

COUNTY OF TULARE RESOURCE MANAGEMENT AGENCY



5961 South Mooney Boulevard
Visalia, CA 93277

Initial Study and Mitigated Negative Declaration

Angela Solar
(PSP 19-083)

May 2020

Prepared by
County of Tulare Resource Management Agency
Economic Development and Planning Branch
Environmental Planning Division

INITIAL STUDY CHECKLIST

1. **Project Title:** Angela Solar Project (PSP 19-083)
2. **Lead Agency:** County of Tulare
Resource Management Agency
5961 S. Mooney Blvd.
Visalia, CA 93277
3. **Contact Persons:** David Alexander, Planner II (Project Planner) – 559-624-7138
Hector Guerra, Chief, Environmental Planning Division – 559-624-7121
4. **Project Location:** The Project site is located in the USGS 7.5 Minute Quadrangle: Allensworth approximately 1.25 miles south of the unincorporated community of Alpaugh and approximately 3.5 miles south of Highway 137, generally abutting Road 164 to the west and Avenue 200 to the south. It lines within Section 30, Township 20 South, Range 26 East, MDB&M entirely within APN 198-060-011.
5. **Applicant:** Angiola East, LLC
5601 E. Slauson Ave. Suite 101
Commerce, CA 90040
6. **Owner**

Rafael and Luisa Garcia (APNs 330-100-026 and 330-110-007)
4591 Avenue 42
Alpaugh, CA 93201

Christina Hernandez and Lorena Zormeno (APNs 330-100-045, and -046)
4725 Avenue 42 416 T Street
Alpaugh, CA 93201 Bakersfield, CA 93304

Luis Napoles (APNs 330-130-05, -006, -007, -031)
P.O. Box 106
Alpaugh, CA 93201

Heliodoro Robles (APN 330-110-013)
2375 Avenue 50
Alpaugh, CA 93201
7. **General Plan Designation:** A (Agriculture)
8. **Zoning:** AE-80 (Exclusive Agriculture – 80 Acre Minimum)
9. **Description of Project (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)** The comprehensive project description, including project components is included in Attachment “D”, the following is a summary of the project description. The Project would provide approximately 40 megawatts (MW) of electricity (renewable energy). Project components include solar (photo-voltaic, PV) modules (approximately 138,408) mounted on single access trackers. The steel piles supporting the PV modules would be driven into the soils using pneumatic techniques. Following pile installation for the single-axis tracking system, the associated motors, torque tubes, and drivelines would be placed and secured. Eleven (11) inverter stations containing electrical equipment to serve each block of solar panel arrays. Various wiring, underground cables, combiner boxes, inverters, transformers, would also be installed. A new, on-site

substation/switchyard (located in the northwest corner of the Project site) would tie into a new one mile (1.0) mile-long 138-kV transmission interconnection line (along a utility easement on non-maintained County roads and private property easement) with the nearby Pacific Gas & Electric (PG&E) Olive substation north of the Project site. Access and internal roads would be included along the perimeter and main access roads would meet Tulare County Fire Department standards and would be approximately 20 feet wide, likely using gravel, compacted dirt, or other commercially viable surface. A six (6)-foot tall chain-link security fence would be installed around the perimeter of the Project site and, if applicable, motion activated lighting which would be hooded and directed downward to minimize off-site light and glare would also be installed. Project construction would require the use of graders, trenchers, small tractors, a crane, and miscellaneous equipment. An estimated average of 150-450 construction vehicle trips per day would be used to import construction workers, PV module materials, substation/switchyard equipment, the distribution line and associated support poles, the potential power storage facilities, and the gravelling of all compacted roads. To summarize, the Project would be constructed in three (3) stages as follows: Phase 1, Site Preparation; Phase 2, Photovoltaic Panel System; and Phase 3, Inverters, Transformers, Substation, Electrical Collector System, and Interconnection. Also, following its proposed life of 35 years, the site would be decommissioned and reclaimed as required by the County. The project is estimated to take approximately six-to-nine (6-9) months to complete, excluding 2-3 weeks of initial site grading. Figures 4 and 5 show the Project Layout Overview and Site Plan, respectively

10. Surrounding land uses and setting (Brief description):

- North: vacant land, limited agriculture, irrigation canals, scattered rural residences, and solar projects;
- South: vacant land and limited agriculture;
- East: vacant land, limited agriculture, and irrigation canals; and
- West: vacant land, limited agriculture, and scattered rural residences

11. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement): Regional Water Quality Control Board, San Joaquin Valley Unified Air Pollution Control District, other TBD.

12. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that include, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc? Pursuant to AB 52, a Sacred Land File search reply was received from the Native American Heritage Commission on May 8, 2020, indicating the search results were negative. On May 7, 2020, tribal consultation notices were sent to thirteen (13) tribal contacts representing five (5) Native American tribes. As of the date of release of this environmental document, the County has received one response from the tribes within the 30-day response time. Mitigation measures have been included in the project to reduce potential impacts on tribal cultural resources in the unlikely event that any are unearthed during construction-related activities.

Figure 1. Vicinity Map

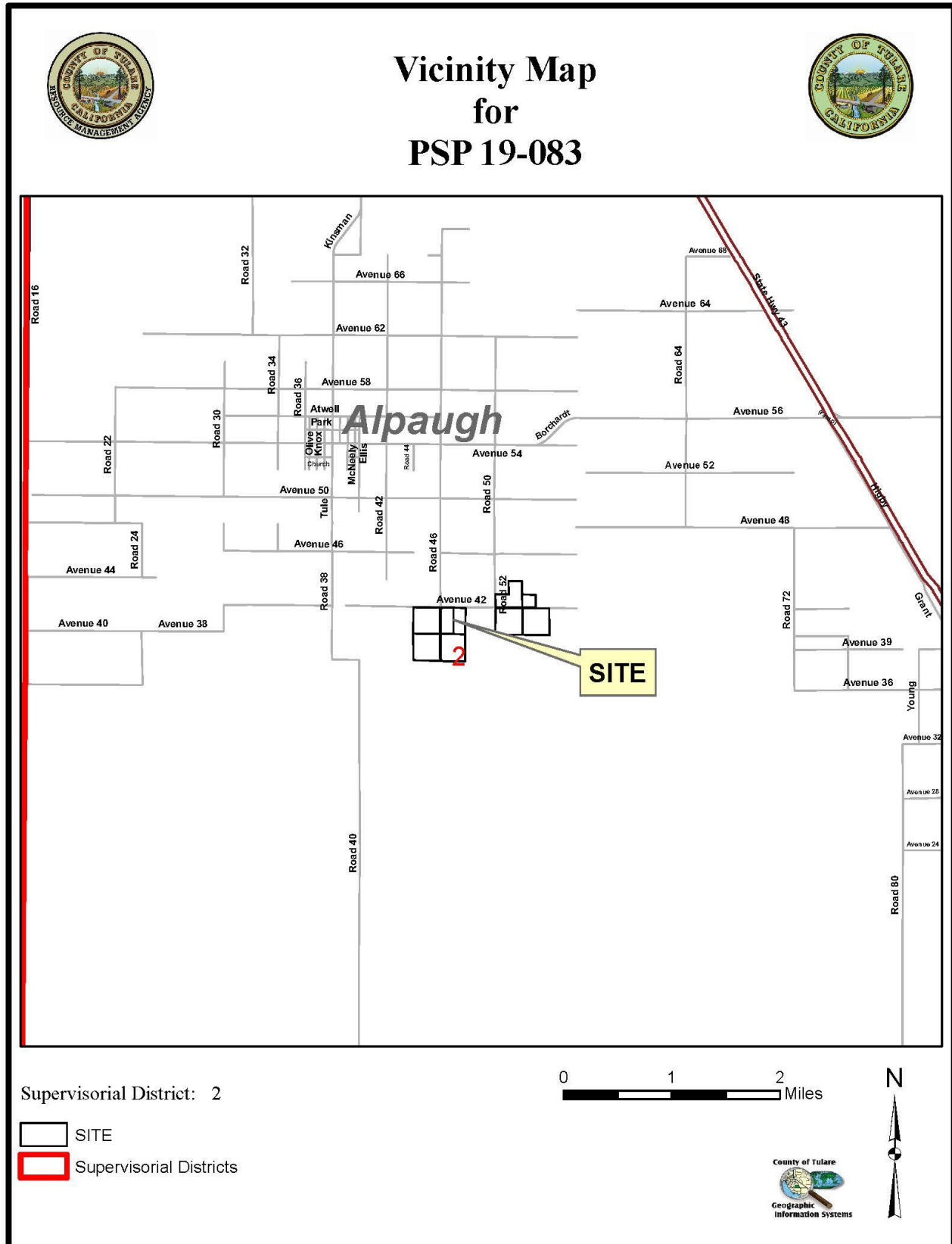


Figure 2. Aerial View of Site

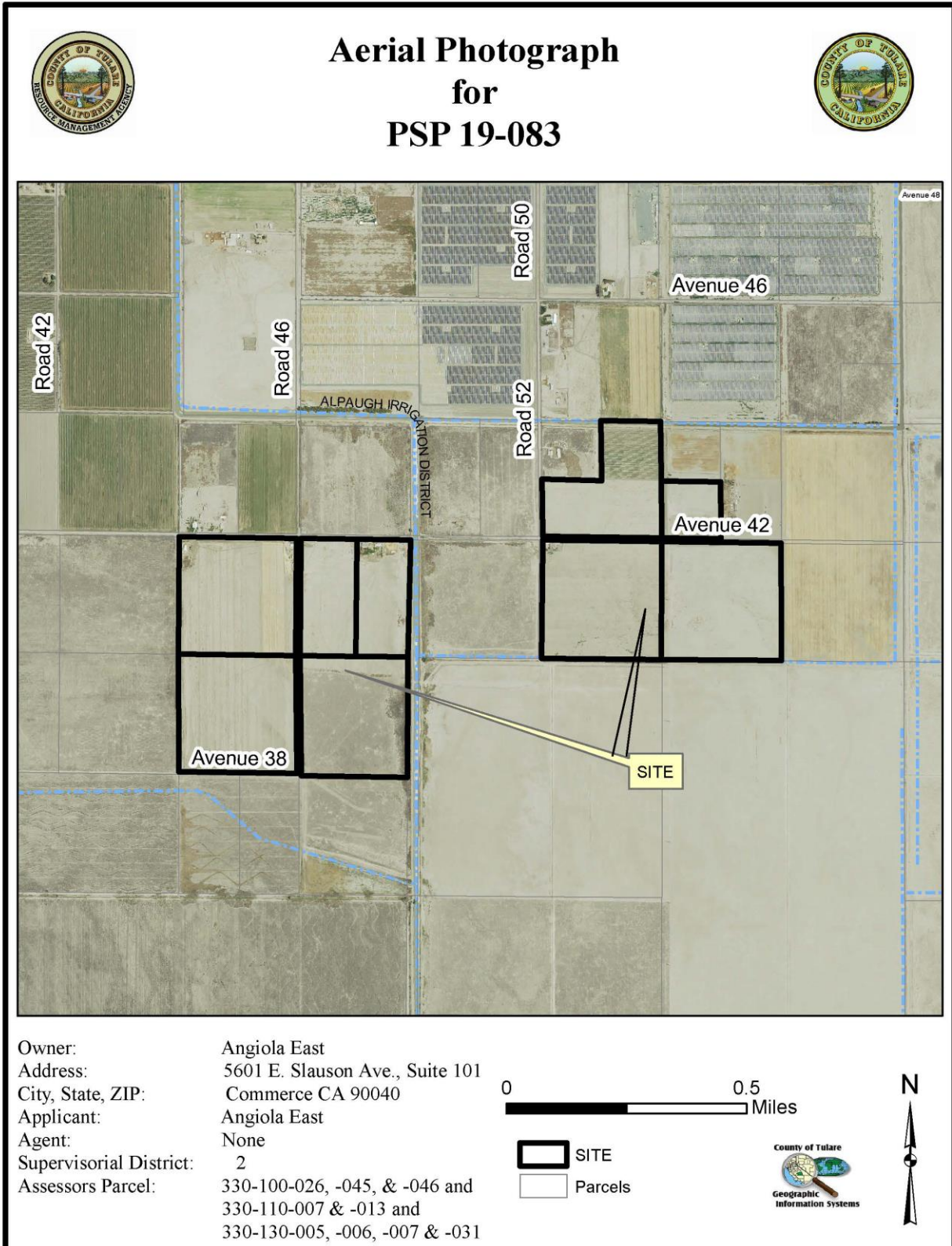


Figure 3. Zoning

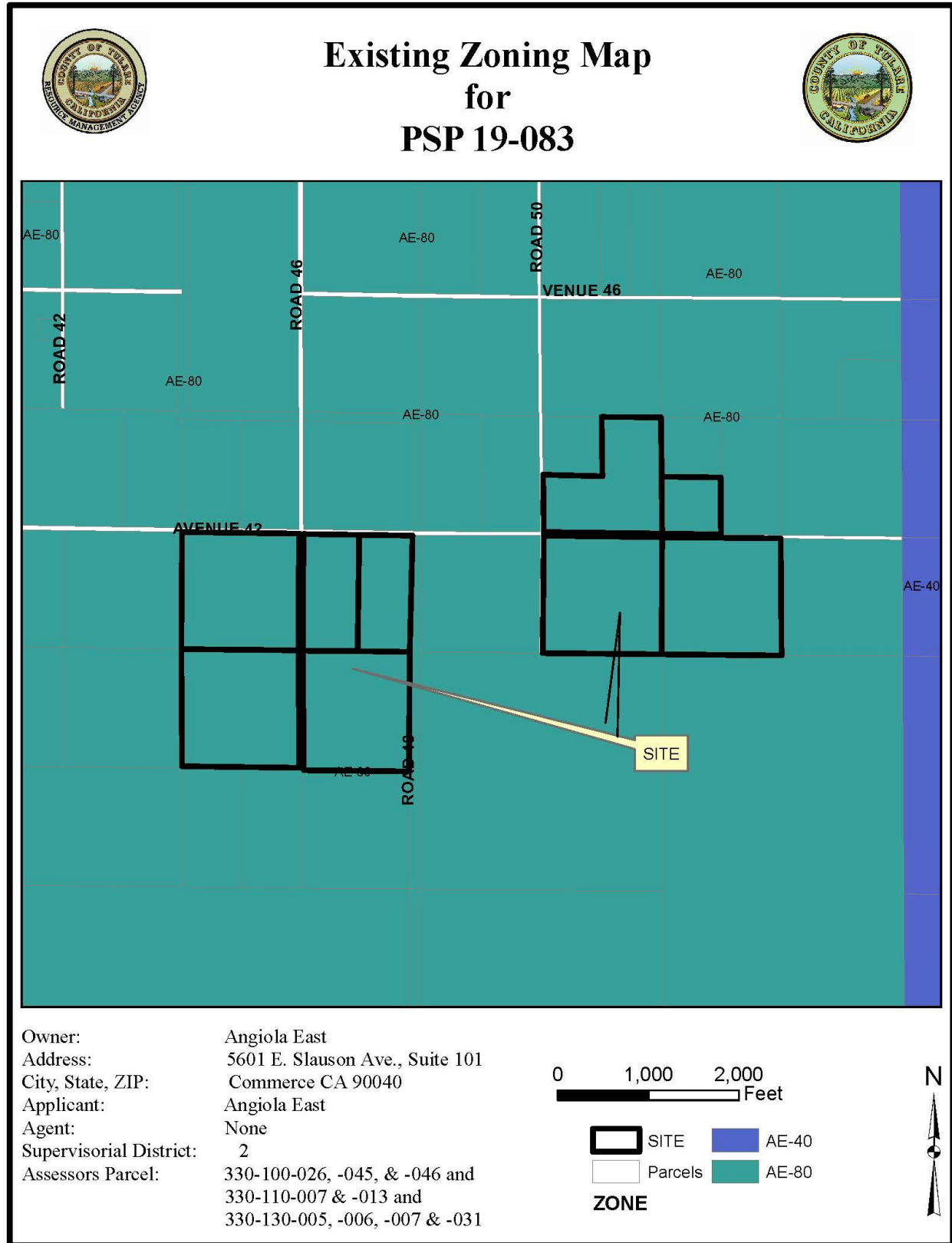


Figure 4. Site Plan (1 of 3)

