Land Owner's Name and Address:**  
 Dunnigan Hills Ranch  
 PO Box 493  
 Zamora, CA 95698
7. **General Plan Designation(s):** Agriculture (AG)
8. **Zoning:** Agricultural Extensive (A-X)
9. **Description of the Project:** See attached "Project Description" on the following pages.

**10. Surrounding Land Uses and Setting:**

Relation to Project	Land Use	Zoning	General Plan Designation
Project Site	Rangeland/Vineyard	Agricultural Extensive(A-X)	Agriculture (AG)
North	Rangeland/Vineyards	Agricultural Extensive (A-X)	Agriculture (AG)
South	Vineyards	Agricultural Extensive (A-X)	Agriculture (AG)
East	Rangeland	Agricultural Extensive (A-X)	Agriculture (AG)
West	Vineyards	Agricultural Extensive (A-X)	Agriculture (AG)

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**11. Other public agencies whose approval is required:** Yolo County Building Division; Public Utilities Commission

**12. Other Project Assumptions:** The Initial Study assumes compliance with all applicable State, Federal, and local codes and regulations including, but not limited to, County of Yolo Improvement Standards, the California Building Code, the State Health and Safety Code, and the State Public Resources Code. The project is reviewed and analyzed under the County's Code of Zoning Ordinances; particularly, the Small and Medium Solar Energy Systems Ordinance. The ordinance sets forth development standards for permitting such facilities (Yolo County Code Section 8-2.1104). Medium-sized solar energy systems between 2.5 and 30 acres in area located on Williamson Act contracted land require a Minor Use Permit.

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## Project Description

The proposed project is a request for a Minor Use Permit to construct a Medium Solar Energy Facility that will serve the existing Matchbook Wine Company vineyards and facility. The project will cover 3.28 acres of an approximately 125-acre parcel (049-010-016) with an underground line running west to an adjacent parcel (049-010-017) to power irrigation pumps providing water to vineyards. The facility would also connect to the existing power lines that run through the site so that excess energy produced by the facility could offset energy used by the winery, which is approximately one mile north. The eastern parcel, which is the site of the solar array, is undeveloped, hilly grassland and the western parcel is vineyards. Both parcels are under Williamson Act Contracts.

The solar facility would consist of photovoltaic (PV) panels arranged in fourteen east-west rows within an area approximately 383 feet wide and 419 feet long. The rows would be fifteen feet apart with a 20-foot road around the circumference of the arrays and between the two center rows. The panels, which are dark in color, non-reflective, and designed to be highly absorptive of light, would be mounted on a metal frame less than seven feet high. The steel support posts would be driven up to eight feet deep. Access to the solar facility would come from County Road 17 by means of a proposed 20-foot wide Emergency Vehicle Access road running approximately 0.85 mile from CR 17 to the solar facility. Approximately 1,100 feet of underground electrical line would connect the solar array to the electrical equipment area on the western parcel. No excavation is proposed other than trenching for the underground electrical lines.

Matchbook Wine Company will be enrolling in the Net Energy Metering (NEM) Program through PG&E. Through the NEM Program, when the proposed solar project produces more power than is instantaneously being used by the irrigation pumps, it will be counted as credit to Matchbook Wine Company. At the end of the year, the business would receive a “true up” bill which will compare the energy produced by the solar project with the energy that the irrigation pumps consumed over the course of the year, and then PG&E would bill Matchbook Wine Company for the difference. The NEM Program does not incentivize oversizing solar systems (i.e., producing more energy than is consumed on-site). The consumer (Matchbook Wine Company) is not paid/credited for any excess energy produced that is not used on-site. The system is 1.95 megawatts DC. Approximately 1.38 megawatts or 70 percent of the energy produced would be used to power the irrigation pumps.

The project property and all the adjacent parcels are designated Agriculture (AG) in the 2030 Countywide General Plan and zoned Agricultural Extensive (A-X). A-X zoning is intended for larger parcels with less intensive agricultural operation such as grazing and livestock operations and dryland farming; though, in much of the region, such as the surrounding vicinity, grazing land has been converted to permanent crops such as vineyards and orchards. The parcels to the south and west are vineyards and the parcels to the west and north are mainly hilly grassland. The California Department of Conservation’s Farmland Mapping and Monitoring Program designates the project parcels as grazing land and farmland of local importance. The Project parcels and all the neighboring parcels are under Williamson Act contract(s). The applicant is not proposing changes to the existing uses on the remainder of the parcels. The closest development is the winery itself, which is approximately 0.8 miles north of the proposed array site. There are no residences within a mile of the site.

The project site occurs at the southern edge of the Dunnigan Hills. The proposed solar array site is an open grassland field of non-native weedy species. Dominant species identified in the biological inventory include medusahead grass (*Taeniatherum caput-medusae*), soft brome (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*), and perennial ryegrass (*Lolium perenne*). Other grassland species such as long beaked filaree (*Erodium botrys*), black mustard (*Brassica nigra*), prickly lettuce (*Lactuca serriola*), yellow star-thistle (*Centaurea solstitialis*), and Canada horseweed (*Erigeron canadensis*) are intermixed with the grasses.

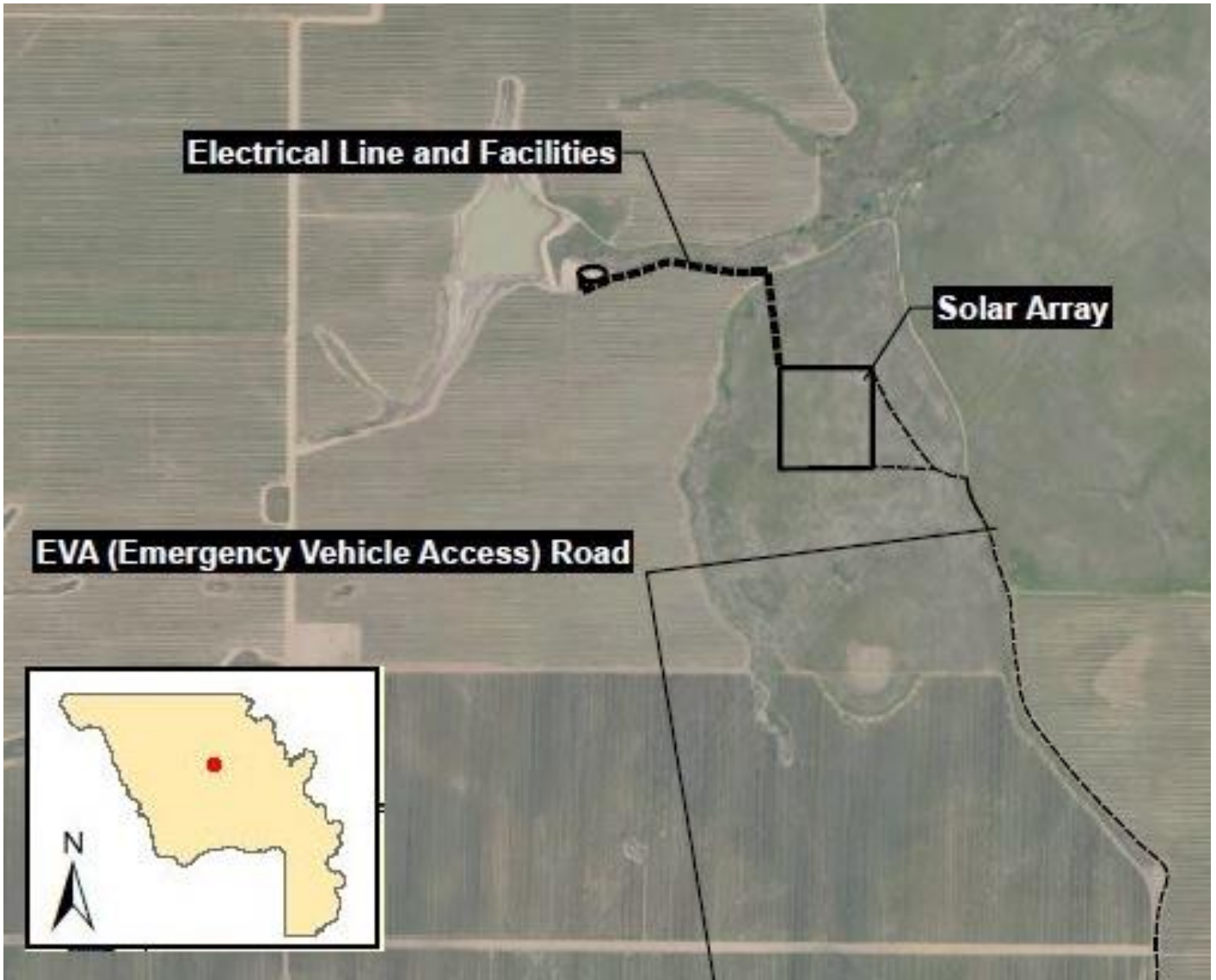
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There are no trees at the project site, but a few willows (*salix* sp.) and cottonwoods (*Populus fremontii*) occur along an ephemeral drainage to the north. The proposed project site is approximately 600 feet from this drainage. The biological inventory conducted by Moore Biological Consultants notes a couple other intermittent swales and drainages in and around the project area noting that the buried electrical line will be daylighted to pass above one drainage and the Emergency Vehicle Access makes use of an existing culvert to cross another drainage.