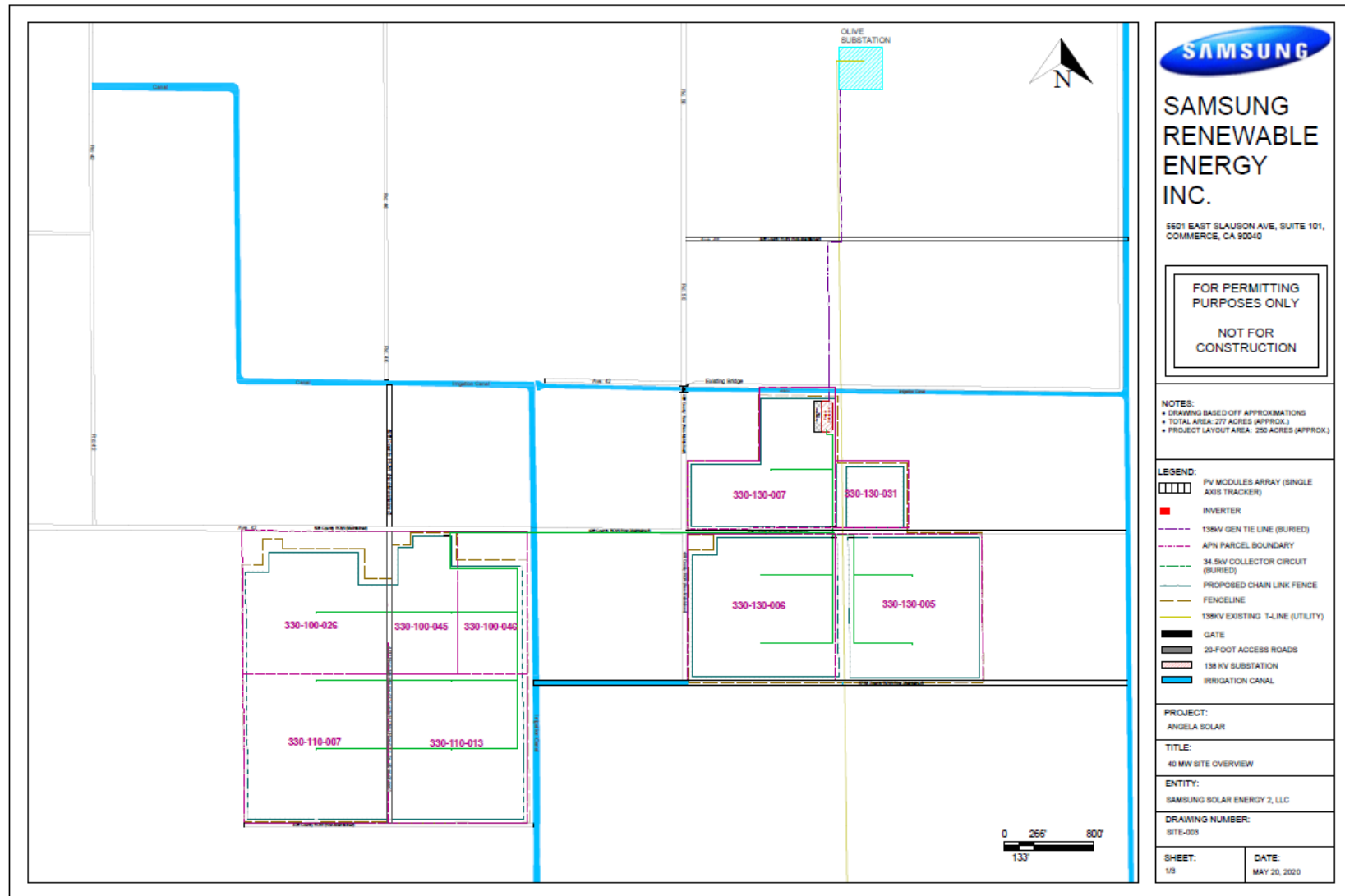


Figure 5. Site Plan (2 of 3)

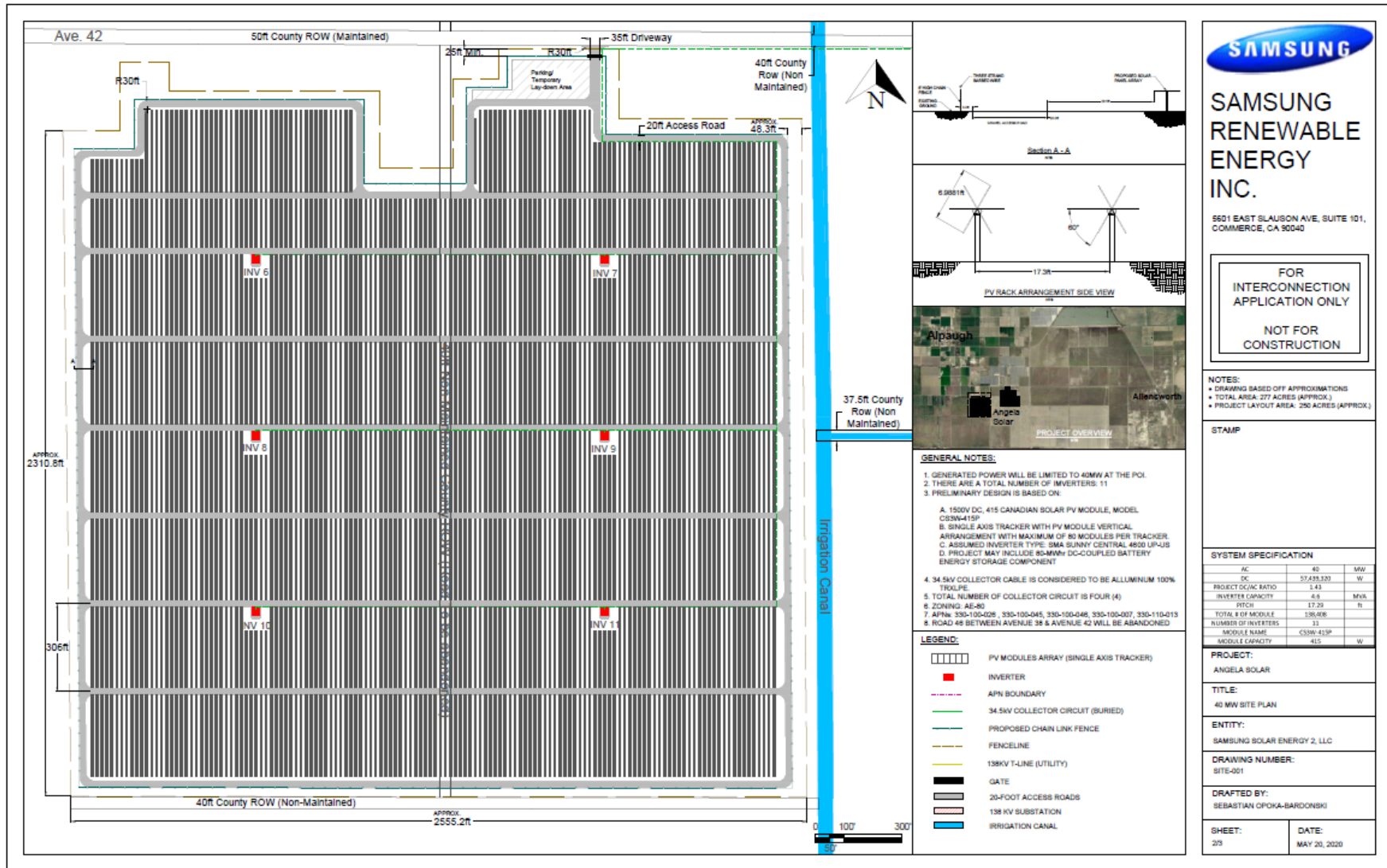
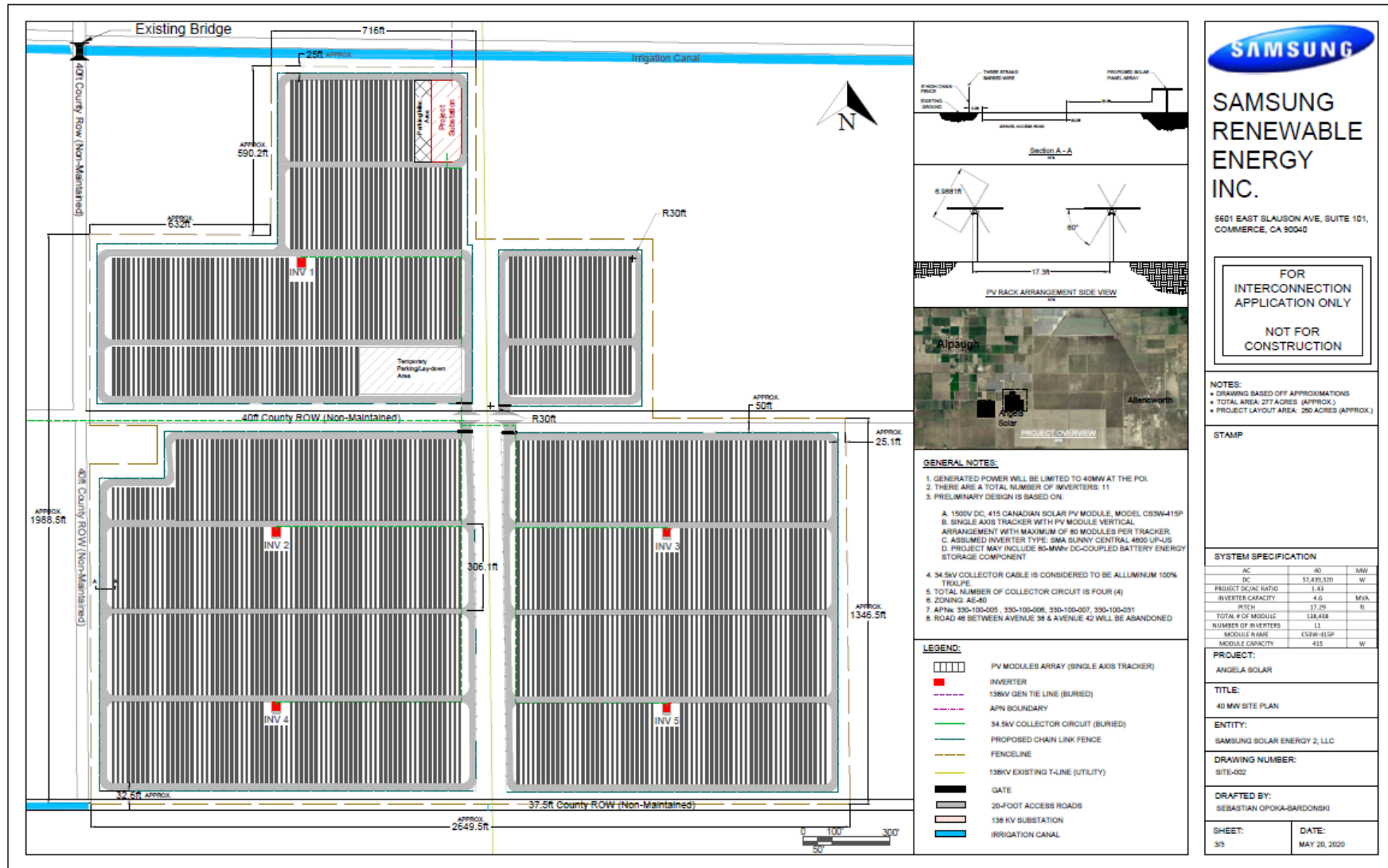


Figure 6. Site Plan (3 o f3)



ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

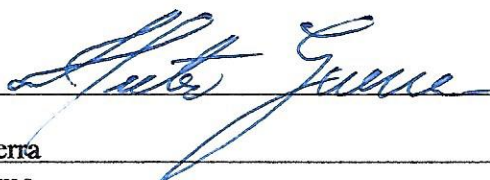
A. The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- | | | |
|--|--|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture Resources | <input checked="" 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 checked="" type="checkbox"/> Noise | <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Population/Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation | <input checked="" type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Wildfire | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

B. 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 in the project have been made 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 a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier **EIR** or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier **EIR** or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature: 

Hector Guerra
Printed Name

Date: 5/20/20

Chief Environmental Planner
Title

Signature: 

Reed Schenke, P.E.
Printed Name

Date: 5/20/2020

Environmental Assessment Officer
Title

C. EVALUATION OF ENVIRONMENTAL IMPACTS:

- 1) A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
- 4) “Negative Declaration: Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from “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 previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project’s environmental effects in whatever format is selected.
- 9) The explanation of each issue should identify:
 - a) the significance criteria or threshold, if any, used to evaluate each question; and
 - b) the mitigation measure identified, if any, to reduce the impact to less than significance.

			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
1.	AESTHETICS					
	Would the project:					
	a)	Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input 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 which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Analysis:

Environmental Setting

Tulare County is located in a predominately agricultural region of central California. The terrain in the County varies. The western portion of the County includes a portion of the San Joaquin Valley (Valley), and is generally flat, with large agricultural areas with generally compact towns interspersed. In the eastern portion of the County are foothills and the Sierra Nevada mountain range. The project site is located on the Valley floor, which is very fertile and has been intensively cultivated for many decades. Agriculture and related industries such as agricultural packing and shipping operations and small and medium sized manufacturing plants make up the economic base of the Valley region. Many communities are small and rural, surrounded by agricultural uses such as row crops, orchards, and dairies. From several locations on major roads and highways throughout the County, electric towers and telephone poles are noticeable. Mature trees, residential, commercial, and industrial development, utility structures, and other vertical forms are highly visible in the region because of the flat terrain. Where such vertical elements are absent, views are expansive. Most structures are small; usually one story in height, through occasionally two story structures can be seen commercial or industrial agricultural complexes. The County provides a wide range of views from both mobile and stationary locations...¹ The proposed Project site is located on the San Joaquin Valley floor in an unincorporated area approximately 1.25 miles south of the unincorporated community of Alpaugh (Alpaugh) in Tulare County, California. The aesthetic features of the existing visual environment in the proposed Project area are relatively uniform, with broad, flat, agricultural setting landscapes. The Project site is located approximately 25 miles east of the Coast Range. Topographically, the Project site is flat (less than 2 percent slope across the site) with an average elevation of approximately 315 feet above mean sea level, and has historically been used for irrigated row crop cultivation and grazing. Other than scattered rural residences, nearby solar projects (north), and predominantly agriculturally productive lands, there are no scenic resources such as rivers, lakes, rock outcroppings, historical structures, etc., within or near the Project area.

Regulatory Setting

Federal

Aesthetic resources are protected by several federal regulations, none of which are relevant to this Project because it will not be located on lands administered by a federal agency nor is the Project applicant requesting federal funding or any federal permits.

¹ Tulare County 2030 General Plan: Recirculated Draft EIR (RDEIR). Page 3.1-11.

State

Nighttime Sky – Title 24 Outdoor Lighting Standards

The California Energy Commission (CEC) adopted changes to Title 24, Parts 1 and 6, Building Energy Efficiency Standards (Standards), on November 5, 2003. These new Standards became effective on October 1, 2005. Included in the changes to the Standards are new requirements for outdoor lighting. The requirements vary according to which “Lighting Zone” the lighting equipment is located. The Standards contain lighting power allowances for newly installed equipment and specific alterations that are dependent on which Lighting Zone the project is located. Existing outdoor lighting systems are not required to meet these lighting power allowances. However, alterations that increase the connected load, or replace more than 50% of the existing luminaires (for each outdoor lighting application that is regulated by the Standards) must comply with the lighting power allowances for newly installed equipment.

The Standards base the allowable lighting power on the brightness of the surrounding conditions. The eyes adapt to darker surrounding conditions, and less light is needed to properly see; conversely, when the surrounding conditions are brighter, more light is needed to see. The least lighting power is allowed in Lighting Zone 1 and increasingly more lighting power is allowed in Lighting Zones 2, 3, and 4.

The CEC defines the boundaries of Lighting Zones based on U.S. Census Bureau boundaries for urban and rural areas as well as the legal boundaries of wilderness and park areas (see Standards Table 10-114-A). By default, government designated parks, recreation areas and wildlife preserves are Lighting Zone 1; rural areas are Lighting Zone 2; and urban areas are Lighting Zone 3. Lighting Zone 4 is a special use district that may be adopted by a local government²

California Scenic Highway Program

The Scenic Highway Program allows county and city governments to apply to the California Department of Transportation (Caltrans) to establish a scenic corridor protection program which was created by the Legislature in 1963. Its purpose is to protect and enhance the natural scenic beauty of California highways and adjacent corridors through special conservation treatment. The state laws governing the Scenic Highway Program are found in the Streets and Highways Code, Sections 260 through 263. Two Eligible State Scenic Highways occur in Tulare County, SRs 198 and 190; however, they are not Designated State Scenic Highways.

Local

Tulare County General Plan 2030 Update

The Tulare County General Plan 2030 Update: Chapter 7 – Scenic Landscapes, contains the following goals and policies that relate to aesthetics, preservation of scenic vistas and daytime lighting/nighttime glare and which have potential relevance to the Project’s CEQA review: *SL-1.1 Natural Landscapes* which requires new development to not significantly impact or block views of Tulare County’s natural landscapes; *SL-1.2 Working Landscapes* which requires that new non-agricultural structures and infrastructure located in or adjacent to croplands, orchards, vineyards, and open rangelands be sited so as to not obstruct important viewsheds and to be designed to reflect unique relationships with the landscape; and *SL-2.1 Designated Scenic Routes and Highways* which is intended to protect views of natural and working landscapes along the County’s highways and roads by maintaining a designated system of County scenic routes and State scenic highways.

- a) Less Than Significant:** For the purposes of this Project, a scenic vista is defined as an area that is designated, signed, and accessible to the public for the purpose of viewing and sightseeing. The Project site is located in unincorporated southwestern Tulare County approximately 1.25 miles from Alpaugh in a generally undeveloped area on the floor of the San Joaquin Valley. The area surrounding the Project site is primarily rural agricultural land (i.e., scattered rural residences in every direction, active row crops, and nearby solar projects) and the Project would be low-profile (that is, no building will be greater than 35’ feet in height and the solar tracker array would not exceed 12 feet in height). Zoning height limitations would restrict structures (e.g.; inverter stations, battery storage, etc.) to no greater than a two-story equivalent (i.e., 2-½ stories and not to exceed 35 feet maximum). No parts of the Project would obstruct local scenic views, be visually intrusive or incompatible with the surrounding area, or be visible to large numbers of sensitive receptors. A new transmission will also be constructed along above ground and/or below ground gen-tie lines would run from the project substation to the existing Olive Substation owned and operated by PG&E. Because of its remoteness, the new line will not represent a substantial intrusion on the viewshed of the area. Also, there are no designated scenic vistas within visible distance of the Project site (County of Tulare, 2010). The Applicant is uncertain if security light will be necessary; however, if required, the applicant will install motion activated lighting which would be hooded and directed downward to minimize off-site light and glare. Therefore, the Project would have no impact on a scenic vista.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT	
<p>b) No Impact: There are no rock outcroppings, historic buildings, or other designated scenic resources within or near the Project site. The California Scenic Highway Program allows counties to nominate an eligible scenic highway to be approved by the California Department of Transportation and placed under the scenic corridor protection program. In Tulare County, there is currently one officially designated scenic highway, and two highways that are eligible for designation. Approximately two miles of the officially designated Scenic Highway (State Route) 180 passes through Tulare County, but this segment of SR 180 is greater than 65 miles northeast of the Project site. Additionally, there are two Eligible State Scenic Highways (SR 190, approximately fifteen miles northeast; and SR 198, approximately 33 miles northeast), but neither of these are near the Project site. As such, the Project is not located within the viewshed of any of the listed designated or eligible highway segments.</p> <p>Additionally, the County of Tulare identified a number of County Scenic Roads in its 2012 General Plan Update; however, none of the roads are near or within the vicinity of the Project site. As a result, the Project would have no impact on existing scenic resources or highways. As noted earlier, the Project is located in a relatively flat area and does not contain scenic resources such as significant trees, rock outcroppings, or historic buildings. Therefore, there would be no impact to an eligible or designated state scenic highway or other scenic resources as a result of the proposed Project.</p> <p>c) No Impact: As noted earlier, the Project site is located in a rural, predominantly agricultural area. The remoteness of the site, the absence of persons (there are only four rural residences near the site), and the likely low average daily vehicle trips per day (based on the lack of traffic generating uses, such as commercial, industrial, higher residential densities, etc.) do not avail the site to a significant number of opportunities for the site to result in an adverse impact to public views or vantage points viewing. As such, even though the Project location is in a non-urbanized area, it would not substantially degrade the existing visual character or quality of the site and its surroundings. Therefore, the project would not conflict with applicable zoning and other regulations governing scenic quality resulting in no impact to this resource.</p> <p>d) Less Than Significant Impact: As noted earlier, given the uncertainty that the Project will include security lighting, if installed, it will be motion activated, hooded, and directed downward to minimize off-site light and glare. As such, the Project will not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area resulting in a less than significant impact to this resource.</p>						
2.	AGRICULTURAL AND FOREST RESOURCES					
	In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the Rural Valley Lands Plan point evaluation system prepared by the County of Tulare as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:					
	a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	b)	Conflict with existing zoning for agriculture use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources code 12220(g),	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

² California Department of Energy. Title 24 Standards Table 10-114-, Lighting Zone Characteristics and Rules for Amendments by Local Jurisdictions. http://www.energy.ca.gov/title24/2005standards/outdoor_lighting/2004-09-30_LIGHTING_ZONES.PDF. Site accessed May 2020.

			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
		timberland (as defined in Public Resource Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				
	d)	Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Analysis:

Environmental Setting

The Project site is located in the San Joaquin Valley portion of Tulare County. This area is characterized by rich, highly productive farmland. Agriculture is the most important sector in Tulare County's economy, and agriculture and related industries make Tulare County one of the two most productive agricultural counties in the United States, according to Tulare County Farm Bureau statistics. "Agricultural lands (crop and commodity production and grazing) also provide the County's most visible source of open space lands. As such, the protection of agricultural lands and continued growth and production of agriculture industries is essential to all County residents."³

The 2018 Tulare County Annual Crop and Livestock Report listed Tulare County's total gross production value for 2018 as \$7,213,303,400. Milk was the leading agricultural commodity in Tulare County in 2015, representing 23.5% of the total crop and livestock value. The 2018 report listed over 120 different commodities, 45 of which had a gross value greater than \$1 million. The top five agricultural commodities in the County in 2018, based on total/gross value were milk, grapes, oranges, cattle, and tangerines.⁴

The most recent statewide California Farmland Conversion Report (CFCR) from the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP) assesses statewide farmlands from the period 2014-2016. However, Tulare County specific data from the period 2014-2016 indicates that agricultural lands in Tulare County in 2014 included 859,171 acres of important farmland (designated as FMMP Prime, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance) and 439,961 acres of grazing land, for a total of 1,299,132 acres of agricultural land.⁵

In line with the State of California, Tulare County has also seen a decrease in FMMP-designated farmland. Between the years 2014 and 2016, Tulare County lost 278 acres of Prime Farmland, and gained 1,469 acres of Farmland of Statewide Importance and 270 acres of Unique Farmland.⁶ Farmlands of Statewide Importance are defined as "lands similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date."⁷ Overall, between 2017-2016, Tulare County lost 1,079 acres of agricultural lands (which includes 27 acres of grazing land).

As presented in **Table AG-1**, the California Land Conservation Act of 1965 2016 Status Report (December 2016) notes that 1,093,126 acres of farmland with Tulare County is under California Land Conservation Act (Williamson Act) contracts; a program designed to prevent premature conversion of farmland to residential or other urban uses. The 1,093,126 acres of farmland under Williamson Act or Farmland Security Zone contracts in Tulare County divided by the following categories: 569,028 acres of

³ Tulare County General Plan 2030 Update, August 2012. Page 3-4.

⁴ 2018 Tulare County Annual Crop and Livestock Report. October 2019. <https://agcomm.co.tulare.ca.us/ag/index.cfm/standards-and-quarantine/crop-reports1/crop-reports-2011-2020/2018-crop-report/>. Accessed May 2020.

⁵ California Department of Conservation, Division of Land Resource Protection. Table A-44 Tulare County 2014-2016 Land Use Conversion. https://www.conservation.ca.gov/dlrp/fmmp/Pages/county_info.aspx. Accessed May 2020.

⁶ Ibid.

⁷ Op. Cit.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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Williamson Act prime, 512,946 acres nonprime, and 11,052 acres of Farmland Security Zone lands (The acreage totals also include 175 acres of Williamson Act prime contract land in nonrenewal and 15,731 acres of Williamson Act of nonprime contract land in nonrenewal.)⁸

Table AG-1⁹: 2012 Tulare County Lands under Williamson Act or Farmland Security Zone Contracts	
Acres	Category
569,028	Total prime = Prime active + NR Prime
512,946	Total Nonprime = Nonprime active + NR Prime
11,052	Farmland Security Zone
1,093,126	TOTAL ACRES in Williamson Act and Farmland Security Zone contracts

Important Farmland Trends

Using data collected by the FMMP, farmland acreage has been consistently decreasing for each two-year period since 1998¹⁰. In the 2010 FMMP analysis, Tulare County lost 17,502 acres of important farmland, and 17,748 acres of total farmland between 2008 and 2010; 13,815 acres of important farmland, and 14,216 acres of total farmland between 2010 and 2012; and 17,441 acres of important farmland, and 17,678 acres of total farmland between 2012 and 2014.¹¹ However; as noted earlier, during 2014-2016, Tulare County gained 1,469 acres of important farmland and 270 acres of Unique Farmland, but also lost 278 acres of Prime Farmland for a net reduction of 1,079 total acres of agricultural land (including 27 acres of grazing land).¹²

“For Tulare County and the surrounding region, the reported major cause of this conversion is the downgrading of important farmlands to other agricultural uses (e.g., such as expanded or new livestock facilities, replacing irrigated farmland with non-irrigated crops, or land that has been fallow for six years or longer).”¹³

Forest Lands

“Timberlands that are available for harvesting are located in the eastern portion of Tulare County in the Sequoia National Forest. Hardwoods found in the Sequoia National Forest are occasionally harvested for fuel wood, in addition to use for timber production. Since most of the timberlands are located in Sequoia National Forest, the U.S. Forest Service has principal jurisdiction, which encompasses over 3 million acres. The U.S. Forest Service leases these federal lands for timber harvests.”¹⁴

As the proposed Project is located on the Valley floor, there is no timberland or forest in the Project vicinity.

Regulatory Setting

Federal

Federal regulations for agriculture and forest resources are not relevant to this project because it is not a federal undertaking (the Project site is not located on lands administered by a federal agency, and the Project applicant is not requesting federal funding or any federal permits).

⁸ California Land Conservation Act of 1965 2016 Status Report. December 2016. Pages 38 and 42. Accessed May 2020 at:

https://www.conservation.ca.gov/dlrp/wa/Documents/stats_reports/2016%20LCA%20Status%20Report.pdf

⁹ Ibid.

¹⁰ California Department of Conservation, Division of Land Resource Protection, “Williamson Act Status Report (2010)”. Page 14. Accessed May 2020 at: https://www.conservation.ca.gov/dlrp/wa/Documents/stats_reports/2016%20LCA%20Status%20Report.pdf

¹¹ Tulare County Land Use Conversion Tables 2008-2010, 2010-2012, and 2012-2014. Table A-44, Part III. Accessed at May 2020 at: <http://www.conservation.ca.gov/dlrp/fmmp/Pages/Tulare.aspx>.

¹² Tulare County Land Use Conversion Tables 2014-2016. Table A-44, Part I. Accessed at May 2020 at: <https://www.conservation.ca.gov/dlrp/fmmp/Pages/Tulare.aspx>. Accessed May 2020.

¹³ Tulare County General Plan 2030 Update Recirculated Draft EIR (SCH # 2006041162). Page 3.10-6. And, Tulare County General Plan 2030 Update Background Report. Page 4-25.

¹⁴ Ibid. 4-20.

State

California Environmental Quality Act (CEQA) Definition of Agricultural Lands

Public Resources Code Section 21060.1 defines “agricultural land” for the purposes of assessing environmental impacts using the FMMP. The FMMP was established in 1982 to assess the location, quality, and quantity of agricultural lands and the conversion of these lands. The FMMP serves as a tool to analyze agricultural land use and land use changes throughout California. As such, this Project is being evaluated using the FMMP pursuant to CEQA.

California Department of Conservation, Division of Land Resource Protection

The California Department of Conservation (DOC) applies the Natural Resources Conservation Service (NRCS) soil classifications to identify agricultural lands. These agricultural designations are used in planning for the present and future of California’s agricultural land resources. Pursuant to the DOC’s FMMP, these designated agricultural lands are included in the Important Farmland Maps (IFM). As noted earlier the FMMP was established in 1982 to assess the location, quality and quantity of agricultural lands, and the conversion of these lands. The FMMP serves as tool to analyze agricultural land use and land use changes throughout California. The DOC has a minimum mapping unit of 10 acres, with parcels that are smaller than 10 acres being absorbed into the surrounding classifications.

The following list provides a comprehensive description of all the categories mapped by the DOC. Collectively, lands classified as Prime Farmland, Farmland of Statewide Importance, and Unique Farmland are referred to as Farmland.¹⁵

- Prime Farmland. Farmland that has the best combination of physical and chemical features able to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
- Farmland of Statewide Importance. Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
- Unique Farmland. Farmland of lesser quality soils used for the production of the State’s leading agricultural crops. This land is usually irrigated, but may include non-irrigated groves or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.
- Farmland of Local Importance. Land of importance to the local agricultural economy as determined by each county’s board of supervisors and a local advisory committee.
- Grazing Land. Land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen’s Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. The minimum mapping unit for Grazing Land is 40 acres.
- Urban and Builtup Land. Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, institutional, public administrative purposes, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.
- Other Land. Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines and borrow pits; and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

California Land Conservation Act (Williamson Act)

The Williamson Act, also known as the California Land Conservation Act of 1965, enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments which are much lower than normal because they are based upon farming and open space uses as opposed to full market value. The Department of Conservation assists all levels of government, and landowners in the interpretation of the Williamson Act related government code. The Department also researches, publishes and disseminates information regarding the policies, purposes, procedures, and administration of the Williamson Act according to government code. Participating counties and cities are required to establish their own rules and regulations regarding implementation of the Act within their jurisdiction. These rules include but are not limited to: enrollment guidelines, acreage minimums, enforcement procedures, allowable uses, and compatible uses.¹⁶

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
<p>Williamson Act Contracts are formed between a county or city and a landowner for the purpose of restricting specific parcels of land to agricultural or related open space use. Private land within locally-designated agricultural preserve areas are eligible for enrollment under a contract. The minimum term for contracts is ten years. However, since the contract term automatically renews on each anniversary date of the contract, the actual term is essentially indefinite. Landowners receive substantially reduced property tax assessments in return for enrollment under a Williamson Act contract. Property tax assessments of Williamson Act contracted land are based upon generated income as opposed to potential market value of the property.¹⁷</p> <p><u>Forestry Resources</u></p> <p>State regulations regarding forestry resources are not relevant to the proposed project because no forestry resources exist at the Project site.</p> <p><i>Local</i></p> <p><u>County of Tulare</u></p> <p>On February 26, 2013, per Resolution No. 2013-0104, Tulare County adopted a two-level review process for evaluating the siting of public and private utility structures on agricultural zoned land to analyze potential agricultural conversion impacts. The first level of review pertains to all agricultural zoned lands, while the second level applies to lands under Williamson Act contract. Level II states that a project should adhere to all the criteria noted in Level I.</p> <p>Level I: Agricultural Zoned Lands</p> <ul style="list-style-type: none"> a) Public and private utility structures on lands other than irrigated prime farmland, as defined in Level 1, Section C, may be permitted subject to findings and conditions. Desired locations include marginal or impaired lands, land with insufficient water supplies for viable agricultural production or in the UDB, UAB, HOB areas of the County for agricultural buffers. The Project is consistent with the “other than irrigated prime farmland” criterion because the 45.9 acres (30.5 percent) of the project site historically mapped as Prime Farmland will not be permanently removed as agricultural acreage, it is being re-purposed for an anticipated 35-year timeframe thereby preserving the land for future cropland use. b) Should be in proximity to the electrical grid/corridor/electrical substation or end user. The proposed Project will connect with the nearby PG&E Olive substation one (1.0) mile north of the Project site via a new transmission line. The interconnection line will be located along utility easements on private property and non-maintained County roads. c) Should not support, unless a unique proposal is approved by the Board of Supervisors, the siting of public and private solar utility structures located outside of UDB, UAB, HOB areas of the County on irrigated prime farmland as defined by any of the following criteria: <ul style="list-style-type: none"> i. Identified as Prime farmland by the FMMP. Approximately 40 acres (14.4 percent) of the Project site is considered Prime Farmland by the FMMP, and 237 acres (85.6 percent) rated as Farmland of Statewide Importance. ii. Identified as Class I Soil by the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS). The Project site is considered to be impaired farmland due to the predominance of poor quality soils. The NRCS Non-Irrigated Land Capability Classification System evaluates the suitability of soils for most types of field crops. Soils are then grouped in capability classes that describe the limitations that the soil class might present for crop cultivation. The Class groups are numbered from 1 through 8 (USDA/NRCS, 2018). The capability classes of the soil types of the Project site are presented below in Table AG-1. Nahrub and Westcamp loam soils make up approximately 317 acres, or 99% of the soils within the entire Project site and are 					

¹⁵ California Department of Conservation. FMMP – Important Farmland Map Categories. <ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2016/>; then select tul16_no. pdf Accessed May 2020.

¹⁶ California Department of Conservation. Williamson Act Program. <https://www.conservation.ca.gov/dlrp/wa>. Site accessed May 2019.

¹⁷ <https://www.conservation.ca.gov/dlrp/wa/Pages/contracts.aspx> Site accessed May 2019.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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rated as “Farmland of Statewide Importance”. As described by the USDA/NRCS, un-irrigated soils are not considered as Prime Farmland and are thus classified as Farmland of Statewide Importance. Of the 250 acres of the site which will be developed to solar, 17 acres (6.8%) have a California Storie Value of 24, while the remaining 237 acres (93.2%) have a Value of 6. According to the USDA/NRCS, Nahrub soils have a non-irrigated rating of 6 meaning that these soils have severe limitations that make them *generally unsuitable* for cultivation and that restrict their use mainly to pasture, range, forest land, or wildlife habitat.); while Westcamp soils have a rating of 4 meaning that these soils have severe limitations that make them *unsuitable* for cultivation and that restrict their use mainly to pasture, range, forest land, or wildlife habitat.¹⁸ The remaining approximately 3 acres are not rated as they serve as an irrigation ditch.

TABLE AG-1 SOIL INFORMATION FOR ANGELA SOLAR PROJECT SITE				
Map Unit Symbol	Map Unit Name	Non-Irrigated Capability Class	Rating Grade	Acreage/Site Percentage
129	Nahrub silt loam, overwashed, 0 to 1% slopes	6s	6 Non-agricultural (10 or less)	300 acres/94%
140	Westcamp silt loam, 0 to 2% slopes	7w	4 Poor (21-40)	17 acres/5%
145	Water-perennial (irrigation ditch)	N/A	N/A	3 acres/1%
<p>Source: USDA/NRCS 2020 accessed at: https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx</p> <p>Note: * Of the 320 total acres; the Project will utilize 277 acres with 250 acres to be used for solar panels. Figures are rounded.</p>				

As shown in **Table AG-2**, all soils within the Project site have a Non-Irrigated Capability Class of 4 meaning that the soils “have severe limitations that reduce the choice of plants or that require very careful management, or both” (USDA, 2020).

- iii. Land having been actively farmed in permanent crops at least one year during the past ten years. The land has been planted to row crops. Therefore, solar development of the site does not require removal of any permanent crops (such as orchards or vineyards)
- d) Should not support the removal of permanent crops when there is sufficient water available for continued crop production on lands outside of UDB, UAB and HOB areas of the County regardless of soil capability classification. As noted earlier, the Project site has been planted to row crops and would not result in the removal of permanent crops. Further, the Applicant estimates that 16,000-32,000 gallons (or 0.050 – 0.10 ac. feet) per year would be used to wash solar panels, which is less water per year than row crops would use.
- e) Identify sources of water not limited to well, irrigation canal, water transfer and conduct water availability analysis demonstrating either (1) the insufficiency of adequate water supplies for continued crop production, or (2) the infeasibility of continued agricultural activities on the subject property. This analysis must include input from the water district, or other water authority. The proposed Project is not supplied by, or located within, any urban water management planning area. Nor is it located within any agricultural or urban water districts, or other public or private utilities that deliver water to the end user. The Project would import water via trucks to supply water as necessary (that is, to supply watering trucks used to minimize dust during construction-related activities and for solar panel washing approximately two times per year).