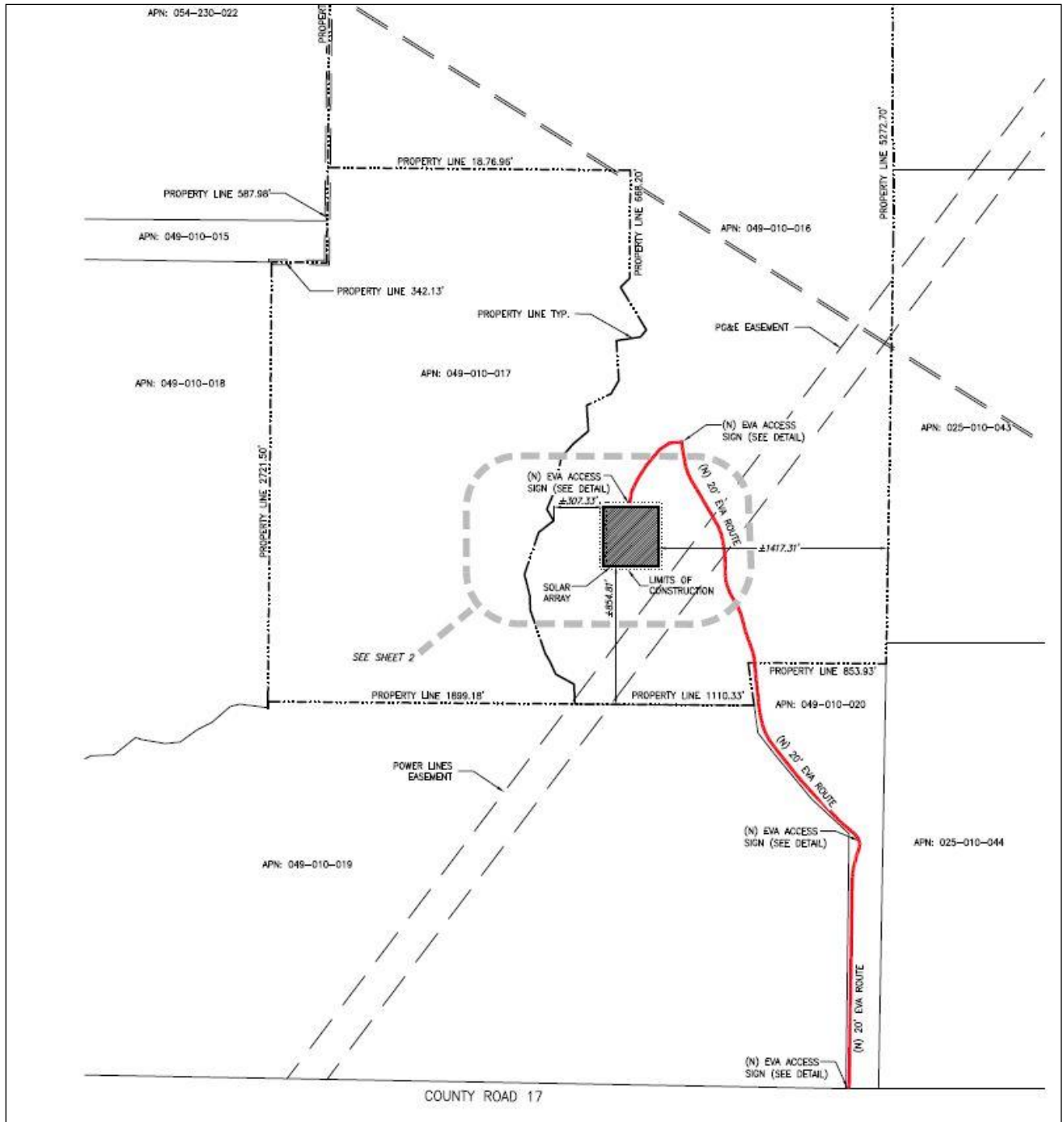
Construction of the project is anticipated to last up to eight weeks and will include use of several pick-ups, two gradalls, and a small backhoe for trenching. Four semi-truck trips would be needed to deliver the modules and racking equipment at the start of construction. Maintenance consists of washing the panels twice a year.

An early agency review conducted for the project elicited a response from the Yocha Dehe Wintun Nation's Tribal Historic Preservation Officer who indicated the Tribe had a cultural interest in the project area. Although there are no identified cultural sites at the project site, the possibility for unearthing undiscovered resources during ground disturbing activities is present. The Tribe recommended cultural sensitivity training for all members of the construction team and pre-project personnel along with standard protective measures. In addition to coordinating with Yocha Dehe, the County sent out an invitation for consultation to the Wilton Rancheria, Cortina Rancheria Band of Wintun Indians of California, Lone Band of Miwok Indians, and the Torres Martinez Desert Cahuilla Indians, but received no other responses.

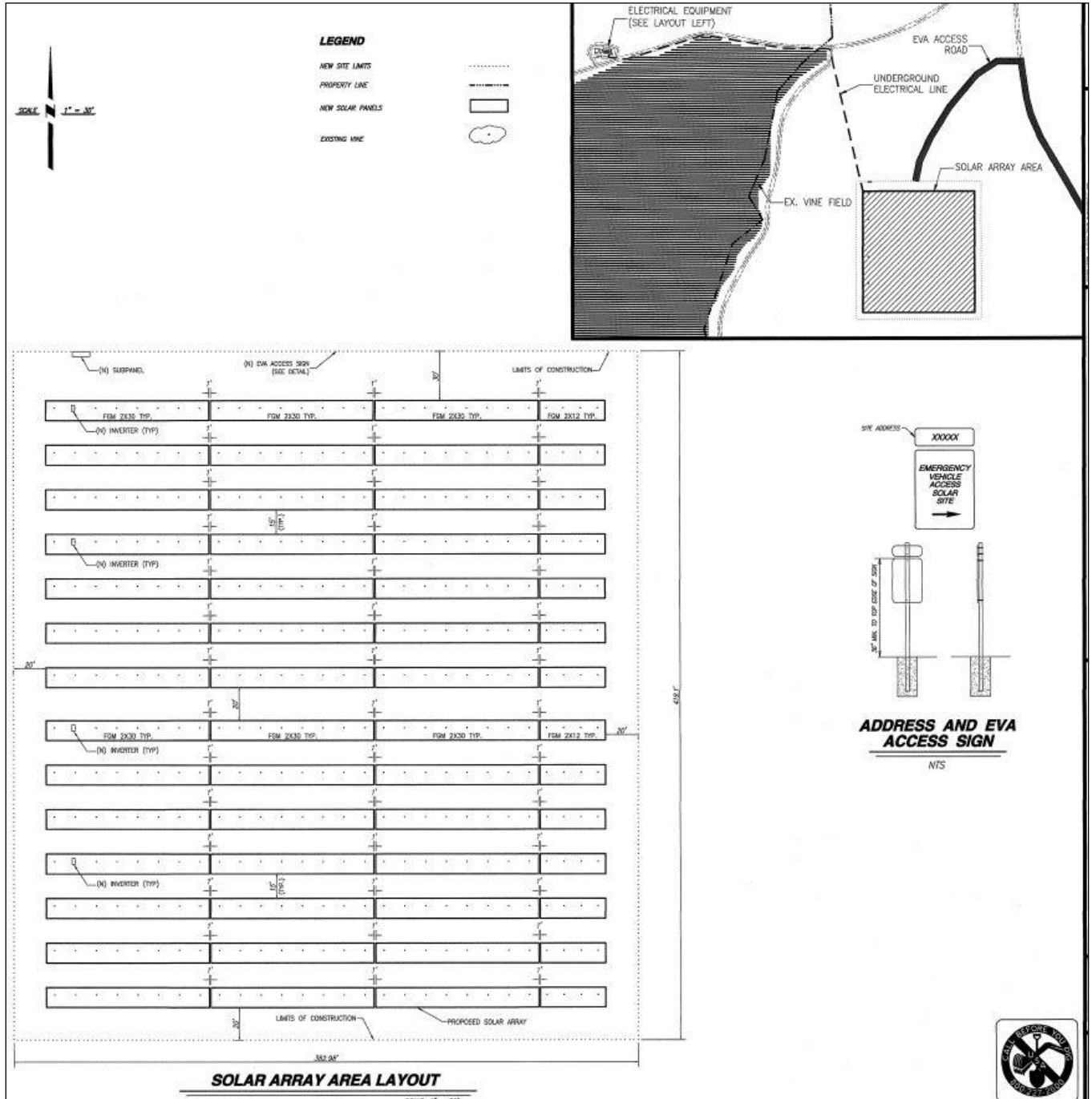
**Figure 1**  
Aerial View of Project Site



## Figure 2 Vicinity Map



**Figure 3**  
**Site Plan**





## Environmental Factors Potentially Affected

The environmental factors checked below could potentially be affected by this project, involving at least one impact that is a "Potentially Significant Impact" (before any proposed mitigation measures have been adopted or before any measures have been made or agreed to by the project proponent) as indicated by the checklist on the following pages.