¹⁸ United States Department of Agriculture Natural Resource Conservation Service. Accessed May 2020 at: <https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
f)	<p>Analyze the potential negative impacts on neighboring farming operations and mitigate for those impacts including, but not limited, to increases in invertebrate and vertebrate pest and invasive plant species. The Mitigation Monitoring Reporting Program (MMRP) will mitigate potential negative impacts as identified in this Initial Study. Also, conditions of approval will require removal of combustible material from the site; the submission of a soil reclamation plan; fencing; dust management; on-site parking; etc. These measures will ensure impacts on neighboring farm operations will be less-than-significant. Therefore, the proposed Project is consistent with the “neighboring farming operations” criterion.</p> <p>g) Should not impede or reduce the productive agricultural capacity of the land for future uses. Thus, reclamation of the land to its previous agricultural condition is crucial and appropriate financial assurances are essential. The proposed solar facility represents a conversion of farmland with a life of approximately 35 years. It is unknown at this time if the solar facility may extend beyond 35 years. As a condition of approval, a Reclamation Plan would be submitted as a part of the permit application materials. This Reclamation Plan would provide financial assurances along with a detailed plan to remediate soils and return the land to its original pre-construction condition upon termination of the Project.</p> <p>As described in the Project Description, the proposed life of the Project is 35 ears. The Applicant would finalize and submit to the County for approval, a Decommissioning and Reclamation Plan, and attendant bond. The Decommissioning and Reclamation Plan would include the methods for removing all solar panels, demolishing and removing all support racks and structures, and removal of all infrastructure (road, foundations), which is assured according to the lease agreement with the property owner and through the agreement on and posting of a reclamation bond with the County.</p> <p>The Project site is generally flat and would require little to no grading. The Decommissioning and Reclamation Plan would include a summary of specific measures to restore the soil to its pre-Project condition, including removal of all fixtures, equipment, non-agricultural roads, and restoration of compacted soil. Reclamation would be completed within 120 days of the expiration of the County special use permit. The modules and ancillary materials would be sold and reused or recycled to minimize impact on the environment.</p> <p>At the time of re-use, the zoning/land use designations will be used to determine the Project site’s highest and best use. As a result, the Project would result in a less than significant impact on this item.</p> <p>h) Require developer agreements that include cost recovery, loss of crop production and/or subvention funds, removal of facility and reclamation requirements, and other Tulare County financial incentives. A condition of approval will require the Project proponent to enter into the “Developer Agreement and Reclamation Plan for the Solar Photovoltaic Electric Generating Facility”, adopted on August 31, 2010 by Board of Supervisors Resolution 2010-0717. Therefore, the proposed Project is consistent with the “developer agreement” criterion.</p> <p>i) Require Sales and Use Tax Agreements to maximize capture of sales and use tax revenue. A condition of approval will require the Project proponent to enter into the “Agreement For Allocation of Sales and Use Tax Revenues and Limitations on Transfer of the Project to Nontaxable or Tax Exempt Entities”, adopted by the Board of Supervisors on February 28, 2012 by Resolution 2012-0187. Therefore, the proposed project is consistent with the “Sales and Use Tax Agreements” criterion.</p> <p>Level II: Agricultural Zoned Lands Under Williamson Act Contracts</p> <p>a) Adhere to all criteria noted in Level I to be completed. Please see above.</p> <p>b) Review Resolution No. 89-1275 - Uniform Rules for Agricultural Preserves - and Resolution No. 99-0620 establishing Rules for Farmland Security Zones to insure compatibility. The Tulare County Board of Supervisors defined allowable uses on contracted lands in Resolution No. 89-1275, which established Uniform Rules for Agricultural Use. Resolutions No. 89-1275 and No. 99-0620 established the construction of gas, electric, water, and community utility facilities as compatible uses for lands under a Williamson Act Contract. Public and private utility structures were determined to be a compatible use on lands under Williamson Act Contract with Resolution No 2010-0717. Under Resolution No. 2010-0590, the Tulare County Board of Supervisors determined that solar generating facilities are a compatible use in Exclusive Agriculture Zone Districts subject to conditions of approval set forth in Special Use Permits.</p>				

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
	<p>c) Review Williamson Act Contract Contents to insure compatibility. Williamson Act – Land Conservation Contracts Nos. 3528 and 3529 were recorded February 2, 1970 (Box 2879, Pages 227 and 232, respectively). The Tulare County Board of Supervisors defined allowable uses on contracted lands in Resolution No. 89-1275, which established Uniform Rules for Agricultural Use. Resolutions No. 89-1275 and No. 99-0620 established the construction of gas, electric, water, and community utility facilities as compatible uses for lands under a Williamson Act Contract. Public and private utility structures were determined to be a compatible use on lands under Williamson Act Contract with Resolution No 2010-0717. Under Resolution No. 2010-0590, the Tulare County Board of Supervisors determined that solar generating facilities are a compatible use in Exclusive Agriculture Zone Districts subject to conditions of approval set forth in Special Use Permits. The proposed Project is therefore compatible with the Williamson Act contracts applicable to the Project site.</p> <p>a) Less Than Significant Impact: As noted earlier, the Tulare County Board of Supervisors (Board) approved Resolution No. 2013-0104 on February 26, 2013, whereby Tulare County adopted a two-level review process for evaluating the siting of public and private utility structures on agricultural zoned land to analyze potential agricultural conversion impacts. As indicated above, this Project is consistent with the Board adopted resolutions. As such, the Project would not result in the Conversion of 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. Upon ultimate decommissioning of the site, it will be reclaimed to the extent that agricultural production may be re-initiated. Implementation of the site's Reclamation Plan would result in a less than significant impact to this resource.</p> <p>b) Less Than Significant Impact: The Project site is zoned AE-80 (Exclusive Agriculture- 80 acre minimum); however, the parcels pre-date the zoning classification and are less than 80 acres. Additionally, two parcels, APNs 330-100-045 and 330-100-046, are under a Williamson Act Contract. The Williamson Act enables local governments to enter into contracts with private landowners that restrict land use to agricultural or related uses in return for lower property tax assessments. Local governments are responsible for the implementation of this program; therefore, the rules that determine compatible uses within a contract vary by jurisdiction. As noted earlier, The Tulare County Board of Supervisors defined allowable uses on contracted lands in Resolution No. 89-1275, which established Uniform Rules for Agricultural Use. Resolutions No. 89-1275 and No. 99-0620 established the construction of gas, electric, water, and community utility facilities as compatible uses for lands under a Williamson Act Contract. Public and private utility structures were determined to be a compatible use on lands under Williamson Act Contract with Resolution No 2010-0717. Under Resolution No. 2010-0590, the Tulare County Board of Supervisors determined that solar generating facilities are a compatible use in Exclusive Agriculture Zone Districts subject to conditions of approval set forth in Special Use Permits.</p> <p>Resolutions 2010-0717 and 2013-0104 subsequently created a two-level process through which solar facility projects can be found as a compatible use on Williamson Act Contracted lands. This allows impaired agricultural lands to be put to the highest and best use without cancelling the Williamson Act Contract, therefore preserving the option to return to farming the land in the future. Pending the approval of the Special Use Permit for the proposed Project and the approval of findings of compatibility under the Williamson Act, the Project would present a temporary change in land use that has been found to be compatible with the terms of the existing Williamson Act contract on the Project site. Therefore, the proposed Project would not conflict with existing zoning or a Williamson Act Contract and no impact would occur.</p> <p>c and d) No Impact: The Project will not occur on land zoned as forest land or timberland, or result in a loss of forest land. As such, the Project would not conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources code 12220(g)), timberland (as defined in Public Resource Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)).</p> <p>e) No Impact: The Project site is not located near land zoned as forest land or timberland and therefore would not result in any changes in the environment that might convert forest land to non-forest land. The proposed Project would result in the use of approximately 250 acres of farmland (predominantly used for row crops and grazing) to a non-agricultural use for approximately 35 years. However, as discussed earlier, this conversion is planned as temporary and in accordance with existing land use policies and regulations. Land surrounding the Project site is a mix of vacant land, agriculturally productive lands, an adjacent solar project, and scattered rural residences. As discussed in the Project Description, construction-, operation-, maintenance-, and decommissioning-related activities would take place within Project site boundaries. The proposed Project is not anticipated to involve changes to the environment that are different than impacts to the environment from agricultural production. Additionally, during construction- and decommissioning-related activities, Best Management Practices such as</p>				

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
<p>erosion prevention measures and dust-minimization measures (including those required by the San Joaquin Valley Air Pollution Control District) would be employed to limit the impact of the proposed Project on adjacent properties. Maintenance activities during Project operation would be minimal and limited to maintenance of facility components and washing the panels periodically. Therefore, no other changes to the environment are anticipated that could result in the conversion of farmland to non-farmland. There would be no impact on this item.</p>					
3.	AIR QUALITY				
Where available, the significance criteria established by the applicable air quality management district 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 checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c)	Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>
<p>Analysis:</p> <p>Environmental Setting</p> <p>The proposed Project is located in the San Joaquin Valley Air Basin (SJVAB), a continuous inter-mountain air basin. The Sierra Nevada Range forms the eastern boundary; the Coast Range forms the western boundary; and the Tehachapi Mountains form the southern boundary. These topographic features restrict air movement through and beyond the SJVAB. The SJVAB is comprised of San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, and Tulare Counties and the valley portion of Kern County; it is approximately 25,000 square miles in area. Tulare County lies within the southern portion of the SJVAB. Air resources in the SJVAB is managed by the San Joaquin Valley Air Pollution Control District (Air District).</p> <p>Regulatory Setting</p> <p>Both the federal government (through the United State Environmental Protection Agency (EPA)) and the State of California (through the California Air Resources Board (ARB)) have established health-based ambient air quality standards (AAQS) for six air pollutants, commonly referred to as “criteria pollutants.” The six criteria pollutants are: carbon monoxide (CO), ozone (O₃), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), particulate matter (PM₁₀ and PM_{2.5}), and lead (Pb).</p> <p>Federal</p> <p>National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) have been established for each criteria pollutant to protect the public health and welfare. The federal and state standards were developed independently with differing purposes and methods, although both processes are intended to avoid health-related effects. As a result, the federal and state standards differ in some cases. In general, the California state standards are more stringent.</p> <p>The Federal Clean Air Act requires EPA to set NAAQS for the six criteria pollutants, noted above, that occur throughout the United States. Of the six pollutants, particle pollution and ground-level ozone are the most widespread health threats. EPA regulates the criteria pollutants by developing human health-based and/or environmentally-based criteria (science-based guidelines) for setting permissible levels. The set of limits based on human health is called primary standards. Another set of limits intended to prevent environmental and property damage is called secondary standards.</p>					

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
<p>EPA is required to designate areas as meeting (attainment) or not meeting (nonattainment) the air pollutant standards. The Federal Clean Air Act (CAA) further classifies nonattainment areas based on the severity of the nonattainment problem, with marginal, moderate, serious, severe, and extreme nonattainment classifications for ozone. Nonattainment classifications for PM range from marginal to serious. The Federal CAA requires areas with air quality violating the NAAQS to prepare an air quality control plan referred to as the State Implementation Plan (SIP). The SIP contains the strategies and control measures that states will use to attain the NAAQS. The Federal CAA amendments of 1990 require states containing areas that violate the NAAQS to revise their SIP to incorporate additional control measures to reduce air pollution. The SIP is periodically modified to reflect the latest emissions inventories, planning documents, rules, and regulations of Air Basins as reported by the agencies with jurisdiction over them. The EPA reviews SIPs to determine if they conform to the mandates of the Federal CAA amendments and will achieve air quality goals when implemented. If the EPA determines a SIP to be inadequate, it may prepare a Federal Implementation Plan (FIP) for the nonattainment area and impose additional control measures.</p> <p>The SJVAB is considered to be in attainment for federal and state air quality standards for carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂); attainment for federal and non-attainment for state air quality standards for respirable particulate matter (PM₁₀); and non-attainment of state and federal air quality standards for ozone (O₃) and fine particulate matter (PM_{2.5}). To meet federal Clean Air Act requirements, the Air District has adopted the following attainment plans: the 2004 Extreme Ozone Attainment Demonstration Plan (for the 1-hour standard); the 2007 Ozone Plan (for the 1997 8-hour standard); the 2009 RACT SIP; the 2013 Plan for the Revoked 1-Hour Ozone Standard; the 2014 RACT SIP; the 2016 Plan for the 2008 8-Hour Ozone Standard; the 2007 PM₁₀ Maintenance Plan; the 2008 PM_{2.5} Plan (for the 1997 annual standard); the 2012 PM_{2.5} Plan (for the 2006 24-hour standard); the 2015 Plan for the 1997 PM_{2.5} Standard (for annual and 24-hour standards); and the 2004 Revision to the California State Implementation Plan for Carbon Monoxide. The State does not have an attainment deadline for the ozone standards; however, it does require implementation of all feasible measures to achieve attainment at the earliest date possible. State PM₁₀ and PM_{2.5} standards have no attainment planning requirements, but must demonstrate that all measures feasible for the area have been adopted.</p> <p>It is reiterated that the Project does not contain a development proposal; rather, the Project is a tentative parcel map. Until such time a development proposal is submitted for processing with the County of Tulare, the Project will not result in a physical change in the environment. In the event development proposals were to occur, the proposals could be subject to various San Joaquin Valley Air Pollution Control District (Air District) rules/regulations, thresholds, and/or permitting requirements, as applicable. As indicated below, the mere size of the project (i.e., three potential rural residential sites) would not result in the exceedance of any Air District thresholds and, depending upon a final determination by the Air District, does not appear to meet rule applicability requirements.</p> <p>State</p> <p>The California Air Resources Board (CARB or ARB) is the state agency responsible for implementing the federal and state Clean Air Acts. ARB has established California Ambient Air Quality Standards (CAAQS), which include all criteria pollutants established by the NAAQS, but with additional regulations for Visibility Reducing Particles, sulfates, hydrogen Sulfide (H₂S), and vinyl chloride.</p> <p>The Project is located within the San Joaquin Valley Air Basin, which includes San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and parts of Kern counties and is managed by the San Joaquin Valley Air Pollution Control District (SJVAPCD or Air District).</p> <p>Air basins are designated as attainment or nonattainment. Attainment is achieved when monitored ambient air quality data is in compliance with the standards for a specified pollutant. Non-compliance with an established standard will result in a nonattainment designation and an unclassified designation indicates insufficient data is available to determine compliance for that pollutant.</p> <p>Standards and attainment status for listed pollutants in the Air District can be found in Table AQ-1. Note that both state and federal standards are presented.</p>					

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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**Table AQ-1
SJVAB Attainment Status**

	Designation/Classification	
Pollutant	Federal Standards	State Standards
Ozone – one hour	No Federal Standard ¹	Nonattainment/Severe
Ozone – eight hour	Nonattainment/Extreme ²	Nonattainment
PM ₁₀	Attainment ³	Nonattainment
PM _{2.5}	Nonattainment ⁴	Nonattainment
CO	Attainment/Unclassified	Attainment/Unclassified
Nitrogen Dioxide	Attainment/Unclassified	Attainment
Sulfur Dioxide	Attainment/Unclassified	Attainment
Lead	No Designation/Classification	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Sulfates	No Federal Standard	Attainment
Vinyl Chloride	No Federal Standard	Attainment
Visibility Reducing Particles	No Federal Standard	Unclassified
<p>¹ Effective June 15, 2005, the U.S. EPA revoked the federal 1-hour ozone standard, including associated designations and classifications. However, EPA had previously classified the SJVAB as extreme nonattainment for this standard. Many applicable requirements for extreme 1-hour ozone nonattainment areas continue to apply to the SJVAB.</p> <p>² Though the Valley was initially classified as serious nonattainment for the 1997 8-hour ozone standard, EPA approved Valley reclassification to extreme nonattainment in the Federal Register on May 5, 2010 (effective June 4, 2010)</p> <p>³ On September 25, 2008, EPA redesignated the San Joaquin Valley to attainment for the PM₁₀ National Ambient Air Quality Standard (NAAQS) and approved the PM₁₀ Maintenance Plan.</p> <p>⁴ The Valley is designated nonattainment for the 1997 PM_{2.5} NAAQS. EPA designated the Valley as nonattainment for the 2006 PM_{2.5} NAAQS on November 13, 2009 (effective December 14, 2009).</p> <p>Source: San Joaquin Valley Unified Air Pollution Control District. Ambient Air Quality Standards & Valley Attainment Status. http://www.valleyair.org/aqinfo/attainment.htm. Accessed April 2019.</p>		

Local

San Joaquin Valley Air Pollution Control District

The Air District is the local agency charged with preparing, adopting, and implementing mobile, stationary, and area air emission control measures and standards. The Air District has several rules and regulations that may apply to the Project, following is an example of those rules/regulations which likely apply to this Project:

- Rule 3135 (Dust Control Plan Fees) – This rule requires the project applicant to submit a fee in addition to a Dust Control Plan. The purpose of this rule is to recover the Air District's cost for reviewing these plans and conducting compliance inspections.
- Rule 4101 (Visible Emissions) – This rule applies to any source of air contaminants and prohibits the visible emissions of air contaminants.
- Rule 4102 (Nuisance) – This rule applies to any source of air contaminants and prohibits any activity which creates a public nuisance.
- Regulation VIII (Fugitive PM₁₀ Prohibitions) – This regulation is a series of eight rules designed to reduce PM₁₀ emissions by reducing fugitive dust emissions. Regulation VIII requires implementation of control measures to ensure that visible dust emissions are substantially reduced.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
	<p>➤ Rule 9510 (Indirect Source Review) – This rule requires developers to mitigate project emissions through 1) on-site design features that reduce trips and vehicle miles traveled, 2) controls on other emission sources, and 3) with reductions obtained through the payment of a mitigation fee used to fund off-site air quality mitigation projects. Rule 9510 requires construction related NOx emission reductions of 20 percent and PM10 reductions of 45 percent. Rule 9510 requires a 33 percent reduction in operational NOx emissions and a 50 percent reduction in PM10. The reductions are calculated by comparing the unmitigated baseline emissions and mitigated emissions from the first year of project operation. The Air District recommends using the most recent version of the California Emissions Estimator Model (CalEEMod) to quantify project emissions and emission reductions. Rule 9510 was adopted to reduce the impacts of development on Air District’s attainment plans.</p> <p><u>Tulare County General Plan 2030 Update</u></p> <p>The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: <i>AQ-1.1 Cooperation with Other Agencies</i> requiring the County to cooperate with other local, regional, Federal, and State agencies (e.g., Valley Air District) in developing and implementing air quality plans to achieve State and federal Ambient Air Quality Standards to achieve better air quality conditions locally and regionally; <i>AQ-1.5 California Environmental Quality Act (CEQA) Compliance</i> where the County will ensure that air quality impacts identified during the CEQA review process are consistently and reasonable mitigated when feasible; <i>AQ-2.2 Indirect Source Review</i> regarding mitigating air quality impacts associated with the Project to Valley Air District’s Rule 9510; <i>AQ-3.4 Landscape</i> regarding the use of ecologically based landscape design principles that can improve local air quality by absorbing CO₂, producing oxygen, providing shade that reduces energy required for cooling, and filtering particulates; and <i>AQ-4.2 Dust Suppression Measures</i> regarding implementation of dust suppression measures during excavation, grading, and site preparation activities consistent with SJVAPCD Regulation VIII – Fugitive Dust Prohibitions.</p> <p>a) Less Than Significant Impact: Air quality plans (also known as attainment plans) and subsequent rules are used to bring the applicable air basin into attainment with federal ambient air quality standards designed to protect the health and safety of residents within that air basin. In the event development proposals were to occur following approval of the proposed Project, such developments will be required to comply with all applicable Air District rules and regulations including, but not limited to, Regulation VIII (Fugitive PM10 Prohibitions) requirements and District Rule 9510 (Indirect Source Review). The Air District’s <i>Guidance for Assessing and Mitigating Air Quality Impacts</i> (GAMAQI) states, “...the District has established thresholds of significance for criteria pollutant emissions, which are based on District New Source Review (NSR) offset requirements for stationary sources. Stationary sources in the District are subject to some of the toughest regulatory requirements in the nation. Emission reductions achieved through implementation of District offset requirements are a major component of the District’s air quality plans. Thus, projects with emissions below the thresholds of significance for criteria pollutants would be determined to “Not conflict or obstruct implementation of the District’s air quality plan.”¹⁹</p> <p>“Determination of whether a project would exceed the applicable thresholds of significance for criteria pollutants requires quantification of project specific emissions. To streamline the process of assessing significance of criteria pollutant emissions from commonly encountered projects, the District has developed the screening tool, Small Project Analysis Level (SPAL). Using project type and size, the District has pre-quantified emissions and determined a size below which it is reasonable to conclude that a project would not exceed applicable thresholds of significance for criteria pollutants.”²⁰</p> <p>Construction-, operation-, maintenance-, and decommissioning-related activities of the proposed Project would result in emissions of criteria pollutants including ozone precursors such as ROG and NOx as well as particulate matter. The Air District’s 2016 Plan for the 2008 8-Hour Ozone Standard , 2013 Plan for the Revoked 1-Hour Ozone Standard, 2007 Ozone Plan, 2007 PM10 Maintenance Plan and Request for Redesignation, 2008 PM2.5 Plan, 2012 PM2.5 Plan, 2015 Plan for the 1997 PM2.5 Standard, the 2016 Moderate Area Plan for the 2012 PM2.5 Standard, and the 2018 Plan for the 1997, 2006, and 2012 PM2.5 Standards outline a number of control strategies to help the SJVAPCD reach attainment for the revoked federal 1-hour ozone standard, the 24-hour PM₁₀ standard, and the federal and state PM_{2.5} standards, respectively.²¹ The San Joaquin Valley Air Basin is in attainment for CO, SO₂, and lead, so there are no attainment plans for those pollutants.</p>				

¹⁹ SJVAPCD, Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI), Page 65. www.valleyair.org/transportation/GAMAQI_3-19-15.pdf

²⁰ Ibid. 85

²¹ SJVAPCD Attainment Plans are available online at http://valleyair.org/Air_Quality_Plans/air-quality-plans.htm.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
<p>Control measures outlined in the ozone plans focus primarily on control of stationary and indirect sources such as housing and commercial developments that may generate substantial vehicle trips during operations. The primary source of criteria pollutant emissions generated by the proposed Project would be associated with construction-related activities; operation of the proposed Project would require only minor use of equipment and generate a very small number of vehicle trips required to perform routine maintenance and PV panel washing. Therefore, the proposed Project would not create a permanent substantial source of ozone precursor emissions, and would not obstruct implementation of the SJVAPCD's ozone attainment plan.</p> <p>The 2008 PM_{2.5} Plan, 2012 PM_{2.5} Plan, and 2015 Plan for the 1997 PM_{2.5} Standard focus specifically on PM_{2.5}, although the control strategies from previous PM₁₀ plans (particularly those related to fugitive dust control) have already improved the SJVAB ambient PM_{2.5} levels. Therefore, because fugitive dust controls continue to be addressed in the PM₁₀ plan, the plans contain a comprehensive list of strict regulatory and incentive-based measures to reduce directly-emitted PM_{2.5} and precursor emissions. However, the Project would result in relatively negligible PM_{2.5} emissions from those types of sources, with the vast majority of PM_{2.5} emissions associated with the Project arising from the PM_{2.5} component of fugitive dust.</p> <p>The Air District has determined that projects with emissions below the thresholds of significance for criteria pollutants would not conflict or obstruct implementation of the Air District's air quality plan. As discussed below with respect to item b), unmitigated emissions during construction-related activities would not exceed the Air District significance thresholds. The Project would be required to comply with applicable Air District rules and regulations, such as Regulation VIII (Fugitive PM₁₀ Prohibitions) and Rule 9510 (Indirect Source Review), further reducing Project-related emissions.</p> <p>Consistent with Air District Indirect Source Review (ISR) requirements and District policy on CEQA compliance, construction emissions have been estimated (using CalEEMod, Version 2016.3.2) from a similar solar project and are used in this document by analogy as similar projects will likely result in similar emissions. This Project is smaller than the comparative project and will likely generate fewer emissions.²² The model was used to quantify annual construction-related activities ROG, NO_x, CO, SO₂, PM_{2.5} and PM₁₀ emissions from off-road equipment, haul trucks, on-road worker vehicle emissions, and vendor delivery trips. Since CalEEMod does not contain a Solar Array Land use type, a user defined industrial land use type was used to estimate on-site construction emissions. Construction phasing and off-road equipment estimates were based on information provided by the Project applicant. The annual construction-related emissions can be found in Table AQ-2; modeling outputs can be found in Attachment "A".</p> <p>Implementation of the proposed Project would result in a renewable energy resource that would generate no direct emissions of criteria air pollutants. Indirect on- and off-site emissions of criteria pollutants associated with proposed Project operation would be generated as a result of employee trips related to maintenance and periodic PV panel washing activities. The proposed Project site would be monitored remotely 24-hours a day, seven days a week. Visits to the site for emergency purposes/upset events would likely, if at all, occur infrequently (i.e., only a few times per year).</p> <p>The contribution of a project's individual air emissions to regional air quality impacts is, by its nature, a cumulative effect. Emissions from past, present, and future projects in the region also have or will contribute to adverse regional air quality impacts on a cumulative basis. No single project by itself would be sufficient in size to result in non-attainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulative air quality conditions. The project-level thresholds for criteria air pollutants are based on levels by which new sources are not anticipated to contribute to an air quality violation or result in a considerable net increase in criteria air pollutants.</p> <p>As shown in Tables AQ-2 and AQ-3, the estimated Project emissions will not exceed the Air District's CEQA significance thresholds for any pollutants. This determination is based on comparing a previously approved Project's (Deer Creek Solar) emissions to the proposed Project. As air emissions are linear by nature, this Project is approximately 75 percent the size of Deer Creek Solar and, as such, it would emit 75 percent less emissions than Deer Creek Solar. Attachment "A" includes the modeling results from Deer Creek Solar.</p>					

²² See Attachment "A". These emissions estimates were derived from another solar energy project in Tulare County (Deer Creek Solar) that is approximately 1.36 times greater in acreage (i.e., 378 acres vs. this Project's 277 acres) and construction time frame (12-months vs. this Project's 6-9 total months). The Deer Creek Solar Project emissions analysis can also be found in the MND prepared for the Deer Creek Solar Project, which is available on the County's website at <https://tularecounty.ca.gov/rma/index.cfm/planning-building/environmental-planning/mitigated-negative-declarations/deer-creek-solar-project/>.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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TABLE AQ-2 PROJECT CONSTRUCTION EMISSIONS ESTIMATES (MITIGATED)						
Construction Year	Estimated Emissions, unmitigated tons per year					
	ROG	NO _x	CO	SO ₂	Total PM ₁₀	Total PM _{2.5}
2020	0.1644	3.4574	4.6523	0.0098	0.2961	0.1238
SJVAPCD Thresholds	10	10	100	27	15	15
Threshold Exceeded	No	No	No	No	No	No
<i>See Attachment "A" of this document.</i>						

TABLE AQ-3 PROJECT OPERATION AND MAINTENANCE EMISSIONS ESTIMATES (MITIGATED)						
Construction Year	Estimated Emissions, unmitigated tons per year					
	ROG	NO _x	CO	SO ₂	Total PM ₁₀	Total PM _{2.5}
2020	0.0019	0.0056	0.0300	.0001	0.0079	0.0021
SJVAPCD Thresholds	10	10	100	27	15	15
Threshold Exceeded	No	No	No	No	No	No
<i>See Attachment "A" of this document.</i>						

According to the Air District's GAMAQI, a project would be considered to contribute considerably to a significant cumulative impact if it would result in an increase in ROG, NO_x, SO₂, CO, PM₁₀, or PM_{2.5} of more than its respective significance thresholds. As presented in **Tables AQ-2** and **AQ-3**, proposed Project construction- and operational-related activities emissions would not exceed the annual SJVAPCD thresholds of significance for ROG, NO_x, SO₂, CO, PM₁₀, and PM_{2.5}. Therefore, this Project would result in a less than significant impact.

- b) Less Than Significant Impact:** As discussed earlier at item a), the Air Basin is currently designated as non-attainment for the 1-hour state ozone standard as well as for the federal and state 8-hour standards. Additionally, the Air Basin is designated as non-attainment for the state 24-hour and annual arithmetic mean PM₁₀ standards, as well as the state annual arithmetic mean and the national 24-hour PM_{2.5} standards. See **Table AQ-1** for designations and classifications of all criteria pollutants.

The contribution of a project's individual air emissions to regional air quality impacts is, by its nature, a cumulative effect. Emissions from past, present, and future projects in the region also have or will contribute to adverse regional air quality impacts on a cumulative basis. No single project by itself would be sufficient in size to result in non-attainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulative air quality conditions. The project-level thresholds for criteria air pollutants are based on levels by which new sources are not anticipated to contribute to an air quality violation or result in a considerable net increase in criteria air pollutants.

According to the Air District's GAMAQI, a project would be considered to contribute considerably to a significant cumulative impact if it would result in an increase in ROG, NO_x, SO₂, CO, PM₁₀, or PM_{2.5} of more than its respective significance thresholds (SJVAPCD, 2015). As presented in **Tables AQ-2** and **AQ-3**, proposed Project construction- and operational-related activities emissions would not exceed the annual SJVAPCD thresholds of significance for ROG, NO_x, SO₂, CO, PM₁₀, and PM_{2.5}. Therefore, this Project would result in a less than significant impact.

- c) Less Than Significant Impact:** Diesel particulate matter (DPM) represents the primary toxic air contaminants (TAC) of concern associated with the proposed Project. DPM emissions are primarily the result of the operation of internal combustion engines in equipment (e.g., loaders, backhoes, and cranes, as well as haul trucks) commonly associated with construction-related activities. Since activities associated with the operation-related activities of the proposed Project would result in short-term, temporary, and intermittent use of mobile or stationary sources of DPM (e.g., maintenance workers driving to and from the

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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Project site, and the occupational use of off-road equipment to move equipment), operation-related activities of the proposed Project would not expose nearby sensitive receptors to DPM emissions that would result in a health risk. Therefore, health risks associated only with proposed Project construction-related activities are evaluated below.

The dose to which receptors are exposed is the primary factor affecting health risk from TACs. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. According to the State of California Office of Environmental Health Hazard Assessment (OEHHA), health risk assessments (which determine the exposure of sensitive receptors to TAC emissions), should be based on 9, 30, and/or 70-year exposure periods when assessing TACs (such as DPM) that have only cancer or chronic non-cancer health effects. However, such health risk assessments should be limited to the duration of the emission-producing activities associated with the Project, unless the activities occur for less than 6-months. Activities that would last more than 2-months, but less than 6 months, are recommended to be evaluated as if they would last for 6-months. The OEHHA does not recommend assessing cancer risk for projects lasting less than 2-months near the maximum exposed individual resident (MEIR). Since construction-related activities of the proposed Project would occur over a 6-to-9 month period and the nearest sensitive receptors (property owners who are leasing the land to accommodate the Project and are upwind of the Project) are located within 200 feet from the proposed Project's northern boundary, the proposed Project has the potential to temporarily and intermittently expose off-site sensitive receptors to increased criteria pollutant emission concentrations from diesel powered construction-related equipment during the short-term, temporary construction-related phase.

The Air District recommends conducting a screening analysis for projects that have the potential to expose sensitive receptors to TAC emissions (e.g. DPM during project construction-related activities) that could pose a significance health risk. The SJVAPCD has devolved a prioritization tool to evaluate whether a Health Risk Assessment (HRA) should be prepared, which is based on the California Air Pollution Control Officers Association's (CAPCOA) latest methodology and OEHHA guidance. According to the Air District guidance, projects that obtain a prioritization score of 10 or more is considered to be potentially significant and an HRA should be required for the project.

The Air District's prioritization screening tool was used to evaluate the potential health risks during proposed Project construction-related activities. Similar to the discussion at Item a) above, emissions have been estimated (using the District approved Health Risk Assessment model (the HRA model)) from a similar solar project and are used in this document by analogy as similar projects will likely result in similar emissions. This Project is smaller than the comparative project and will likely generate fewer emissions.²³ The result of the analysis can be found in **Table AQ-4**, which is based on an emission rate of 37.35 pounds per year of PM₁₀ exhaust. Modeling outputs can be found in Attachment "A". As shown in **Table AQ-4**, residences within 250 meters (i.e., 820 feet) would result in a score greater than 10 as allowed by the Air District.

TABLE AQ-4 PROJECT CONSTRUCTION PRIORITIZATION SCORE		
Receptor Proximity (in meters)	Unmitigated Max Score	Mitigated Max Score
0 < R < 100	1100	86
100 < R < 250	275	22
250 < R < 500	44	3
500 < R < 1,000	12	1
1,000 < R < 1,500	3	0
1,500 < R < 2,000	2	0
2,000 < R	1	0
<i>Notes: 1. Prioritization score is based on an annual emission rate of 37.35 pounds per year emission rate, see Appendix A for modeling details. .</i>		

The operation of each piece of equipment within the proposed Project site would not be constant throughout the day and all the equipment would not operate concurrently at the same location of the proposed Project construction-related area. Again, by analogy, the use of Deer Creek Solar's emissions compared to this Project's emissions would result in 66% of Deer Creek Solar's emission (see Attachment "A"), construction-related emissions would occur in less month (6-9 months versus Deer

²³ See Attachment "A". These emissions estimates were derived from another solar energy project in Tulare County (Deer Creek Solar) that is approximately 1.36 times greater in acreage (i.e., 378 acres vs. this Project's 277 acres) and has a lengthier construction time frame (12-months vs. this Project's nearly 6-9 total months).

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT	
<p>Creek Solar’s 12 months) and sensitive receptors (scattered rural residences) would be upwind of Project emissions. To quantify the maximum prioritization score, the receptor proximity is based on the distance between the center of the proposed Project construction-related area and the nearest sensitive receptor. Similar to Deer Creek Solar, the nearest receptors are within approximately 420 meters (i.e., 1,378 feet). Using the Air District’s prioritization tool, annual emission rate of 37.35 pounds per year of PM₁₀ exhaust and a receptor proximity distance of 61 meters (200 feet), the proposed Project would obtain a score of 1,000, which would exceed the Air District’s allowed score of 10. Therefore, emissions from construction-related activities of the proposed Project could expose nearby sensitive receptor to DPM that could result in a significant health risk. However, also similar to Deer Creek Solar, implementation of Mitigation Measure AQ-1, would reduce the max score by requiring the proposed Project applicant to use Tier 4 engines for all off-road construction equipment during project construction-related activities. (see Table AQ-4) Tier 4 engines use advanced engine controls and sensors that significantly reduce engine emissions on all four constituents (NOx, HC, CO and PM). The use of Tier 4 engines would reduce DPM emissions generated by off-road equipment to a max score to 86, which exceeds the Air District’s allowed score.</p> <p>Mitigation Measure AQ-1: Engine Standards for Off-Road Equipment. In order to reduce the impact of PM₁₀ off-road equipment exhaust emissions during construction-related activities, applicant shall ensure that construction contracts stipulate that all off-road diesel-powered equipment used will be equipped with USEPA Tier 4 or cleaner engines, except for specialized equipment in which an USEPA Tier 4 engine is not available. In lieu of Tier 4 engines, project equipment can incorporate retrofits such that emissions reductions achieved equal to that of the Tier 4 engines at a minimum. The construction contractor shall submit a detailed list of the equipment fleet that demonstrates achievement of this mitigation measure to Tulare County Resource Management Agency Planning Branch for approval prior to receiving Notice to Proceed.</p> <p>As previously noted, the operation of each piece of equipment within the proposed Project site would not be constant throughout the day and all the equipment would not operate concurrently at the same location of the proposed Project construction-related area. The prioritization screening tool assumes a 70-year exposure and as such, is likely to overestimate potential health risks as Project-related construction activities will be completed within nine months (or 1% of the exposure time utilized by the tool). Although the Project is not expected to result in significant health risk to the nearby receptors, a condition of approval requiring the Project applicant to consult with the Air District and obtain a refined analysis. Results of this analysis shall be provided to Tulare County Resource Management Agency’s Planning Division prior to Project approval.</p> <p>Therefore, with implementation of Mitigation Measure AQ-1 and implementation of the condition of approval, construction-related activities of the proposed Project would result in less than significant construction-related health risks.</p> <p>d) Less Than Significant Impact: Operation of the proposed Project would not create odorous emissions. However, proposed Project construction-related activities would include fuels and other odor sources (such as diesel-fueled equipment), could result in the creation of objectionable odors. Since construction-related activities would be short-term, temporary, and spatially dispersed (i.e., intermittent), and occur in a predominantly rural area, these activities would not affect a substantial number of people. Therefore, odors generated by construction-related activities of the Project would result in a less than significant impact.</p>						
4.	BIOLOGICAL RESOURCES					
	Would the project:					
	a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Game or 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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
		plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				
	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 type="checkbox"/>	<input checked="" 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"/>

Analysis:

Environmental Setting

The Project would provide approximately 40 MW of renewable energy (electricity) on an approximately 277-acre site. In summary, the Project would be constructed in 3 stages (phases) as follows: Phase 1, Site Preparation; Phase 2, Photovoltaic Panel System; and Phase 3, Inverters, Transformers, Substation, Electrical Collector System, and Interconnection. Access and internal roads would be included along the perimeter and main access roads would be approximately 20 feet wide, likely using gravel, compacted dirt, or other commercially viable surface, and would meet Tulare County Fire Department standards. A six (6)-foot tall chain-link security fence would be installed around the perimeter of the Project site. It is not anticipated that lighting will be required; however, in the unlikely event that lighting is installed it would be motion activated which would be hooded and directed downward to minimize off-site light and glare would also be installed. Project construction would require the use of graders, trenchers, small tractors, a crane, and miscellaneous equipment. An estimated average of 150-450 construction-related vehicle trips per day would be used to import construction workers, PV module materials, substation/switchyard equipment, the new distribution line and associated support poles, the potential power storage facilities, and the gravelling of all compacted roads. Also, following its proposed life of 35 years, the site would be decommissioned and reclaimed as required by the County. The project is estimated to take approximately six-to-nine (6-9) months to complete. The comprehensive project description, including project components, is included in Attachment "D".