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> Aesthetics                      | <input type="checkbox"/> Agricultural and Forestry Resources | <input type="checkbox"/> Air Quality                        |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources       | <input type="checkbox"/> Energy                             |
| <input type="checkbox"/> Geology/Soils                   | <input type="checkbox"/> Greenhouse Gas Emissions            | <input type="checkbox"/> Hazards & Hazardous Materials      |
| <input type="checkbox"/> Hydrology / Water Quality       | <input type="checkbox"/> Land Use / Planning                 | <input type="checkbox"/> Mineral Resources                  |
| <input type="checkbox"/> Noise                           | <input type="checkbox"/> Population / Housing                | <input type="checkbox"/> Public Services                    |
| <input type="checkbox"/> Recreation                      | <input type="checkbox"/> Transportation                      | <input type="checkbox"/> Tribal Cultural Resources          |
| <input type="checkbox"/> Utilities / Service Systems     | <input type="checkbox"/> Wildfire                            | <input type="checkbox"/> Mandatory Findings of Significance |

### Determination

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I 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 to 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.
- I find that the proposed project MAY have an impact on the environment that is "potentially significant" or "potentially significant unless mitigated" 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.
- I find that although the proposed project could have a significant effect on the environment, because the project is consistent with an adopted general plan and all potentially significant effects have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT, the project is exempt from further review under the California Environmental Quality Act under the requirements of Public Resources Code section 21083.3(b) and CEQA Guidelines Section 15183.

  
Planner's Signature

8/28/2020  
Date

JD Trebec  
Planner's Printed name

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## Purpose of this Initial Study

This Initial Study has been prepared consistent with CEQA Guideline Section 15063, to determine if the project as described herein may have a significant effect upon the environment.

### 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 if 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, 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 when the incorporation of mitigation measures has reduced an effect from a “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 “Earlier Analyses”, as described in (5) below, 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

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previously prepared or outside document should, when 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 measures identified, if any, to reduce the impact to less than significance

I.	AESTHETICS.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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 along a scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c.	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d.	Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## DISCUSSION

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

**Less than Significant Impact.** For purposes of determining significance under CEQA, a “scenic vista” is defined as a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public. There are no officially designated scenic vistas near the project area; the site is located on sparsely populated lands in the Dunnigan Hills. The project footprint will be set back approximately 3,000 feet from County Road 17, the nearest public right-of-way. Scenic vistas would not be obstructed by the proposed changes to the property and aesthetic impacts would be considered less than significant.

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

**No Impact.** There are no officially designated scenic highways near the project area. The closest County-designated scenic roadway is State Route 16 from Capay to the Colusa county line, which begins over 7 miles southwest of the project site as the crow flies. There would be no impact to scenic resources along a scenic highway.

### c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings?

**Less than Significant Impact.** See discussion in (a), above. The proposed Project would be located on sparsely populated lands in the Dunnigan Hills. The project footprint would be over 0.5 mile from County Road 17, the nearest public right-of-way. The potential impact to the visual character would be considered less than significant.

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

**Less than Significant Impact.** Although made of a silica material, the panels are dark in color, non-reflective, and designed to be highly absorptive of light. Therefore, they would not be a source of significant glare and would not be lit at night so as to present a less than significant source of light or glare.

<b>II. AGRICULTURE AND FOREST RESOURCES.</b>	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
<p>In determining whether impacts on agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation. 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 the forest carbon measurement methodology provided in the Forest Protocols adopted by the California Air Resources Board. 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 type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with existing zoning for agricultural use or conflict with 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)) or timberland (as defined in Public Resources Code section 4526)?	<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 that, 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"/>

## 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?**

**No Impact.** Soils within the project site are identified as Sehorn-Balcom complex (SmD), Sehorn clay (SkD), and Corning gravelly loam (CtD2) all with 2 to 15 percent slopes. These soils are identified as well-drained with slow to medium runoff and a slight to moderate erosion hazard by the U.S. Soil Conservation Service *Soil Survey of Yolo County*. The project site is designated as "Grazing Land" and "Farmland of Local Importance" on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. There is "Farmland of

Statewide Importance” to the west of the project, but the project would facilitate irrigating these lands and they would not be converted to non-agricultural use by the project.

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

**Less than Significant Impact.** The proposed project is located on A-X (Agricultural Extensive) zoned property in the Dunnigan Hills. The surrounding area consists of annual grasslands used for livestock grazing to the east and vineyards to the south and west. The project site and surrounding lands are under Williamson Act contracts. Yolo County Code Section 8-2.404 Agricultural Conservation and Mitigation Program typically requires permanent protection of a greater amount of farmland to mitigate development for non-agricultural use, but provides that medium-sized solar projects used to generate energy solely for agricultural equipment, such as irrigation pumps, may be excluded from the requirements. Approximately 70 percent of the energy produced by the proposed Project will go directly to power irrigation pumps and the rest will offset wine production at the adjacent winery so as to support agricultural uses. Therefore, the project is expected to have a less than significant impact on agricultural zoning or the Williamson Act contract.

**c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined in Public Resources Code section 4526)?; and**

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

**No Impact.** The region consists of grasslands with no forest or timber resources. Therefore, the proposed solar energy facility project would not conflict with existing zoning for, or cause rezoning of, or result in the loss or conversion of forest or timberland.

**e) Involve other changes in the existing environment that, 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?**

**Less than Significant Impact.** As discussed above, there are no forest lands in the region. The project is shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency as “Grazing Land” and “Farmland of Local Importance.” Land to the west is identified as Farmland of Statewide Importance. The majority of the development would occur on barren, unused grassland and any impacts to agricultural resources would be considered less than significant.

III. AIR QUALITY.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Where applicable, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area under an applicable Federal or State ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

III.	AIR QUALITY.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c.	Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d.	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Thresholds of Significance:

The project site is within the Yolo-Solano Air Quality Management District (YSAQMD), and the Sacramento Valley Air Basin regulates air quality conditions within Yolo County. Yolo County is classified as a non-attainment area for several air pollutants, including ozone (O<sub>3</sub>) and particulate matter 10 microns or less in diameter (PM<sub>10</sub>) for both federal and state standards, the partial non-attainment of the federal particulate matter 2.5 (PM<sub>2.5</sub>), and is classified as a moderate maintenance area for carbon monoxide (CO) by the state.

Development projects are most likely to violate an air quality plan or standard, or contribute substantially to an existing or project air quality violation, through generation of vehicle trips.

For the evaluation of project-related air quality impacts, the YSAQMD recommends the use of the following thresholds of significance:

- **Long-term Emissions of Criteria Air Pollutants (ROG, NO<sub>x</sub>, and PM<sub>10</sub>)**—The criteria air pollutants of primary concern include ozone-precursor pollutants (ROG and NO<sub>x</sub>) and PM<sub>10</sub>. Significance thresholds have been developed for project-generated emissions of reactive organic gases (ROG), nitrogen oxides (NO<sub>x</sub>), and particulate matter of 10 microns or less (PM<sub>10</sub>). Because PM<sub>2.5</sub> is a subset of PM<sub>10</sub>, a separate significance threshold has not been established for PM<sub>2.5</sub>. Operational impacts associated with the proposed project would be considered significant if project-generated emissions would exceed YSAQMD-recommended significance thresholds, as identified below:

Pollutant	Threshold
Reactive Organic Gases (ROG)	10 tons/year (approx. 55 lbs/day)
Oxides of Nitrogen (NO <sub>x</sub> )	10 tons/year (approx. 55 lbs/day)
Particulate Matter (PM <sub>10</sub> )	80 lbs/day
Carbon Monoxide (CO)	Violation of State ambient air quality standard

*Source: Handbook for Assessing and Mitigating Air Quality impacts (YSAQMD, 2007)*

- Emissions of Criteria Air Pollutants (ROG, NO<sub>x</sub>, and PM<sub>10</sub>)—Construction impacts associated with the proposed project would be considered significant if project-generated emissions would exceed YSAQMD-recommended significance thresholds, as identified in Table AQ-1, and recommended control measures are not incorporated.
- Conflict with or Obstruct Implementation of Applicable Air Quality Plan— Projects resulting in the development of a new land use or a change in planned land use designation may result in a significant increase in vehicle miles traveled (VMT). Substantial increases in VMT, as well as, the installation of new area sources of emissions, may result in significant increases of criteria air pollutants that may conflict with the emissions inventories contained in regional air quality control plans. For this reason and given the region’s non-attainment status for ozone and PM<sub>10</sub>, project-generated emissions of ozone precursor pollutants (i.e., ROG and NO<sub>x</sub>) or PM<sub>10</sub> that would exceed the YSAQMD’s recommended project-level significance thresholds, would also be considered to potentially conflict with or obstruct implementation of regional air quality attainment plans.
- Local Mobile-Source CO Concentrations—Local mobile source impacts associated with the proposed project would be considered significant if the project contributes to CO concentrations at receptor locations in excess of the CAAQS (i.e., 9.0 ppm for 8 hours or 20 ppm for 1 hour).
- Toxic Air Contaminants. Exposure to toxic air contaminants (TAC) would be considered significant if the probability of contracting cancer for the Maximally Exposed Individual (i.e., maximum individual risk) would exceed 10 in 1 million or would result in a Hazard Index greater than 1.
- Odors. Odor impacts associated with the proposed project would be considered significant if the project has the potential to frequently expose members of the public to objectionable odors.