Biological Species Evaluation

The Technical Memorandum "*Biological Resources Evaluation for Angela Solar (PSP 19-083)*" (BRE Memo) was completed by RMA Staff (Jessica Willis, Planner IV) in May 2020 to analyze potential impacts on biological species in the Project vicinity (See Attachment "B"). The most recent California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB), RareFind 5 and Biogeographic Information and Observation System (BIOS) mapping applications were accessed on May 13, 2020 and May 18, 2020.²⁴

²⁴ CDFW. <https://wildlife.ca.gov/Data/CNDDB/Maps-and-Data>

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
<p><u>Special Status Species</u></p> <p>Based on the information in the CNDDDB and BIOS, there are 45 special status species and 4 natural communities recorded within the 9-quadrangle Project area (see Attachment H of the BRE Memo). These species include: 18 plant species; 1 invertebrate species; 4 insect species; 1 amphibian species, 4 reptile species; 10 bird species; and 7 mammal species. There are 14 special status species and 2 natural communities recorded within the Allensworth quadrangle (see Attachment G of the BRE Memo). These species include: 4 plant species; 1 amphibian species, 3 reptile species; 2 bird species; and 4 mammal species. There are 8 special status species recorded within two miles of the Project site (see Attachment E of the BRE Memo). These species include: 1 plant species; 1 reptile species; 4 bird species; and 2 mammal species. These species are identified as: <i>Atriplex cordulata</i> var. <i>erecticaulis</i> (Earlimart orache); <i>Gambelia sila</i> (blunt-nosed leopard lizard); <i>Charadrius alexandrinus nivosus</i> (western snowy plover); <i>Buteo swainsoni</i> (Swainson's hawk); <i>Agelaius tricolor</i> (tricolored blackbird); <i>Athene cunicularia</i> (burrowing owl); <i>Vulpes macrotis mutica</i> (San Joaquin kit fox); and <i>Perognathus inornatus</i> (San Joaquin Pocket Mouse) (see Attachment F of the BRE Memo). However, only one special status species, the San Joaquin kit fox, has been recorded within the Project site and adjacent parcels (see Attachment D of the BRE Memo).</p> <p>To ensure the Project will have a less than significant impact on biological species within the Project area, mitigations measures will be implemented as contained in the Mitigation Monitoring or Reporting Program and as summarized in Item a) of this discussion.</p> <p><i>Federal</i></p> <p><u>Endangered Species Act</u></p> <p>The Federal Endangered Species Act (FESA) protects plants and wildlife that are listed as endangered or threatened by the USFWS and National Oceanic and Atmospheric Administration (NOAA) Fisheries. Section 9 of the FESA prohibits the taking of listed wildlife, where taking is defined as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct” (50 CFR 17.3). For plants, this statute governs removing, possessing, maliciously damaging, or destroying any listed plant on federal land and removing, cutting, digging-up, damaging, or destroying any listed plant on non-federal land in knowing violation of state law (16USC1538). Pursuant to Section 7 of the FESA, federal agencies are required to consult with the USFWS if their actions, including permit approvals or funding, could adversely affect a listed plant or wildlife species or its critical habitat. Through consultation and the issuance of a biological opinion, the USFWS may issue an incidental take statement allowing take of the species that is incidental to another authorized activity, provided the action will not jeopardize the continued existence of the species. Section 10 of the FESA provides for issuance of incidental take permits to private parties, provided a Habitat Conservation Plan (HCP) is developed.</p> <p><u>Migratory Bird Treaty Act</u></p> <p>The MBTA implements international treaties devised to protect migratory birds and any of their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. As authorized by the MBTA, the USFWS issues permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits are in 50 CFR part 13 General Permit Procedures and 50 CFR part 21 Migratory Bird Permits. The State of California has incorporated the protection of birds of prey in Sections 3800, 3513, and 3503.5 of the CDFG Code.</p> <p><u>Federal Clean Water Act</u></p> <p>The Federal Clean Water Act's (CWA's) purpose is to “restore and maintain the chemical, physical, and biological integrity of the nation's waters.” Section 404 of the CWA prohibits the discharge of dredged or fill material into waters of the United States without a permit from the U.S. Army Corps of Engineers (ACOE). The definition of waters of the United States includes rivers, streams, estuaries, the territorial seas, ponds, lakes, and wetlands. Wetlands are defined as those areas “that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions (33 CFR 328.3 7b).” The USEPA also has authority over wetlands and may override an ACOE permit. Substantial impacts to wetlands may require an individual permit. Projects that</p>					

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only minimally affect wetlands may meet the conditions of one of the existing Nationwide Permits. A Water Quality Certification or Waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions; this certification or waiver is issued by the RWQCB.

State

California Endangered Species Act

The California Endangered Species Act (CESA) generally parallels the main provisions of the FESA, but unlike its federal counterpart, the CESA applies the take prohibitions to species proposed for listing (called candidates by the state). Section 2080 of the CDFG Code prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. Take is defined in Section 86 of the CDFG Code as to “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” The CESA allows for take incidental to otherwise lawful development projects. State lead agencies are required to consult with the CDFG to ensure that any action they undertake is not likely to jeopardize the continued existence of any endangered, threatened, or candidate species or result in destruction or adverse modification of essential habitat. The CDFG administers the act and authorizes take through Section 2081 agreements (except for designated fully protected species).

Fully Protected Species

The State of California first began to designate species as fully protected prior to the creation of the CESA and FESA. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction, and included fish, amphibians, reptiles, birds, and mammals. Most fully protected species have since been listed as threatened or endangered pursuant to the CESA and/or FESA. The regulations that implement the Fully Protected Species Statute (CDFG Code Section 4700) provide that fully protected species may not be taken or possessed at any time. Furthermore, the CDFG prohibits any state agency from issuing incidental take permits for fully protected species, except for necessary scientific research.

Native Plant Protection Act

Regarding listed rare and endangered plant species, the CESA defers to the California Native Plant Protection Act (NPPA) of 1977 (CDFG Code Sections 1900 to 1913), which prohibits importing of rare and endangered plants into California, and the taking and selling of rare and endangered plants. The CESA includes an additional listing category for threatened plants that are not protected pursuant to NPPA. In this case, plants listed as rare or endangered pursuant to the NPPA are not protected pursuant to CESA, but can be protected pursuant to the CEQA. In addition, plants that are not state listed, but that meet the standards for listing, are also protected pursuant to CEQA (Guidelines, Section 15380). In practice, this is generally interpreted to mean that all species on lists 1B and 2 of the CNPS Inventory potentially qualify for protection pursuant to CEQA, and some species on lists 3 and 4 of the CNPS Inventory may qualify for protection pursuant to CEQA. List 3 includes plants for which more information is needed on taxonomy or distribution. Some of these are rare and endangered enough to qualify for protection pursuant to CEQA. List 4 includes plants of limited distribution that may qualify for protection if their abundance and distribution characteristics are found to meet the standards for listing.

Local

Tulare County General Plan 2030 Update

The following Tulare County General Plan 2030 Update policies for this resource apply to this Project such as: *ERM-1.1 Protection of Rare and Endangered Species* which protects environmentally sensitive wildlife and plant life, including those species designated as rare, threatened, and/or endangered by State and/or Federal government, through compatible land use development; *ERM-1.4 Protect Riparian Areas* where the County shall protect riparian areas through habitat preservation, designation as open space or recreational land uses, bank stabilization, and development controls; *ERM-1.6 Management of Wetlands* where the County shall support the preservation and management of wetland and riparian plant communities for passive recreation, groundwater recharge, and wildlife habitats; *ERM-1.7 Planting of Native Vegetation* where the County shall encourage the planting of native trees, shrubs, and grasslands in order to preserve the visual integrity of the landscape, provide habitat conditions suitable for native vegetation and wildlife, and ensure that a maximum number and variety of well-adapted plants are maintained; and *ERM-1.16 Cooperate with*

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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Wildlife Agencies which states that the County shall cooperate with State and federal wildlife agencies to address linkages between habitat areas.

- a) **Less Than Significant Impact With Mitigation:** As noted earlier, the Project consists of a solar array on an approximately 277-acre site in the AE-80 (Exclusive Agriculture – 80 acre minimum) Zone and a new transmission line (along private property and un-maintained County road easements) that will connect the Project to the PG&E Olive substation approximately one (1.0) mile north of the Project site. The solar array component of the Project will be confined within an existing and active agricultural activity (row crops and grazing) on areas previously (and repeatedly) disturbed; while the new transmission line will be located within utility easements on private and un-maintained County road easements. The Project will not require removal of any native valley oaks or other trees. However, there is a possibility that migratory birds and raptors may be present within the vicinity of the Project site, or due to the transient nature of some species, the Project site could provide habitat or foraging areas for special status species such as kit fox.

As such, **Mitigation Measures BIO-1** through **BIO-15** would be implemented to reduce potential impacts on special status species to less than significant, as applicable. **Table BIO-1** summarizes **Mitigation Measures BIO-1** through **BIO-15** which can be found in their entirety in Attachments “B” and “E” of this IS/MND.

TABLE BIO-1 SUMMARY OF MITIGATION MEASURES		
MITIGATION	TYPE OF MITIGATION	SUMMARIZED DESCRIPTION
Measures for Special Status Plant Species		
BIO-1	Pre-construction Survey	Qualified biologist/botanist conducts pre-construction surveys for special status plant species
Measures for Special Status Animal Species		
BIO-2	Pre-construction Survey	Qualified biologist conducts pre-construction surveys for special status animal species; surveys to follow established CDFW-approved protocols for San Joaquin kit fox, nesting raptors and migratory birds (including loggerhead shrike and tricolor blackbird), burrowing owl, and blunt-nosed leopard lizard.
Measures for Special Status Species Identified in Pre-construction Surveys		
BIO-3	Employee Education Program	Qualified biologist conduct s tailgate meeting to train construction staff on special status species that occur/may occur on the project site.
Measures for San Joaquin Kit Fox		
BIO-4	Avoidance	If active or potential den is detected in or adjacent to work area during pre-construction survey, the den shall not be disturbed or destroyed. Compliance with <i>USFWS Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance (2011)</i> required. USFW and CDFW will be immediately contacted to determine best course of action
BIO-5	Minimization	Construction activities shall be carried out in a manner that minimizes disturbance to kit foxes.
BIO-6	Mortality Reporting	USFWS and CDFW will be contacted immediately by phone and notified in writing within 3 days in event of the accidental death or injury of a San Joaquin kit fox during construction-related activities.
Measures for Nesting Raptor and Migratory Birds		
BIO-7	Avoidance	Where possible, Project will be constructed outside the nesting season (between September 1st and January 31st).
BIO-8	Buffers	Upon active nest discovery, the biologist determines appropriate construction setback distances and a behavioral baseline using applicable CDFW guidelines and/or the biology of the affected species.
BIO-9	Mortality Reporting	USFWS and CDFW will be contacted immediately by phone and notified in writing within 3 days in event of the accidental death or injury of a nesting raptors and migratory birds (including loggerhead shrike and tricolored blackbird) during construction-related activities.
Measures for Burrowing Owl		
BIO-10	Avoidance	Where possible, Project will be constructed outside the nesting season (between September 1st and January 31st).

			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
	BIO-11	Buffers	If active or potential burrows are detected in or adjacent to work area during pre-construction survey, the burrows shall not be disturbed or destroyed. Compliance with CDFW <i>Staff Report on Burrowing Owl Mitigation (2012)</i> required. USFW and CDFW will be immediately contacted to determine best course of action.			
	BIO-12	Passive Relocation	During the non-breeding season (September 1-January 31), resident owls occupying burrows in project impact areas may be passively relocated to alternative habitat in accordance with a relocation plan prepared by a qualified biologist.			
	BIO-13	Mortality Reporting	USFWS and CDFW will be contacted immediately by phone and notified in writing within three working days in event of the accidental death or injury of a burrowing owl during construction-related activities.			
	Measures for Blunt-Nosed Leopard Lizard					
	BIO-14	Avoidance & Minimization	Construction activities shall be carried out in a manner that minimizes disturbance to blunt-nosed leopard lizard.			
	BIO-15	Mortality Reporting	USFWS and CDFW will be contacted immediately by phone and notified in writing within three working days in event of the accidental death or injury of a blunt-nosed leopard lizard during construction-related activities.			

One (1) special status species, the San Joaquin kit fox, has been recorded within the Project site and the immediate vicinity (i.e., the parcels adjacent to the site); seven (7) special status species have been recorded within two (2) miles of the Project site. As such, Mitigation Measures **BIO-1** and **BIO-2**, which require pre-construction surveys for special status plant and animals species, respectively, will be implemented prior to the onset of project-related activities. If no special status species are identified within the Project site during pre-construction surveys, no further action would be required; however, in the event that special status species are identified, Mitigation Measures **BIO-3** through **BIO-15** would be implemented as appropriate and in consultation with the CDFW and/or USFWS. Specifically, Mitigation Measure **BIO-3** would apply to all identified special status species; Mitigation Measures **BIO-4** through **BIO-6** would apply to San Joaquin kit fox; Mitigation Measures **BIO-7** through **BIO-9** would apply to nesting raptors and migratory birds, including loggerhead shrike and tricolored blackbird; Mitigation Measures **BIO-10** through **BIO-13** would apply to burrowing owl; and Mitigation Measures **BIO-14** and **BIO-15** would apply to blunt-nosed leopard lizard.

Therefore, the proposed Project will not significantly impact any biological plant or animal species. The proposed Project will not have a significant direct or cumulative impact, or create an unusual circumstance that will cause the proposed Project to have a significant effect on the biological resources of the area and environment. With implementation of Mitigation Measures BIO-1 through BIO-15, impacts to special status plant and animal species will be Less Than Significant with Mitigation.

b), c), and d) No Impact: The proposed Project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service; would not result in an 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; and it would not 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.

“Alpaugh Irrigation District canals are located adjacent to the Project site along the eastern boundary of the western half of the Project site and along the northern boundary of the eastern half of the Project site (see Attachments B and D [of the BRE Memo]). Based on the BIOS map, these canals are jurisdictional waters of the State (see Attachment E [of the BRE Memo]); however, these canals are adjacent to the site and jurisdictional waters are absent from the site itself.

The most recent United States Geological Survey (USGS) National Water Information System (NWIS) mapping application was accessed on May 19, 2020. Based on the information provided in the NWIS, the nearest jurisdictional bodies of water lie approximately 0.9 miles southwest and approximately 0.5 miles directly south of the Project site (see Attachment I [of the BRE Memo]).

The most recent United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) mapping application was accessed on May 19, 2020. Based on the information provided in the NWI, there are three (3) categories of wetlands in the Project vicinity. There are two (2) Freshwater Emergent Wetlands and one (1) Freshwater Pond on the parcel immediately

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
<p>south of the Project site, and the Alpaugh Irrigation District canals adjacent to the Project site are classified as Riverine. Jurisdictional waters are absent from the site itself (see Attachment J [of the BRE Memo]).</p> <p>As demonstrated in the BIOS, NWIS, and NWI maps, jurisdictional waters of the State and U.S. are absent from the Project site. Best management practices, including compliance with all applicable Regional Water Quality Control Board (RWQCB) requirements, which includes a storm water pollution prevention plan (SWPPP), will be required during construction activities and will be included as a condition of project approval. A grading and drainage plan will be submitted and approved by the Tulare County RMA Engineering Branch. As such, the Project will not result in significant impact to any riparian habitats or other protected wetlands. Therefore, mitigation measures that would reduce impacts have not been proposed, nor would any measures be warranted.”²⁵</p> <p>Therefore, implementation of Mitigation Measures BIO-1 through BIO-15 would result in a Less than Significant Impact to this item.</p> <p>e) and f) No Impact: The proposed Project will not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinances. Moreover, the proposed Project is not expected to conflict with the goals or policies of the Tulare County General Plan that protect biological resources. Also, as the Project is not within or in the vicinity of any approved habitat conservation plans, natural community conservation plans, or regional or state habitat conservation plans in effect, the Project would result in no impact to these resources within the vicinity of the proposed Project site.</p>					
5.	CULTURAL RESOURCES				
	Would the project:				
	a)	Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	c)	Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<p>Analysis:</p> <p>Environmental Setting</p> <p>Tulare County has a rich Native American history largely in part to the former abundance of wetlands, former abundance of game and foodstuffs, temperate climate, and central location within California. As such, it is important to summarize the Native America history as part of this analysis.</p> <p>Tulare County was inhabited by indigenous California Native American groups consisting of the Southern Valley Yokuts, Foothill Yokuts, Monache, and Tubatulabal. Most information regarding these groups is based on Spanish government and Franciscan mission records of the 18th and 19th centuries, and in studies conducted during the 1900s to 1930s by American and British ethnographers. The ethnographic setting presented below is derived from the early works, compiled by W. J. Wallace, Robert F.G. Spier, and Charles R. Smith²⁶, with statistical information provided by the California Native American Heritage Commission.</p> <p>Of the four main groups inhabiting the Tulare County area, the Southern Valley Yokuts occupied the largest territory, which is defined roughly by the crest of the Diablo Range on the west and the foothills of the Sierra Nevada on the east, and from the Kings River on the north, to the Tehachapi Mountains on the south. The Foothill Yokuts inhabited the western slopes of the Sierra Nevada, between the Fresno River and Kern River, with settlements generally occurring between the 2,000 to 4,000-foot elevations. The</p>					

²⁵ Technical Memorandum “*Biological Resources Evaluation for Angela Solar (PSP 19-083)*” (BRE Memo) was completed by RMA Staff (Jessica Willis, Planner IV) in May 2020 Pages 6-7.