## DISCUSSION

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

**No Impact.** The solar energy facility project would not substantially conflict with or obstruct implementation of the Yolo Solano Air Quality Management District Air Quality Attainment Plan (1992), the Sacramento Area Regional Ozone Attainment Plan (1994), or the goals and objectives of the Yolo County 2030 Countywide General Plan.

### b) 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?

**Less than Significant Impact.** The Yolo-Solano Region is a non-attainment area for state particulate matter (PM<sub>10</sub>) and ozone standards, the federal ozone standard, and the partial non-attainment of the federal particulate matter 2.5 (PM<sub>2.5</sub>). Development of the solar energy systems would not contribute significantly to air quality impacts, but could generate some small amount of PM<sub>10</sub> and PM<sub>2.5</sub>, during grading and construction activities to develop the project. To address the potential for short-term impacts related to grading and construction activities, standard dust and emissions control measures which are recommended by the Yolo Solano Air Quality Management District will be attached as Conditions of Approval to the Use Permit, and include the following best environmental practices:



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To reduce tailpipe emissions from diesel-powered construction equipment, all applicable and feasible measures would be implemented, such as:

- Maximizing the use of diesel construction equipment that meet CARB's 2010 or newer certification standard for off-road heavy-duty diesel engines;
- Using emission control devices at least as effective as the original factory-installed equipment;
- Substituting gasoline-powered for diesel-powered equipment when feasible;
- Ensuring that all construction equipment is properly tuned and maintained prior to and for the duration of onsite operation; and
- Using Tier 4 engines in all construction equipment, if available.

To reduce construction fugitive dust emissions, the following dust control measures would be implemented:

- Water all active construction sites at least twice daily in dry conditions, with the frequency of watering based on the type of operation, soil, and wind exposure;
- Effectively stabilize dust emissions by using water or other approved substances on all disturbed areas, including storage piles, which are not being actively utilized for construction purposes;
- Prohibit all grading activities during periods of high wind (over 20 miles per hour);
- Limit onsite vehicle speeds on unpaved roads to 15 miles per hour;
- Cover all trucks hauling dirt, sand, or loose materials;
- Cover inactive storage piles;
- Post a publicly visible sign with the telephone number and person to contact regarding dust complaints; and
- Limit the area under construction at any one time.

Development projects are considered cumulatively significant by the YSAQMD if: (1) the project requires a change in the existing land use designation (i.e., general plan amendment, rezoning); and (2) projected emissions (ROG, NO<sub>x</sub>, or PM<sub>10</sub> and PM<sub>2.5</sub>) of the project are greater than the emissions anticipated for the site if developed under the existing land use designation. The project is a 3.5 acre solar array with access road and underground electrical line connecting to a PG&E substation. The project would not result in significant projected emissions. Medium-sized solar energy facilities are conditionally permitted uses on Williamson Act contracted land.

The project is proposed to be constructed in approximately eight weeks, at the most. Equipment used to develop the site will include two gradalls, a small backhoe, and a couple of pickup trucks. Four semi-trailer trips will be required to bring materials to the site. Temporary project construction emissions could contribute to levels that exceed State ambient air quality standards on a cumulative basis, contributing to existing nonattainment conditions, when considered along with other construction projects. Construction of the project is short-term and is only expected to add up to two additional truck trips per day to develop the site. By implementing the above emission reduction steps as Conditions of Approval, potential for construction-related emissions for the proposed project would result in less than significant levels.

Long-term mobile source emissions from the Project would also not exceed thresholds established by the Yolo-Solano Air Quality Management District Handbook (2007) and would not be cumulatively considerable for any non-attainment pollutant from the project. The unmanned facility would only require occasional maintenance activity up to twice a year. The proposed project would not create a cumulatively considerable net increase of any criteria pollutants.

**c) Expose sensitive receptors to substantial pollutant concentrations?**

**Less than Significant Impact.** The proposed project is located in a remote region of the Dunnigan Hills. "Sensitive receptors" refer to those segments of the population most susceptible to poor air

quality, i.e. children, elderly, and the sick, and to certain at-risk sensitive land uses such as schools, hospitals, parks, or residential communities. The closest residences are located over a mile from the project site.

The project could have the potential to expose nearby sensitive receptors to minimal pollutant concentrations from short-term construction activities. However, dust will be controlled through effective management practices, such as water spraying during construction activity. Thus, short term air quality impacts due to construction activities to implement the project would not have an adverse impact on homes in the area and the proposed project will not expose sensitive receptors to pollutant concentrations in excess of standards.

Long-term impacts would be from an occasional maintenance vehicle, approximately one time per month, at the most, to inspect the facility.

Construction activities to develop the facility will be required to control dust through effective management practices, as noted in b), above.

Air quality impacts to sensitive and other nearby receptors are expected to be less than significant.

**e) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?**

**No Impact.** The proposed solar energy facility will not generate odors or other objectionable emissions.

IV. BIOLOGICAL RESOURCES.		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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 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 U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

IV. BIOLOGICAL RESOURCES.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>

## BIOLOGICAL SETTING

The Biological Site Assessment provided by Moore Biological Consulting describes the project site as an area of gently rolling hills and ranging in elevations of approximately 175 to 225 feet above mean sea level. There are a few seasonal wetland swales and an ephemeral creek in the project vicinity. The solar array will be constructed in an open grassland field on the top of a hill. The electrical alignment will branch off the array to the northwest, extending across open grassland, over a swale, and along a farm road, eventually tying into PG&E facilities at a pump station. Almost all of the Emergency Vehicle Access (EVA) alignment utilizes well-traveled established farm roads along the edges of orchards, vineyards, and grasslands. The final few hundred feet of EVA road that will be constructed between the farm road and the solar array is weedy grassland on a hillside leading up to the array.

## 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 U.S. Fish and Wildlife Service?**

**Less Than Significant with Mitigation Incorporated.** The Biological Site Assessment identified two plant and fourteen animal special-status species occurring within the region. The report found that the two plant species, Heckard's pepper grass (*Lepidium latipes var. heckardii*) and California alkali grass (*Puccinellia simplex*), are unlikely to occur on or near the site as it does not have the alkaline habitat they require. There are no records of occurrence in the immediate vicinity according to the California Natural Diversity Database and no evidence of these species was observed at the project site during the assessment.

Of the animal species, the report lists six birds, one bat, three reptiles and amphibians, one fish, and three invertebrate species as potentially occurring in the region. The bird species include: Swainson's hawk (*Buteo Swainsonii*), Burrowing owl (*Athene cunicularia*), Mountain plover (*Charadrius montanus*), Tri-colored blackbird (*Agelaius tricolor*), Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), and Bank swallow (*Riparia raparia*). The Western red bat

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(*Lasiurus blosseillii*) also potentially occurs in the region. The report found it unlikely that any of these species would occur at the project site due to the low quality of the habitat.

The three reptile/amphibian and fish species: California tiger salamander (*Ambystoma californiense*), California red-legged frog (*Rana aurora draytonii*), Giant garter snake (*Thamnophis gigas*), and Delta smelt (*Hypomesus transpacificus*); and three invertebrates: Vernal pool fairy shrimp (*Branchinecta lynchi*), Vaernal pool tadpole shrimp (*Lepidurus packardii*), and Valley elderberry longhorn beetle (*Democerus californicus dimorphus*) are also considered unlikely to occur in the project area because the site does not contain suitable aquatic habitat for these species.

The Swainson's hawk (*Buteo swainsoni*) is identified as a federal species of concern and listed on the State Endangered Species Act as "threatened." The Swainson's hawk (*Buteo swainsoni*) is a medium-sized raptor associated with generally flat, open landscapes. In the Central Valley it nests in mature native and nonnative trees and forages in grassland and agricultural habitats. Although a state-threatened species, the Swainson's hawk is relatively common in Yolo County due to the availability of nest trees and the agricultural crop patterns that are compatible with Swainson's hawk foraging. Maps provided by the Yolo Habitat Conservancy show parts of the project area identified as natural foraging areas for the Swainson's hawk and an area with several larger trees about a quarter mile to the north of the project site is identified as nesting habitat. The California Natural Diversity Database shows numerous Swainson's hawk nests in the actively row-cropped lands around the Dunnigan Hills that provide a high rodent population for the hawks to consume, but the hilly project site is barren and dry with a sparse rodent population and overgrown with weeds that make prey harder to spot.

The Tricolored blackbird (*Agelaius tricolor*) is a California species of special concern. The tricolored blackbird nests in colonies from several dozen to several thousand breeding pairs. Tricolored blackbirds have not been reported at the project site. There are blackberry thickets and patches of emergent wetland vegetation within the greater project vicinity, but the nearest occurrence is approximately a mile north of the site.

The proposed project is located in a weedy, degraded grassland area that the Moore Biological Consultants report identifies as unremarkable. They identified no sensitive communities at the site and that it did not provide suitable habitat for special-status plants, or critical habitat for any federally listed species. Although the report did not find any evidence of Swainson's hawk activity in the project area, due to the potential nesting sites to the north, a pre-construction survey of nesting birds shall be completed to ensure any new nesting sites in the area are not disturbed. Mitigation Measure BIO-1 Bird Nesting Survey would ensure that there will not be substantial impacts to species listed by the State of California or the US Fish and Wildlife Service.

**MM BIO-1 Bird Nesting Surveys.** If ground disturbing activities occur during the breeding season of migratory avian and raptor species (February through mid-September), surveys for active nests will be conducted by a qualified biologist no more than 10 days prior to start of activities. Pre-construction nesting surveys shall be conducted for nesting migratory avian and raptor species in the Project site and buffer area. Pre-construction biological surveys shall occur prior to the proposed Project implementation, and during the appropriate survey periods for nesting activities for individual avian species. Surveys will follow required CDFW and USFWS protocols, where applicable. A qualified biologist will survey suitable habitat for the presence of these species. If a migratory avian or raptor species is observed and suspected to be nesting, a buffer area will be established to avoid impacts to the active nest site. Identified nests should be continuously surveyed for the first 24 hours prior to any construction-related activities to establish a behavioral baseline. If no nesting avian species are found, Project activities may proceed, and no further Standard Construction Conditions measures will be required. If active nesting sites are found, the following exclusion buffers will be established, and no Project activities will occur within these buffer zones until young birds have fledged and are no longer reliant upon the nest or parental care for survival.

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1. Minimum no disturbance of 250 feet around active nest of non-listed bird species and 250-foot no disturbance buffer around migratory birds
  2. Minimum no disturbance of 500 feet around active nest of non-listed raptor species
  3. One-half mile no disturbance buffer from listed species and fully protected species until breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival
  4. Once work commences, all nests should be continuously monitored to detect any behavior changes as a result of Project activities. If behavioral changes are observed, the work causing that change should cease and the appropriate regulatory agencies (i.e., CDFW, USFWS, etc.) shall be consulted for additional avoidance and minimization measures.

A variance from these no disturbance buffers may be implemented when there is compelling biological or ecological reason to do so, such as when the Project area would be concealed from a nest site by topography. Any variance from these buffers is advised to be supported by a qualified wildlife biologist and is recommended that CDFW and USFWS be notified in advance of implementation of a no disturbance buffer variance.

**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 U.S. Fish and Wildlife Service?; and**

**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, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?**

**No Impact.** The biological assessment does not identify any riparian habitat or other sensitive natural community or federally protected wetlands. It does note that there are drainages in the area, but that they will not be disturbed by the proposed project. The buried electrical line will be daylighted to pass overhead in proximity to a drainage and the existing roadway to serve as the Emergency Vehicle Access crosses another drainage on an existing culvert. Therefore, the project will not impact sensitive communities or protected wetlands.

**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 proposed project is sited on degraded grassland habitat. The project is not expected to alter movement or migratory patterns, breeding or foraging patterns, or affect the distribution or abundance of populations of any plant or wildlife species, including special-status species. Habitat loss and potential effects to special-status species are considered negligible and do not constitute a significant impact pursuant to CEQA guidelines.

**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 other local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. The County does not have any other conservation ordinances, except for a voluntary oak tree preservation ordinance that seeks to minimize damage and require replacement when oak groves are affected by development. The County does have a Habitat Conservation/Natural Communities

Conservation Plan; however, the plan does not cover rural solar projects. The project would not have a significant impact on local policies or ordinances protecting biological resources.

**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 Yolo Habitat Conservancy, a Joint Powers Agency composed of the County, the cities, and other entities, implements the Yolo Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP). The HCP/NCCP coordinates mitigation to benefit 12 sensitive species and conserve habitat. However, the HCP/NCCP does not cover rural solar projects; therefore, this project is not subject to review by the Yolo Habitat Conservancy, and not in conflict with the plan.

V. CULTURAL RESOURCES.		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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 type="checkbox"/>	<input checked="" 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.	Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

**No Impact.** A cultural resources study conducted by Solano Archaeological Services found no historic artifacts, sites, or features at the proposed project site. The project site is not recognized as an historical resource and will not cause an adverse change in the significance of an historical resource.

**b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?**

**Less than Significant with Mitigation Incorporated.** The NAHC sacred lands file search and the NWIC records search were negative for cultural resources in the Project area. A review of the historic maps concluded that the project area had no development other than an access road. An intensive archaeological survey conducted by Solano Archaeological Services identified one pre-contact cultural isolate in secondary context and no other pre-contact artifacts, sites, or features. In addition, no intact cultural materials or midden soils were identified as part of subsurface auger testing within the Project area.

The project site is within the aboriginal territories of the Yocha Dehe Wintun Nation which has a cultural interest and authority in the project area. In a letter dated July 20, 2020, the Yocha Dehe Cultural Resources Department indicated a concern that the project could impact undiscovered archaeological deposits. The Tribe recommended cultural sensitivity training for all members of the construction team and project personnel, which is incorporated in **Mitigation Measure CUL-1**. Impacts to archaeological resources would be less than significant with incorporation of this mitigation measure.

**MM CUL-1 Cultural Sensitivity Training.** Prior to the initiation of construction, all construction and project personnel shall be trained by a representative of the Yocha Dehe Wintun Nation regarding the recognition of possible buried cultural resources (i.e., prehistoric and/or historical artifacts, objects, or features) and protection of cultural resources during construction. Training shall inform all construction personnel of the procedures to be followed upon the discovery of cultural materials or human remains. All personnel shall be instructed that unauthorized removal or collection of artifacts is a violation of State law.

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

**Less than Significant Impact.** No human remains are known or predicted to exist in the project area. However, the potential exists during construction to uncover previously unidentified resources. Section 7050.5 of the California Health and Safety Code states that when human remains are discovered, no further site disturbance shall occur until the county coroner has determined that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendation concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, in the manner provided in Section 5097.98 of the Public Resources Code. If the coroner determines that the remains are not subject to his or her authority and the remains are recognized to be those of a Native American, the coroner shall contact the Native American Heritage Commission within 24 hours to determine the Most Likely Descendant. The requirements will be included in the Conditions of Approval for the proposed project to ensure that impacts to interred human remains are less than significant.

VI. ENERGY	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with or obstruct a state of local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**DISCUSSION**

**a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?**

**No Impact.** Construction of the solar power facility would use fossil fuels to provide energy for the vehicles and equipment required for transport of materials and installation. The energy required for construction would be temporary with construction scheduled for eight weeks. The materials for construction also require energy to manufacture, process, and transport. An underground power line would be installed connecting the array to a PG&E substation and the project proposes minor improvements for Emergency Vehicle Access (EVA). All these are necessary uses of energy to construct the facility. After construction, the facility would be used to power pumps for the adjacent vineyard and offset energy use for the Matchbook Winery.

**b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?**

**No Impact.** The medium-sized solar power facility would further goals and objectives of state and local plans for clean renewable energy.

VII. GEOLOGY AND SOILS.		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:					
a.	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	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 Division of Mines and Geology Special Publication 42.				
	ii. Strong seismic ground shaking?				
	iii. Seismic-related ground failure, including liquefaction?				
	iv. Landslides?				
b.	Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 an on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d.	Be located on expansive soil as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect 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 wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f.	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"/>

**GEOLOGICAL SETTING**



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The proposed project site is in a region of Corning Gravelly loam and Sehorn-Balcom complex soils with slopes of two to fifteen percent. These soils have slow to very slow permeability and variable run off rates that present moderate to high erosion potential.

According to the 2030 Countywide General Plan, the only fault in Yolo County that has been identified by the California Division of Mines and Geology (1997) to be subject to surface rupture (within an Alquist-Priolo Earthquake Fault Zone) is the Hunting Creek Fault, which is partly located in a sparsely inhabited area of the extreme northwest corner of the County. Most of the fault extends through Lake and Napa Counties. The other potentially active faults in the County are the Dunnigan Hills Fault, which extends west of I-5 between Dunnigan and northwest of Yolo, and the newly identified West Valley and East Valley Faults (Fault Activity Map of California, California Geological Survey, 2010), which are also not in the vicinity of the proposed project. These faults are not within an Alquist-Priolo Earthquake Fault Zone, and are therefore not subject to surface rupture.