²⁶ Tulare County General Plan 2030 Update, Background Report. Page 9-54.

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<p>Tubatulabal inhabited the Sierra Nevada Mountains, at the higher elevations, near Mt. Whitney in the east, extending westward along the drainages of the Kern River, and the Kern River-South Fork. The Monache were comprised of six small groups that lived in the Sierras east of the Foothill Yokuts, in locations ranging between 3,000 to 7,000 foot elevations.</p> <p>Regulatory Setting</p> <p><i>Federal</i></p> <p>Cultural resources are protected by several federal regulations, none of which are relevant to this project because it will not be located on lands administered by a federal agency and the project applicant is not requesting federal funding and does not require any permits from any federal agencies.</p> <p><i>State</i></p> <p>The proposed Project is subject to CEQA which requires public or private projects financed or approved by public agencies to assess their effects on historical resources. CEQA uses the term “historical resources” to include buildings, sites, structures, objects or districts, each of which may have historical, prehistoric, architectural, archaeological, cultural, or scientific importance. CEQA states that if implementation of a project results in significant effects on historical resources, then alternative plans or mitigation measures must be considered; however, only significant historical resources need to be addressed (CCR 15064.5, 15126.4). For the purposes of this CEQA document, a significant impact would occur if project implementation:</p> <ul style="list-style-type: none"> ➤ Causes a substantial change in the significance of a historical resource ➤ Causes a substantial adverse change in the significance of an archaeological resource ➤ Disturbs any human remains, including those interred outside of formal cemeteries <p>Therefore, before impacts and mitigation measures can be identified, the significance of historical resources must be determined. CEQA guidelines define three ways that a property may qualify as a historical resource for the purposes of CEQA review:</p> <ul style="list-style-type: none"> ➤ If the resource is listed in or determined eligible for listing in the California Register of Historical Resources (CRHR) ➤ If the resource is included in a local register of historical resources, as defined in Section 5020.1(k) of the PRC or identified as significant in an historical resource survey meeting the requirements of Section 5024.1(g) of the PRC unless the preponderance of evidence demonstrates that it is not historically or culturally significant ➤ The lead agency determines the resource to be significant as supported by substantial evidence in light of the whole record (CCR, Title 14, Division 6, Chapter 3, Section 15064.5(a)) <p>Each of these ways of qualifying as a historical resource for the purpose of CEQA is related to the eligibility criteria for inclusion in the CRHR (PRC 5020.1(k), 5024.1, 5024.1(g)).</p> <p>A historical resource may be eligible for inclusion in the CRHR if it:</p> <ul style="list-style-type: none"> ➤ Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage ➤ Is associated with the lives of persons important in our past ➤ Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values ➤ Has yielded, or may be likely to yield, information important in prehistory or history Properties that area listed in or eligible for listing in the National Register of Historic Places are considered eligible for listing in the CRHR, and thus are significant historical resources for the purpose of CEQA (PRC Section 5024.1(d)(1)). <p><u>CEQA Guidelines Section 15126.4(b)</u></p> <p>“(b) Mitigation Measures Related to Impacts on Historical Resources.</p>					

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<p>(1) Where maintenance, repair, stabilization, rehabilitation, restoration, preservation, conservation or reconstruction of the historical resource will be conducted in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings (1995), Weeks and Grimmer, the project's impact on the historical resource shall generally be considered mitigated below a level of significance and thus is not significant.</p> <p>(2) In some circumstances, documentation of an historical resource, by way of historic narrative, photographs or architectural drawings, as mitigation for the effects of demolition of the resource will not mitigate the effects to a point where clearly no significant effect on the environment would occur.</p> <p>(3) Public agencies should, whenever feasible, seek to avoid damaging effects on any historical resource of an archaeological nature. The following factors shall be considered and discussed in an EIR for a project involving such an archaeological site:</p> <p>(A) Preservation in place is the preferred manner of mitigating impacts to archaeological sites. Preservation in place maintains the relationship between artifacts and the archaeological context. Preservation may also avoid conflict with religious or cultural values of groups associated with the site.</p> <p>(B) Preservation in place may be accomplished by, but is not limited to, the following:</p> <ol style="list-style-type: none"> 1. Planning construction to avoid archaeological sites; 2. Incorporation of sites within parks, greenspace, or other open space; 3. Covering the archaeological sites with a layer of chemically stable soil before building tennis courts, parking lots, or similar facilities on the site. 4. Deeding the site into a permanent conservation easement. <p>(C) When data recovery through excavation is the only feasible mitigation, a data recovery plan, which makes provisions for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to any excavation being undertaken. Such studies shall be deposited with the California Historical Resources Regional Information Center. Archeological sites known to contain human remains shall be treated in accordance with the provisions of Section 7050.5 Health and Safety Code. If an artifact must be removed during project excavation or testing, curation may be an appropriate mitigation.</p> <p>(D) Data recovery shall not be required for an historical resource if the lead agency determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the archaeological or historical resource, provided that the determination is documented in the EIR and that the studies are deposited with the California Historical Resources Regional Information Center."²⁷</p> <p><u>Public Resources Code §5097.5</u></p> <p>California Public Resources Code §5097.5 prohibits excavation or removal of any "vertebrate paleontological site...or any other archaeological, paleontological or historical feature, situated on public lands, except with express permission of the public agency having jurisdiction over such lands." Public lands are defined to include lands owned by or under the jurisdiction of the state or any city, county, district, authority or public corporation, or any agency thereof. Section 5097.5 states that any unauthorized disturbance or removal of archaeological, historical, or paleontological materials or sites located on public lands is a misdemeanor.</p> <p><u>Human Remains</u></p> <p>Section 7050.5 of the California Health and Safety Code states that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the remains are discovered has determined whether or not the remains are subject to the coroner's authority. If the human remains are of Native American origin, the coroner must notify the Native American Heritage Commission within 24 hours of this identification. The Native American Heritage Commission will identify a Native American Most Likely Descendant (MLD) to inspect the site and provide recommendations for the proper treatment of the remains and associated grave goods.</p> <p><u>Local</u></p>					

²⁷ California Environmental Quality Act (CEQA) Statute and Guidelines. 2019.

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<p><u>Tulare County General Plan 2030 Update</u></p> <p>The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: <i>ERM-6.1 Evaluation of Cultural and Archaeological Resources</i> which states that the County shall participate in and support efforts to identify its significant cultural and archaeological resources using appropriate State and Federal standards; <i>ERM-6.2 Protection of Resources with Potential State or Federal Designations</i> wherein the County shall protect cultural and archaeological sites with demonstrated potential for placement on the National Register of Historic Places and/or inclusion in the California State Office of Historic Preservation's California Points of Interest and California Inventory of Historic Resources. Such sites may be of Statewide or local significance and have anthropological, cultural, military, political, architectural, economic, scientific, religious, or other values as determined by a qualified archaeological professional; <i>ERM-6.3 Alteration of Sites with Identified Cultural Resources</i> which states that when planning any development or alteration of a site with identified cultural or archaeological resources, consideration should be given to ways of protecting the resources. Development can be permitted in these areas only after a site specific investigation has been conducted pursuant to CEQA to define the extent and value of resource, and mitigation measures proposed for any impacts the development may have on the resource; <i>ERM-6.4 Mitigation</i> – which states that if preservation of cultural resources is not feasible, every effort shall be made to mitigate impacts, including relocation of structures, adaptive reuse, preservation of facades, and thorough documentation and archival of records; <i>ERM-6.7 Cooperation of Property Owners</i> where the County should encourage the cooperation of property owners to treat cultural resources as assets rather than liabilities, and encourage public support for the preservation of these resources; <i>ERM-6.8 Solicit Input from Local Native Americans</i> (which is consistent with AB 52 in regards to Tribal Consultation) wherein the County shall continue to solicit input from the local Native American communities in cases where development may result in disturbance to sites containing evidence of Native American activity and/or to sites of cultural importance; <i>ERM-6.9 Confidentiality of Archaeological Sites</i> which is also consistent with AB 52) where the County shall, within its power, maintain confidentiality regarding the locations of archaeological sites in order to preserve and protect these resources from vandalism and the unauthorized removal of artifacts; and <i>ERM-6.10 Grading Cultural Resources Sites</i> wherein the County shall ensure all grading activities conform to the County's Grading Ordinance and California Code of Regulations, Title 20, § 2501 et. seq.</p> <p>a) and b) Less Than Significant Impact With Mitigation: The solar array component of the Project will be confined within an existing and active agricultural activity (row crops and grazing) on areas previously (and repeatedly) disturbed; while the new transmission line for connection with the nearby PG&E Olive Substation north of the Project site will be located within utility easements on private property and un-maintained County roads. A cultural resources records search was conducted on May 19, 2020 by the Southern San Joaquin Valley Historical Resources Information Center, California State University, Bakersfield (RS #20-197). The records search included an examination of the National Register of Historic Places, the Office of Historic Preservation Built Environment Resources Directory, the California Register of Historical Resources, California Points of Historical Interest, California Inventory of Historic Resources, California State Historic Landmarks Registry, and the SSJVIC files of pertinent historical and archaeological data. There are no recorded cultural resources within the Project area or 0.5-mile radius that are listed in the National Register of Historic Places, the California Register of Historical Resources, the California Points of Historical Interest, California Inventory of Historic Resources, or the California State Historic Landmarks. There have been no previous cultural resource studies conducted within the Project area and one study conducted within the 0.5-mile radius. There are no recorded cultural resources within the Project area. There is one recorded resource (P-54-005100) within the 0.5-mile radius. Although no cultural resources were identified within the Project area in the records search, a potentially significant impact could occur if historical or archaeological resources were uncovered during proposed Project construction. However, implementation of the Mitigation Measures CUL-1 thru CUL-3 will reduce potential impacts in the unlikely event of encountering a historical or archaeological resource to a less than significant impact with mitigation.</p> <p>Mitigation Measure CUL-1: If, in the course of Project construction, operation, or decommissioning, any archaeological or historical resources are uncovered, discovered, or otherwise detected or observed, activities within fifty (50) feet of the find shall be ceased. A qualified archaeologist shall be contacted and advise the County of the site's significance. If the findings are deemed significant by the Tulare County Resources Management Agency, appropriate mitigation measures shall be required prior to any resumption of work in the affected area of the proposed Project. Where feasible, mitigation achieving preservation in place will be implemented. Preservation in place may be accomplished by, but is not limited to: planning construction to avoid archaeological sites or covering archaeological sites with a layer of chemically stable soil prior to building on the site. If significant resources are encountered, the feasibility of various methods of achieving preservation in place shall be considered, and an appropriate method of achieving preservation in place shall be selected and</p>					

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
<p>implemented, if feasible. If preservation in place is not feasible, other mitigation shall be implemented to minimize impacts to the site, such as data recovery efforts that will adequately recover scientifically consequential information from and about the site. Mitigation shall be consistent with CEQA Guidelines section 15126.4(b)(3). An archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology, hereafter "qualified archaeologist," should inspect the findings within 24 hours of discovery.</p> <p>Mitigation Measure CUL-2: If cultural resources are encountered during construction or land modification activities work shall stop and the County shall be notified at once to assess the nature, extent, and potential significance of any cultural resources. If such resources are determined to be significant, appropriate actions shall be determined. Depending upon the nature of the find, mitigation could involve avoidance, documentation, or other appropriate actions to be determined by a qualified archaeologist. For example, activities within 50 feet of the find shall be ceased.</p> <p>If it is determined that the Project could damage a significant cultural resource, mitigation should be implemented with a preference for preservation in place, consistent with the priorities set forth in CEQA Guidelines Section 15126.4(b)(3). If avoidance is not feasible, a qualified archaeologist should prepare and implement a detailed treatment plan in consultation with the County of Tulare and, for prehistoric resources, the ethnographically associated Native American tribe. If the resource is determined to be a tribal cultural resource, as defined by Public Resources Code 21074, the County of Tulare, in consultation with the ethnographically associated Native American tribe, should, if feasible, minimize significant adverse impacts by avoiding the resource or treating the resource with culturally appropriate dignity, which includes protecting the cultural character and integrity of the resource, protecting the traditional use of the resource, and protecting the confidentiality of the resource.</p> <p>Therefore, implementation of Mitigation Measures CUL-1 and CUL-2 would result in a Less than Significant Impact to this item.</p> <p>c) Less Than Significant Impact With Mitigation: As noted in Items a) and b), the solar array component of the Project will be confined within an existing and active agricultural activity (row crops and grazing) on areas previously (and repeatedly) disturbed; while the new transmission line will be located within utility easements on private property and un-maintained County roads. The records search and background research confirmed that no human remains are known to exist in the Project site. Therefore, the proposed Project is not anticipated to impact human remains, including those interred outside of formal cemeteries.⁷</p> <p>While unlikely, if any previously unknown human remains were encountered during ground disturbing activities, any impacts to the human remains resulting from the Project could be potentially significant. Any such potential significant impacts would be reduced to a less than significant level by implementing Mitigation Measure CUL-3. Inadvertent Disturb any human remains, including those interred outside of formal cemeteries Discovery of Human Remains, by requiring work to halt in the vicinity of a find until the County coroner determines whether the remains are Native American in origin and, if they are, contacting the Native American Heritage Commission.</p> <p>Mitigation Measure CUL-3: In the unlikely event of discovery or recognition of any human remains during construction-related activities, the provisions of CEQA Guidelines § 15064.5(e) shall be followed and such activities should cease within 50 feet of the find until the Tulare County Coroner has been contacted to determine that no investigation of the cause of death is required. If it is determined that the remains are Native American in origin, the Native American Heritage Commission (NAHC) will be contacted within 24 hours. The NAHC will then identify the person or persons it believes to be the most likely descendant (MLD) from the deceased Native American. The MLD would, in turn, make recommendations to the County of Tulare for the appropriate means of treating the human remains and any grave goods.</p> <p>Therefore, implementation of Mitigation Measure CUL-3 would result in a less than significant impact to this item.</p>					

			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
6.	ENERGY					
	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 or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Analysis:

Environmental Setting

The Project would provide approximately 40 MW of renewable energy (electricity) on an approximately 277-acre site. In summary, the Project would be constructed in 3 stages (phases) as follows: Phase 1, Site Preparation; Phase 2, Photovoltaic Panel System; and Phase 3, Inverters, Transformers, Substation, Electrical Collector System, and Interconnection. Project construction would require the use of graders, trenchers, small tractors, a crane, and miscellaneous equipment. An estimated average of 150-450 construction-related vehicle trips per day would be used to import construction workers, PV module materials, substation/switchyard equipment, the distribution line and associated support poles, the potential power storage facilities, and the gravelling of all compacted roads. Also, following its proposed life of 35 years, the site would be decommissioned and reclaimed as required by the County. The project is estimated to take approximately six-to-nine (6-to-9) months to complete. The comprehensive project description, including project components is included in Attachment "D"

Regulatory Setting

Federal

Energy Policy Act of 2005

The Energy Policy Act of 2005 seeks to reduce reliance on non-renewable energy resources and provide incentives to reduce current demand on these resources. For example, under the Act, consumers and businesses can obtain federal tax credits for purchasing fuel efficient appliances and products, including buying hybrid vehicles, building energy-efficient buildings, and improving the energy efficiency of commercial buildings. Additionally, tax credits are available for the installation of qualified fuel cells, stationary microturbine power plants, and solar power equipment.