## DISCUSSION

a) **Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:**

i) **Rupture or 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 Division of Mines and Geology Special Publication 42).**

**No Impact.** The project is not located within an Alquist-Priolo Earthquake Special Study Zone. No landforms are known to be on the project site that would indicate the presence of active faults. Several earthquake fault zones are present within the County, and the above-identified faults are within regional proximity, albeit remote, of the project site. However, surface ground rupture along faults is generally limited to a linear zone a few yards wide. Because the project site is not located within an Alquist-Priolo Earthquake Special Study Zone, ground rupture that would expose people or structures at the facility to substantial adverse effects would not result in any significant impacts.

ii) **Strong seismic ground shaking?**

**No Impact.** Ground shaking occurs as a result of energy released during faulting, which could potentially result in the damage or collapse of buildings and other structures, depending on the magnitude of the earthquake, the location of the epicenter, and the character and duration of the ground motion. Any major earthquake damage on the project site is likely to occur from ground shaking, and seismically related ground and structural failures. Local soil conditions, such as soil strength, thickness, density, water content, and firmness of underlying brock affect seismic response. Although known active seismic sources are located within regional proximity to the project site, damage from seismically induced shaking during a major event should be no more severe in the project area than elsewhere in the region. Any proposed construction would be required to be built in accordance with Uniform Building Code requirements, and will be generally flexible enough to sustain only minor structural damage from ground shaking. Therefore, people and structures would not be exposed to potential substantial adverse effects involving strong seismic ground shaking.

iii) **Seismic-related ground failure, including liquefaction?**

**No 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. Factors determining the liquefaction potential are the level and duration of

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seismic ground motions, the type and consistency of soils, and the depth to groundwater. The site has low slopes and soils with low permeability that present a low risk of liquefaction. Liquefaction poses a hazard to engineered structures, as the loss of soil strength can result in bearing capacity insufficient to support foundation loads. The project includes ground mounted solar arrays, minor road improvements and buried and aboveground power lines is required to comply with all applicable Uniform Building Code and County Improvement Standards requirements to ensure that risks from ground failure would not occur.

**iv) Landslides?**

**No Impact.** A landslide involves the downslope transport of soil, rock, and sometimes vegetative material *en masse*, primarily under the influence of gravity. Landslides occur when shear stress (primarily weight) exceeds shear strength of the soil/rock. The shear strength of the soil/rock may be reduced during high rainfall periods when materials become saturated. Landslides also may be induced by ground shaking from earthquakes.

The project site is in an area of low landslide susceptibility due to the slope class and material strength. Soils at the project site have slow permeability and are not prone to saturation. Development of the project will be required to comply with all applicable Uniform Building Code and County Improvement Standards. Large landslides are unlikely to occur at the project site, particularly with enough force and material to expose people or structures on the project site to potentially substantial adverse effects, including the risk of loss, injury, or death.

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

**Less than significant.** The land surface at the project site has low slopes and although some of the soils have erosion potential, soil disturbance will be minimal consisting of driving posts and trenching activities to accommodate the project. The project would not cause topsoil and substantial soil erosion or loss of topsoil to occur. Construction proposed by the project will be subject to a grading permit that requires implementation of best management practices to minimize any adverse effects, and a Storm Water Pollution Prevention Plan is required for disturbance of one acre or more. These existing requirements for erosion control, stability of building sites, and building code compliance would remain in effect for all phases of project implementation to ensure that the proposed solar energy facility project would result in less than significant impacts related to erosion.

**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?**

**No Impact.** As discussed above, the project site is not located in an area of unstable geologic materials, and the project is not expected to significantly affect the stability of the underlying materials, which could potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. The project proposes to install approximately 3.5 acres of ground mounted solar equipment and a mainly below ground powerline. It would not contribute to landslides or liquefaction or other cyclic strength degradation during a seismic event. Landslides and lateral spreading occurrences in Yolo County are typically more prevalent in the Capay Valley along Cache Creek.

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

**Less than Significant Impact.** The proposed project site has areas of expansive soils documented at the project site, but is in a remote area with no residences within a mile of the project. A geotechnical report, along with soil samples, may be required as part of the building permit process. Risks to life and property from project development on expansive soils would be considered less than significant.

- 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.** The proposed solar energy facility will not be served by an onsite septic system.

- f) **Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?**

**No Impact.** There are no paleontological resources known or suspected to occur on the project site.

VIII. GREENHOUSE GAS EMISSIONS/CLIMATE CHANGE.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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 any applicable plan, policy or regulation of an agency 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

The issue of combating climate change and reducing greenhouse gas emissions (GHG) has been the subject of state legislation (AB 32 and SB 375). The Governor’s Office of Planning and Research has adopted changes to the California Environmental Quality Act (CEQA) Guidelines, and the environmental checklist which is used for Initial Studies such as this one. The changes to the checklist, which were approved in 2010, are incorporated above in the two questions related to a project’s GHG impacts. A third question has been added by Yolo County to consider potential impacts related to climate change’s effect on individual projects, such as sea level rise and increased wildfire dangers.

Yolo County has adopted General Plan policies and a Climate Action Plan (CAP) which addresses these issues. In order to demonstrate project-level compliance with CEQA relevant to GHG emissions and climate change impacts, applications for discretionary projects must demonstrate consistency with the General Plan and CAP. The adopted 2030 Yolo Countywide General Plan contains the following relevant policies and actions:

Policy CO-8.2: Use the development review process to achieve measurable reductions in greenhouse gas emissions.

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Action CO-A117: Pursuant to the adopted Climate Action Plan (CAP), the County shall take all feasible measures to reduce its total carbon dioxide equivalent (CO<sub>2</sub>e) emissions within the unincorporated area (excluding those of other jurisdictions, e.g., UC-Davis, Yocha Dehe Wintun Nation, DQ University, school districts, special districts, reclamation districts, etc.), from 648,252 metric tons (MT) of CO<sub>2</sub>e in 2008 to 613,651 MT of CO<sub>2</sub>e by 2020. In addition, the County shall strive to further reduce total CO<sub>2</sub>e emissions within the unincorporated area to 447,965 MT by 2030. These reductions shall be achieved through the measures and actions provided for in the adopted CAP, including those measures that address the need to adapt to climate change. (Implements Policy CO-8.1)

Action CO-A118: Pursuant to and based on the CAP, the following thresholds shall be used for determining the significance of GHG emissions and climate change impacts associated with future projects:

1) Impacts associated with GHG emissions from projects that are consistent with the General Plan and otherwise exempt from CEQA are determined to be less than significant and further CEQA analysis for this area of impact is not required.

2) Impacts associated with GHG emissions from projects that are consistent with the General Plan, fall within the assumptions of the General Plan EIR, consistent with the CAP, and not exempt from CEQA are determined to be less than significant or mitigated to a less than significant level, and further CEQA analysis for this area of impact is generally not required.

To be determined consistent with the CAP, a project must demonstrate that it is included in the growth projections upon which the CAP modeling is based, and that it incorporates applicable strategies and measures from the CAP as binding and enforceable components of the project.

3) Impacts associated with GHG emissions from projects that are not consistent with the General Plan, do not fall within the assumptions of the General Plan EIR, and/or are not consistent with the CAP, and are subject to CEQA review are rebuttably presumed to be significant and further CEQA analysis is required. The applicant must demonstrate to the County's satisfaction how the project will achieve its fair share of the established targets including:

- Use of alternative design components and/or operational protocols to achieve the required GHG reductions; and
- Use of real, additional, permanent, verifiable and enforceable offsets to achieve required GHG reductions. To the greatest feasible extent, offsets shall be: locally based, project relevant, and consistent with other long term goals of the County.

The project must also be able to demonstrate that it would not substantially interfere with implementation of CAP strategies, measures, or actions. (Implements Policy CO-8.5)

## DISCUSSION

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

**Less than Significant Impact.** Although construction could lead to some short-term GHG emissions due to vehicle trips generated during construction of the project, including approximately four truck trips to supply the project and during the eight weeks of construction

activity, emissions would be of a temporary nature and thus are not expected to have a significant permanent impact.

Long term, these emissions would be more than offset by the beneficial effects of creating new sources of renewable energy to the local and state grid of electrical power. The proposed project is not considered to have an individually significant or cumulatively considerable impact on global climate change. The proposed project will provide a sustainable resource supporting local agricultural production and offsetting the energy needs of a local company.

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

**No Impact.** The proposed solar project would not conflict with any applicable plan, policy or regulation adopted to reduce GHG emissions, including the numerous policies of the adopted 2030 Yolo Countywide General Plan and Climate Action Plan. The proposed solar project would help to implement many of the policies identified to support policies in the General Plan and Climate Action Plan that call for measurable reductions in GHGs through expanded capacity and reliance on renewable energy resources such as solar, wind, biomass, and others. The Climate Action Plan identifies solar energy as one of the most promising options for future renewable energy generation, with photovoltaic systems given favorable regard due to Yolo County's considerable solar energy potential.

IX.	HAZARDS AND HAZARDOUS MATERIALS.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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 checked="" type="checkbox"/>	<input 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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f.	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"/>

IX.	HAZARDS AND HAZARDOUS MATERIALS.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
g.	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**DISCUSSION**

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

**Less than Significant Impact.** The solar facility would not use or emit any large amounts of hazardous materials, other than small amounts of lubricating oil. Any stored materials would be required to comply with Yolo County Environmental Health regulations. Any current or future hazard related to hazardous waste is less than significant.

- c) **Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?**
- d) **Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?**
- 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?**

**No Impact.** The proposed Project site is located at a remote location in the Dunnigan Hills. No schools are located within one-quarter mile of the project site. The project site is not located on a site that is included on a list of hazardous materials sites compiled by the Yolo County Environmental Health Division- Hazardous Waste Site Files pursuant to Government Code Section 65962.5.

The project site is not located within an airport land use plan, is not within the vicinity of a public airport, and would not result in a safety hazard for people residing or working in the project area. There would be no safety hazard related to public airports that would endanger people residing or working in the project area.

- f) **Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

**No Impact.** The location of the proposed project is in a sparsely populated area and would not interfere with any emergency plans. Access to the site is being improved to serve as emergency vehicle access.

**g) 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?**

**Less than Significant Impact.** The project site is located in a remote rural area of unincorporated Yolo County outside of the moderate or greater Fire Hazard Severity Zone that lie at the western edge of the county. Therefore, exposure of life and property to wildfire hazards would be less than significant.

<b>X. HYDROLOGY AND WATER QUALITY.</b>	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<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 or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) 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; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**DISCUSSION**

**a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?**

**Less than Significant Impact.** The proposed project would not discharge any pollutants into the water system, or result in any violations of existing requirements. It is anticipated that the solar PV panels would be washed approximately twice each year to remove dust particles and other buildup to ensure optimum solar absorption. Panel cleaning would entail one or two water trucks spraying small amounts of water (approximately 2,000 gallons per MW). More frequent washings may occasionally be required. The panels would be washed with water only and any effect on water quality standards and waste discharge requirements would be less than significant.

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- b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?**

**No Impact.** The proposed project does not require an onsite well and would not deplete groundwater supplies or interfere with groundwater recharge. Therefore, there would be no impact to groundwater recharge or management.

- c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through addition of impervious surfaces, in a manner which would:**

- i) result in substantial erosion or siltation on- or offsite;**
- ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;**
- iii) 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; or**
- iv) impede or redirect flood flows?**

**Less than Significant Impact.** A small seasonal drainage runs west-east through the property but supports no woody vegetation or ponded areas. It drains into the Willow Spring Creek system. The proposed project site is approximately 700 feet from this drainage at its nearest point. The proposed project is located on an undeveloped weedy grassland. The ground beneath the solar mounts will remain permeable and the project is not expected to cause additional runoff. The final engineering design for the project will include measures to reduce soil erosion around the solar arrays. The project would not modify any drainage patterns or change absorption rates, or the rate and amount of surface runoff. No additional impacts to water quality are anticipated.

- d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?**

**No Impact.** The project is not located within a 100-year flood plain (Flood Zone A) as mapped by FEMA (Federal Emergency Management Agency) or any area that could potentially pose a seiche or tsunami hazard and is not located near any physical or geologic features that would produce a mudflow hazard.

- e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?**

**No Impact.** The project proposes construction of a medium solar array that will be an unstaffed facility. It would not require water for operations other than intermittent cleaning of the panels. It would not conflict or obstruct implementation of any water quality or groundwater management plans.

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	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
<b>XI. LAND USE AND PLANNING.</b>				

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Would the project:



		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
<b>XI.</b>	<b>LAND USE AND PLANNING.</b>				
a.	Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b.	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**DISCUSSION**

**a) Physically divide an established community?**

**No Impact.** The proposed project is located in a remote area of the Dunnigan Hills. The closest community is Zamora which is 2.5 miles away. The project would not divide an established community.

**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?**

**No Impact.** The proposed project would not conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. The Yolo County 2030 Countywide General Plan and Climate Action Plan encourage the installation of renewable energy technologies in order to promote GHG emission reductions (Policy CO-8.5). The project site is designated Agricultural in the Yolo County 2030 Countywide General Plan and is zoned Agricultural Extensive (A-X). Medium-sized solar power facilities in A-X zones only require a minor use permit when on Williamson Act contracted land.

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
<b>XII.</b>	<b>MINERAL RESOURCES.</b>				
	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"/>

**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?; and**
- 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.** The project area is not located within any identified area of significant aggregate deposits, as classified by the State Department of Mines and Geology. Most aggregate resources in Yolo County are located along Cache Creek in the Esparto-Woodland area.

XIII. NOISE.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in:				
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. For a project located within the vicinity of a private airstrip or 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"/>

**ENVIRONMENTAL SETTING**

Yolo County has not adopted a noise ordinance which sets specific noise levels for different zoning districts or for different land uses in the unincorporated area. Instead, the County relies on the State of California Department of Health Services' recommended Community Noise Exposure standards, which are set forth in the State's General Plan Guidelines (2003). These standards are included in the Yolo County 2030 Countywide General Plan and used to provide guidance for new development projects. The recommended standards provide acceptable ranges of decibel (dB) levels. The noise levels are in the context of Community Noise Equivalent Level (CNEL) measurements, which reflect an averaged noise level over a 24-hour or annual period. The Countywide General Plan identifies up to 75 dB CNEL as an acceptable exterior noise environment for agricultural land uses.

**DISCUSSION**

- a) **Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

**Less than Significant Impact.** The project site is in a remote area of the Dunnigan Hills. There is no residence within a mile of the proposed project site. As indicated above, the County General Plan defines up to 75 decibels as an acceptable level of noise, measured at the property line. Construction of the project would likely temporarily generate excessive noise levels due to the use of construction equipment; however, it is expected that noise levels would attenuate far below acceptable levels before possibly reaching a residence or public area. Construction of the facility is anticipated to last for up to eight weeks.

The 2030 Yolo Countywide General Plan Final Environmental Impact Report (FEIR) (Yolo County, 2009) notes that typical construction noise ranges between 80 to 88 dBA at 50 feet generated by tractors, front loaders, trucks, and dozers.

The noisiest typical construction equipment is pile drivers, which may measure 93 dBA at 50 feet. The rack for the solar array will require posts to be driven approximately eight feet into the ground so noise levels in this upper range may be generated during construction (see discussion in Section (b), below). The construction of the solar facility ~~are~~is not expected to generate noise levels at the boundaries of the property that will significantly impact the nearest neighbors, since the residences are located far enough away from the noisiest construction activities. Noise levels diminish or attenuate as distance from the noise source increases, based on an inverse square rule. Noise from a single piece of construction equipment attenuates at a rate of 6 dB for each doubling of distance. Therefore, temporary ambient noise impacts would be less than significant.

**b) Generation of excessive groundborne vibration or groundborne noise levels?**

**Less than Significant Impact.** Groundborne vibration levels may be measured similar to noise in vibration decibels (VdB). The 2030 Yolo Countywide General Plan FEIR notes that typical construction vibration levels range from 58 VdB at 25 feet for a small bulldozer and up to 112 VdB for a pile driver. As noted above, installation of the ground mounted solar array facility may require pile driving the posts, so vibration levels in this upper range may be generated during construction. However, construction activities are not expected to generate vibration levels at the boundaries of the property that will significantly impact the nearest neighbors, since the residences are located far enough away from the construction activities.

**c) For a project located within the vicinity of a private airstrip or 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 proposed project site is not located within an airport land use plan or within two miles of a private or public airstrip or airport. Implementation of the proposed project would not expose individuals to excessive noise levels associated with any nearby airstrip's aircraft operations.

XIV. POPULATION AND HOUSING.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Displace a substantial number of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**DISCUSSION**

**a) Induce substantial unplanned 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)?;**

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

**No Impact.** The proposed project is located on undeveloped grassland in a scarcely populated region of the rural county. It would serve to provide power for agricultural irrigation and to offset energy used by an existing winery. There are no other draws or infrastructure that would result in an increase in population growth and the project would not displace any existing housing or current residents as to necessitate the construction of housing elsewhere.

XV. PUBLIC SERVICES.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a 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 following public services:				
a. Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**DISCUSSION**

**a) Fire protection?**

**Less than Significant Impact.** The project proposes the ongoing management of all combustible vegetation and/or agricultural products on and around the project boundary in order to minimize risk to fire hazards, and the project will be conditioned to ensure vegetation is maintained. The solar equipment will be UL rated and built to NEC (National Electric Code) standards. Additionally, fire extinguishers will be located at each of the major components, and the site will be monitored with a remote system alarm notification. The site will improve and maintain a 20-foot wide emergency vehicle access road to and around the perimeter of the solar panels which would serve as a fire break. Implementation of the proposed project is not expected to have a significant impact on fire protection services.

**b) Police Protection?**

**Less than Significant Impact.** Implementation of the project may increase the need for law enforcement at the project site but would not result in the construction of new or modified facilities in order to maintain adequate service levels. Impacts will be less than significant.

- c) Schools?;**
- d) Parks?; and**
- e) Other public facilities?**

**No Impact.** The proposed solar energy facility will not result in the demand for any new housing and would not generate any additional demand for schools, parks, or other public facilities such

as libraries, hospitals, satellite County offices, etc. Prior to issuance of building permits at the project site, any applicable impact fees will be collected.

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
<b>XVI.</b>	<b>RECREATION.</b>				
a.	Would the project 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.	Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**DISCUSSION**

- a) **Would the project 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? and**
- b) **Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?**

**No Impact.** The proposed project is located in a sparsely populated region of the Dunnigan Hills. It would not require the construction of additional recreational facilities nor substantially increase the use of existing recreational facilities.

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
<b>XVII.</b>	<b>TRANSPORTATION</b>				
Would the project:					
a.	Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b.	Conflict or be inconsistent with CEQA Guidelines section 15064.3 subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c.	Substantially increase hazards due to a geometric 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"/>
d.	Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**ENVIRONMENTAL SETTING**

The roadway network within unincorporated Yolo County consists primarily of two-lane roads that are designed to serve small farming communities and agricultural uses. Thus, policies in the 2030 Countywide General Plan encourage inter-and intra-regional traffic to use State and federal

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interstates and highways, since the primary role of county roads is to serve local and agricultural traffic.

Access to the solar facility would come from County Road 17 by means of 1.4 miles of private road and then a proposed 20-foot wide Emergency Vehicle Access road running approximately 0.85 mile to the solar facility. County Road 17 is gated where County maintenance ends and the private road begins. Local emergency services have a key for the gate. No transit or bicycle or pedestrian facilities are located on this remote section of farm road.

## DISCUSSION

**a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?**

**Less than Significant Impact.** The proposed solar project will require a limited number of truck trips to prepare the site for construction, and to install the racking system and assemble the panels and powerline. Access to the project would be provided from County Road 17 via private roads maintained to facilitate emergency vehicle access. The number of trips generated during the construction period would not be expected to be substantial in relation to existing traffic loads, and would not exceed any levels of service standards of nearby roads or intersections. No public transit, bicycle, or pedestrian facilities currently exist and the proposed project would not interfere with the future construction of any planned facilities.

Operation of the project would include occasional maintenance of the solar arrays by one or two employees performing visual inspections and minor repairs. The solar PV panels would be washed approximately two times per year by use of a water truck. Additional traffic from employees monitoring/maintaining the project site would be negligible and impacts are expected to be less than significant.

**b) Conflict or be inconsistent with CEQA Guidelines section 15064.3 subdivision (b)?**

**Less than Significant Impact.** As discussed in (a) above, transportation of workers to the site for construction would be limited to a period of eight weeks. Operation of the project would include occasional maintenance of the solar arrays by one or two employees performing visual inspections and minor repairs. The solar PV panels would be washed approximately two times per year by use of a water truck. Additional traffic from employees monitoring/maintaining the project site would be negligible and not reach the threshold of significance for county vehicle miles travelled.

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

**No Impact.** See discussion in (a) above. The site is accessed from County Road 17, which ends in a gate onto privately maintained roadway. Large trucks and construction equipment will be utilized during the construction period; however, such uses are standard on county roads. Therefore, there will be no increase in hazards due to a design feature or incompatible use.

**d) Result in inadequate emergency access?**

**No Impact.** The project would be accessed on approximately 2.25 miles of private roads from County Road 17. The 1.4-mile section of the CR 17 right-of-way no longer maintained by the County is now privately maintained. The project proposes to improve the remaining existing dirt road for emergency vehicle access. The project was sent for review by the local fire department to ensure that there is sufficient emergency access to the site.

XVIII. TRIBAL CULTURAL RESOURCES.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resource Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
(i) Listed or eligible for listing in the California Register of Historical Resources, or in the local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resource Code Section 5024.1. In applying the criteria set forth in subsection (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**DISCUSSION**

a) **Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resource Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:**

(i) **Listed or eligible for listing in the California Register of Historical Resources, or in the local register of historical resources as defined in Public Resources Code Section 5020.1(k)**

**No Impact.** The project site is not listed or eligible for listing in the State or local register of resources so that there would be no impact by the project.

(ii) **A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resource Code Section 5024.1. In applying the criteria set forth in subsection (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.**

**Less than Significant Impact.** An early agency review conducted for the project elicited a response from the Yocha Dehe Wintun Nation’s Tribal Historic Preservation Officer who indicated the Tribe had a cultural interest in the project area. Although there are no identified cultural sites at the project site, the possibility for unearthing undiscovered resources during ground disturbing activities is present. The Tribe recommended cultural sensitivity training for all members of the construction team and pre-project personnel along with standard protections for the unexpected discovery of artifacts or human remains. As discussed in the Section V. Cultural Resources, these recommendations are included in **Mitigation Measure CUL-1**. In addition to coordinating with

Yocha Dehe, the County sent out an invitation for consultation to the Wilton Rancheria, Cortina Rancheria Band of Wintun Indians of California, Lone Band of Miwok Indians, and the Torres Martinez Desert Cahuilla Indians, but received no other responses.

XIX. UTILITIES AND SERVICE SYSTEMS.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Require or result in the relocation or construction of new water or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. 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 type="checkbox"/>	<input checked="" type="checkbox"/>
d. Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## DISCUSSION

**a) Require or result in the construction of new water or expanded water, wastewater treatment or storm drainage, electric power, natural gas, or telecommunications facilities, the construction of which could cause significant environmental effects?**

**No Impact.** The proposed solar project would provide energy for irrigation pumps and offset some energy use for the nearby winery. It would reduce the need for new power generation and not require any other utilities; therefore, it would not cause new or expanded utility construction.

**b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?**

**No Impact.** The proposed wireless tower facility project does not require water and/or wastewater services and would not result in the construction of new water and wastewater treatment facilities.

**c) 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?**



- d) **Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?**
- e) **Comply with federal, state, and local statutes and regulations related to solid waste?**

**No Impact.** The proposed solar energy facility would not produce liquid or solid waste, only electrons; therefore, there would be no impact to any wastewater facility or solid waste standards or statutes.

XX. WILDFIRE.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, <b>would the project:</b>				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Due to slope, prevailing winds, and other factors, exacerbate wild-fire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**DISCUSSION**

**If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:**

- a) **Substantially impair an adopted emergency response plan or emergency evacuation plan?**
- b) **Due to slope, prevailing winds, and other factors, exacerbate wild-fire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?**
- c) **Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?**
- d) **Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?**

**No Impact.** The project is not located in or near lands classified as very high fire hazard severity zones. Only the western forested areas of the county on the Blue Ridge Range and Capay Hills are located in high fire hazard severity zones.

XXI.	MANDATORY FINDINGS OF SIGNIFICANCE.	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a.	Does the project have the potential to 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, substantially reduce the number or restrict the range of a rare or endangered plant or animal, 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**DISCUSSION**

a) **Does the project have the potential to 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, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?**

**Less than Significant with Mitigations Incorporated.** Based on the analysis provided in this Initial Study and the Conditions of Approval required for project implementation, including the Mitigation Measures addressed in Section IV and V, the project would not degrade the quality of the environment. As discussed in Section IV. Biological Resources of this Initial Study, the mitigation measure requiring a bird nesting survey during breeding season would avoid potential impacts to Swainson’s hawk nesting habitat. This would reduce impacts to biological resources to less than significant levels so that the habitat and/or range of any special status animals are not endangered. Additionally, the project will be required to comply with proposed mitigation that regulates construction activity during raptor nesting season, if any nearby nests are identified. Although no important examples of major periods of California history or prehistory in California were identified and the area was not identified as having special cultural significance, Section V. Cultural Resources provides a Mitigation Measure as recommended by the Yocha Dehe Wintun Nation to require cultural sensitivity training and set protocols for the unexpected discovery of archaeological artifacts or human remains. Overall, impacts will be less than significant with implementation of these mitigation measures.

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- 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.)**

**No Impact.** Based on the analysis provided in this Initial Study, the project would have no significant cumulative impacts.

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

**Less than Significant Impact.** Based on the analysis provided in this Initial Study, impacts to human beings resulting from the proposed project would be less than significant. The project is located in a remote, sparsely populated area. Thus, the project, as conditioned, would not have substantial adverse effects on human beings, either directly or indirectly. Overall impacts from implementation of the project will be less than significant.

### **References**

- Project description and application materials provided by applicant
- Yolo County, 2009. *Yolo County 2030 Countywide General Plan*, adopted November, 2009 and *Yolo County 2030 Countywide General Plan Final EIR*, April 2009
- Yolo-Solano Air Quality Management District, 2007. *Handbook for Assessing and Mitigating Air Quality Impacts*, July, 2007.
- Yolo County Zoning Ordinance, *Title 8, Chapter 2 of the County Code*, 2014, as amended
- Solano Archaeological Services. *Cultural Resources Letter Report*. April 24, 2020.
- Moore Biological Consultants. *Biological Assessment*. May 13, 2020.