State

California Energy Commission

The California Energy Commission CEC was created in 1974 to serve as the state's primary energy policy and planning agency. The CEC is tasked with reducing energy costs and environmental impacts of energy use - such as greenhouse gas emissions - while ensuring a safe, resilient, and reliable supply of energy. State of California Integrated Energy Policy (SB 1389) In 2002, the Legislature passed Senate Bill 1389, which required the California Energy Commission (CEC) to develop an integrated energy plan every two years for electricity, natural gas, and transportation fuels, for the California Energy Policy Report. The plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assistance to public agencies and fleet operators in implementing incentive programs for Zero Emission Vehicles and their infrastructure needs, and encouragement of urban designs that reduce vehicles miles traveled and accommodate pedestrian and bicycle access. The CEC adopted the 2013 Integrated Energy Policy Report on February 20, 2014. The 2013 Integrated Energy Policy Report provides the results of the CEC's assessment of a variety of issues, including:

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
	<ul style="list-style-type: none"> ➤ Ensuring that the state has sufficient, reliable, and safe energy infrastructure to meet current and future energy demands; ➤ Monitoring publicly-owned utilities' progress towards achieving 10-year energy efficiency targets; defining and including zero-net-energy goals in state building standards; ➤ Overcoming challenges to increased use of geothermal heat pump/ground loop technologies and procurement of biomethane; ➤ Using demand response to meet California's energy needs and integrate renewable technologies; ➤ Removing barriers to bioenergy development; planning for California's electricity infrastructure needs given potential retirement of power plants and the closure of the San Onofre Nuclear Generating Station; ➤ Estimating new generation costs for utility-scale renewable and fossil-fueled generation; ➤ Planning for new or upgraded transmission infrastructure; ➤ Monitoring utilities' progress in implementing past recommendations related to nuclear power plants; ➤ Tracking natural gas market trends; ➤ Implementing the Alternative and Renewable Fuel and Vehicle Technology Program; and, ➤ Addressing the vulnerability of California's energy supply and demand infrastructure to the effects of climate change; and planning for potential electricity system needs in 2030. <p><u>California Global Warming Solutions Act of 2006 (Assembly Bill 32)</u></p> <p>California Global Warming Solutions Act of 2006 (Assembly Bill 32) Assembly Bill 32 (Health and Safety Code Sections 38500–38599; AB 32), also known as the California Global Warming Solutions Act of 2006, commits the state to achieving year 2000 GHG emission levels by 2010 and year 1990 levels by 2020. To achieve these goals, AB 32 tasked the California Public Utilities Commission and CEC with providing information, analysis, and recommendations to the California Air Resources Board regarding ways to reduce GHG emissions in the electricity and natural gas utility sectors.</p> <p><u>California Energy Code (Title 24, Part 6, Building Energy Efficiency Standards)</u></p> <p>California Code of Regulations Title 24, Part 6 comprises the California Energy Code, which was adopted to ensure that building construction, system design and installation achieve energy efficiency. The California Energy Code was first established in 1978 by the CEC in response to a legislative mandate to reduce California's energy consumption, and apply to energy consumed for heating, cooling, ventilation, water heating, and lighting in new residential and non-residential buildings. The standards are updated periodically to increase the baseline energy efficiency requirements. The 2013 Building Energy Efficiency Standards focus on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings and include requirements to enable both demand reductions during critical peak periods and future solar electric and thermal system installations. Although it was not originally intended to reduce greenhouse gas (GHG) emissions, electricity production by fossil fuels results in GHG emissions and energy efficient buildings require less electricity. Therefore, increased energy efficiency results in decreased GHG emissions.</p> <p><u>Clean Energy and Pollution Reduction Act (SB 350)</u></p> <p>The Clean Energy and Pollution Reduction Act (SB 350) was passed by California Governor Brown on October 7, 2015, and establishes new clean energy, clean air, and greenhouse gas reduction goals for the year 2030 and beyond. SB 350 establishes a greenhouse gas reduction target of 40 percent below 1990 levels for the State of California, further enhancing the ability for the state to meet the goal of reducing greenhouse gas emissions by 80 percent below 1990 levels by the year 2050.</p> <p><u>Renewable Portfolio Standard (SB 1078 and SB 107)</u></p> <p>Established in 2002 under SB 1078, the state's Renewables Portfolio Standard (RPS) was amended under SB 107 to require accelerated energy reduction goals by requiring that by the year 2010, 20 percent of electricity sales in the state be served by renewable energy resources. In years following its adoption, Executive Order S-14-08 was signed, requiring electricity retail sellers to provide 33 percent of their service loads with renewable energy by the year 2020. In 2011, SB X1-2 was signed, aligning the RPS target with the 33 percent requirement by the year 2020. This new RPS applied to all state electricity retailers, including publicly owned utilities, investor-owned utilities, electrical service providers, and community choice aggregators. All entities included under the RPS were required to adopt the RPS 20 percent by year 2020 reduction goal by the end of 2013, adopt a reduction goal of 25</p>				

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
percent by the end of 2016, and meet the 33 percent reduction goal by the end of 2020. In addition, the Air Resources Board, under Executive Order S-21-09, was required to adopt regulations consistent with these 33 percent renewable energy targets.					
Local					
<u>Tulare County General Plan 2030 Update</u>					
The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: <i>ERM-4.1 Energy Conservation and Efficiency Measures</i> wherein the County encourages the use of solar energy, solar hot water panels, and other energy conservation and efficiency features; <i>ERM-4.3 Local and State Programs</i> wherein the County shall participate, to the extent feasible, in local and State programs that strive to reduce the consumption of natural or man-made energy sources and; <i>ERM-4.3 Local and State Programs</i> wherein the County shall participate, to the extent feasible, in local and State programs that strive to reduce the consumption of natural or man-made energy sources.					
a) and b) No Impact: The proposed Project will not have a direct or cumulative impact, or create wasteful, inefficient, or unnecessary consumption of energy resources during project construction-related activities or operations. Also, it will not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. The only energy consumed would be through the use of fossil fuels (gasoline and diesel operated equipment) during construction-related activities which will be completed in approximately six-to-nine months and maintenance operations (panel washing and weed abatement). The Project will not use any energy per se over the next 35 years of its anticipated life. Rather, the Project is renewal energy (electricity) generated by the proposed solar array. The energy derived from the Project, approximately 40 MW annually, will be transmitted via a new transmission line to the PG&E Olive substation approximately one (1) mile north of the Project site for distribution to the electrical grid. Therefore, there will be beneficial impact to the Energy resource. As such, the Project will result in no adverse impact to this resource.					
7.	GEOLOGY/SOILS				
	Would the project:				
	a)	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:			
	i)	Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication No. 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	ii)	Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	iii)	Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	iv)	Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	b)	Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	c)	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
		Code (1994), creating substantial direct or indirect risks to life or property?				
	e)	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	f)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Analysis:

Environmental Setting

“Seismicity varies greatly between the two major geologic provinces represented in Tulare County. The Central Valley is an area of relatively low tectonic activity bordered by mountain ranges on either side. The Sierra Nevada Mountains, partially located within Tulare County, are the result of movement of tectonic plates which resulted in the creation of the mountain range. The Coast Range on the west side of the Central Valley is also a result of these forces, and the continued uplifting of Pacific and North American tectonic plates continues to elevate these ranges. The remaining seismic hazards in Tulare County generally result from movement along faults associated with the creation of these ranges.”²⁸

“Earthquakes are typically measured in terms of magnitude and intensity. The most commonly known measurement is the Richter Scale, a logarithmic scale which measures the strength of a quake. The Modified Mercalli Intensity Scale measures the intensity of an earthquake as a function of the following factors:

- Magnitude and location of the epicenter;
- Geologic characteristics;
- Groundwater characteristics;
- Duration and characteristic of the ground motion;
- Structural characteristics of a building.”²⁹

“Faults are the indications of past seismic activity. It is assumed that those that have been active most recently are the most likely to be active in the future. Recent seismic activity is measured in geologic terms. Geologically recent is defined as having occurred within the last two million years (the Quaternary Period). All faults believed to have been active during Quaternary time are considered “potentially active.”³⁰

“Settlement can occur in poorly consolidated soils during ground-shaking. During settlement, the soil materials are physically rearranged by the shaking and result in reduced stabling alignment of the individual minerals. Settlement of sufficient magnitude to cause significant structural damage is normally associated with rapidly deposited alluvial soils, or improperly founded or poorly compacted fill. These areas are known to undergo extensive settling with the addition of irrigation water, but evidence due to ground-shaking is not available. Fluctuating groundwater levels also may have changed the local soil characteristics. Sufficient subsurface data is lacking to conclude that settlement would occur during a large earthquake; however, the data is sufficient to indicate that the potential exists in Tulare County.”³¹

“Liquefaction is a process whereby soil is temporarily transformed to a fluid form during intense and prolonged ground-shaking. Areas most prone to liquefaction are those that are water saturated (e.g., where the water table is less than 30 feet below the surface) and consist of relatively uniform sands that are low to medium density. In addition to necessary soil conditions, the ground acceleration and duration of the earthquake must be of sufficient energy to induce liquefaction. Scientific studies have shown that the ground acceleration must approach 0.3g before liquefaction occurs in a sandy soil with relative densities typical of the San Joaquin alluvial deposits. Liquefaction during major earthquakes has caused severe damage to structures on level ground as a result

²⁸ Tulare County General Plan 2030 Update, *Appendix B General Plan Background Report*. Page 8-5.

²⁹ Ibid.

³⁰ Op. Cit.

³¹ Op. Cit. 8-9.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
<p>of settling, tilting, or floating. Such damage occurred in San Francisco on bay-filled areas during the 1989 Loma Prieta earthquake, even though the epicenter was several miles away. If liquefaction occurs in or under a sloping soil mass, the entire mass may flow toward a lower elevation, such as that which occurred along the coastline near Seward, Alaska during the 1964 earthquake. Also of particular concern in terms of developed and newly developing areas are fill areas that have been poorly compacted.”³²</p> <p><u>Earthquake Hazards</u></p> <p>“Ground-shaking is the primary seismic hazard in Tulare County because of the county’s seismic setting and its record of historical activity. Thus, emphasis focuses on the analysis of expected levels of ground-shaking, which is directly related to the magnitude of a quake and the distance from a quake’s epicenter. Magnitude is a measure of the amount of energy released in an earthquake, with higher magnitudes causing increased ground-shaking over longer periods of time, thereby affecting a larger area. Ground-shaking intensity, which is often a more useful measure of earthquake effects than magnitude, is a qualitative measure of the effects felt by population. The valley portion of Tulare County is located on alluvial deposits, which tend to experience greater ground-shaking intensities than areas located on hard rock. Therefore, structures located in the valley will tend to suffer greater damage from ground-shaking than those located in the foothill and mountain areas. However, existing alluvium valleys and weathered or decomposed zones are scattered throughout the mountainous portions of the county which could also experience stronger intensities than the surrounding solid rock areas. The geologic characteristics of an area can therefore be a greater hazard than its distance to the epicenter of the quake.”³³</p> <p>“There are three faults within the region that have been, and will be, principal sources of potential seismic activity within Tulare County. These faults are described below:</p> <ul style="list-style-type: none"> • San Andreas Fault is located approximately 40 miles west of the Tulare County boundary and [approximately] 44 miles west of the project area. This fault has a long history of activity, and is thus the primary focus in determining seismic activity within the County. Seismic activity along the fault varies along its span from the Gulf of California to Cape Mendocino. Just west of Tulare County lays the “Central California Active Area,” section of the San Andreas Fault where many earthquakes have originated. • Owens Valley Fault Group is a complex system containing both active and potentially active faults, located on the eastern base of the Sierra Nevada Mountains approximately [approximately] 82 miles east of the project area. The Group is located within Tulare and Inyo Counties and has historically been the source of seismic activity within Tulare County. • Clovis Fault is considered to be active within the Quaternary Period, although there is no historic evidence of its activity, and is therefore classified as “potentially active.” This fault lies approximately six miles south of the Madera County boundary in Fresno County and [approximately] 76 miles north of the project area. Activity along this fault could potentially generate more seismic activity in Tulare County than the San Andreas or Owens Valley fault systems. In particular, a strong earthquake on the Fault could affect northern Tulare County. However, because of the lack of historic activity along the Clovis Fault, inadequate evidence exists for assessing maximum earthquake impacts.”³⁴ <p>There are other unnamed faults north of Bakersfield and near Tulare Buttes about 30 miles north of Porterville. These faults are small and have exhibited activity in the last 1.6 million years, but not in the last 200 years. It is also possible, but unlikely, that previously unknown faults could become active in the area.³⁵ No Alquist-Priolo Earthquake Fault Zones or known active faults are in or near the Project area.³⁶</p> <p><u>Soils and Liquefaction</u></p> <p>“The San Joaquin Valley portion of Tulare County is located on alluvial deposits, which tend to experience greater ground-shaking intensities than areas located on hard rock. Therefore, structures located in the valley will tend to suffer greater damage from ground-shaking than those located in the foothill and mountain areas. However, existing alluvium valleys and weathered or</p>					

³² Op. Cit.

³³ Op. Cit.

³⁴ Op. Cit. 3.7-5; and *Tulare County, Revised Draft General Plan 2030 Update*, August 2012. Page 10-7.

³⁵ Tulare County, *Revised Draft General Plan 2030 Update*, August 2012. Page 10-15.

³⁶ California Geological Survey, <http://www.quake.ca.gov/gmaps/WH/regulatorymaps.htm>

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
<p>decomposed zones are scattered throughout the mountainous portions of the county which could also experience stronger intensities than the surrounding solid rock areas. The geologic characteristics of an area can therefore be a greater hazard than its distance to the epicenter of the quake.”³⁷</p> <p>“No specific countywide assessments to identify liquefaction hazards have been performed in Tulare County. Areas where groundwater is less than 30 feet below the surface occur primarily in the valley. However, soil types in the area are not conducive to liquefaction because they are either too coarse or too high in clay content. Areas subject to 0.3g acceleration or greater are located in a small section of the Sierra Nevada Mountains along the Tulare-Inyo County boundary. However, the depth to groundwater in such areas is greater than in the valley, which would minimize liquefaction potential as well. Detailed geotechnical engineering investigations would be necessary to more accurately evaluate liquefaction potential in specific areas and to identify and map the areal extent of locations subject to liquefaction.”³⁸</p> <p><u>Landslides</u></p> <p>“Landslides are a primary geologic hazard and are influenced by four factors:</p> <ul style="list-style-type: none"> • Strength of rock and resistance to failure, which is a function of rock type (or geologic formation); • Geologic structure or orientation of a surface along which slippage could occur; • Water (can add weight to a potentially unstable mass or influence strength of a potential failure surface); and, • Topography (amount of slope in combination with gravitation forces).”³⁹ <p><u>Paleontology</u></p> <p>Regarding paleontological resources, “Paleontological resources are the fossilized remains of plants and animals and associated deposits. The Society of Vertebrate Paleontology has identified vertebrate fossils, their taphonomic and associated environmental indicators, and fossiliferous deposits as significant nonrenewable paleontological resources. Botanical and invertebrate fossils and assemblages may also be considered significant resources.”⁴⁰ CEQA requires that a determination be made as to whether a project would directly or indirectly destroy a unique paleontological resource or site or unique geological feature (CEQA Appendix G(v)(c)). If an impact is significant, CEQA requires feasible measures to minimize the impact (CCR Title 14(3) §15126.4 (a)(1)). California Public Resources Code §5097.5 also applies to paleontological resources.</p> <p>REGULATORY SETTING</p> <p><i>Federal</i></p> <p>None that apply to the Project.</p> <p><i>State</i></p> <p><u>California Building Code</u></p> <p>“The California Building Code is another name for the body of regulations known as the California Code of Regulations (C.C.R.), Title 24, Part 2, which is a portion of the California Building Standards Code. Title 24 is assigned to the California Building Standards Commission, which, by law, is responsible for coordinating all building standards.”⁴¹</p> <p><u>Alquist-Priolo Earthquake Fault Zoning Act</u></p> <p>“The Alquist-Priolo Earthquake Fault Zoning Act (formerly the Alquist-Priolo Special Studies Zone Act), signed into law December 1972, requires the delineation of zones along active faults in California. The purpose of the Alquist-Priolo Act is to regulate</p>					

³⁷ Tulare County, Revised Draft General Plan 2030 Update, August 2012. Page 8-7.

³⁸ Ibid. 8-9.

³⁹ Op. Cit. 8-10.

⁴⁰ Society of Vertebrate Paleontology. Conformable Impact Mitigation Guidelines Committee Policy Statements.
<http://www.vertpaleo.org/ConformableImpactMitigationGuidelinesCommittee.htm>.

⁴¹ Tulare County, Revised Draft General Plan 2030 Update, August 2012. Page. 8-3.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
<p>development on or near active fault traces to reduce the hazards associated with fault rupture and to prohibit the location of most structures for human occupancy across these traces.”⁴²</p> <p><u>State Water Resources Control Board and Regional Water Quality Control Board</u></p> <p>National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction Activity- Water Quality Order 99-08 DWQ.</p> <p>Typically, General Construction Storm Water NPDES permits are issued by the RWQCB for grading and earth-moving activities. The General Permit is required for construction activities that disturb one or more acres. The General Permit requires development and implementation of a Storm Water Pollution Prevention Plan (SWPPP), which specifies practices that include prevention of all construction pollutants from contacting stormwater with the intent of keeping all products of erosion from moving off site into receiving waters. The NPDES permits are issued for a five-year term. NPDES general permits require adherence to the Best Management Practices (BMPs) including:</p> <ul style="list-style-type: none"> • Site Planning Consideration- such as preservation of existing vegetation. • Vegetation Stabilization- through methods such as seeding and planting. • Physical Stabilization- through use of dust control and stabilization measures. • Diversion of Runoff – by utilizing earth dikes and temporary drains and swales. • Velocity Reduction – through measures such as slope roughening/terracing. • Sediment Trapping/Filtering – through use of silt fences, straw bale and sand bag filters, and sediment traps and basins. <p>Local</p> <p><u>Tulare County General Plan Policies</u></p> <p>The General Plan has a number of policies that apply to projects within Tulare County. General Plan policies that relate to the Project include: <i>HS-1.2 Development Constraints</i> wherein the County shall permit development only in areas where the potential danger to the health and safety of people and property can be mitigated to an acceptable level; <i>HS-1.3 Hazardous Lands</i> wherein the County shall designate areas with a potential for significant hazardous conditions for open space, agriculture, and other appropriate low intensity uses; <i>HS-1.5 Hazard Awareness and Public Education</i> wherein the County shall continue to promote awareness and education among residents regarding possible natural hazards, including soil conditions, earthquakes, flooding, fire hazards, and emergency procedures; <i>HS-1.11 Site Investigations</i> wherein the County shall conduct site investigations in areas planned for new development to determine susceptibility to landslides, subsidence/settlement, contamination, and/or flooding; <i>HS-2.1 Continued Evaluation of Earthquake Risks</i> wherein the County shall continue to evaluate areas to determine levels of earthquake risk; <i>HS-2.4 Structure Siting</i> wherein the County shall permit development on soils sensitive to seismic activity permitted only after adequate site analysis, including appropriate siting, design of structure, and foundation integrity; <i>HS-2.7 Subsidence</i> wherein the County shall confirm that development is not located in any known areas of active subsidence; <i>HS-2.8 Alquist-Priolo Act Compliance</i> wherein The County shall not permit any structure for human occupancy to be placed within designated Earthquake Fault Zones; <i>WR-2.2 NPDES Enforcement</i> wherein the County shall continue to support the State in monitoring and enforcing provisions to control non-point source water pollution contained in the U.S. EPA NPDES program as implemented by the Water Quality Control Board; <i>WR-2.3 Best Management Practices</i> wherein the County shall continue to require the use of feasible BMPs and other mitigation measures designed to protect surface water and groundwater from the adverse effects of construction activities, agricultural operations requiring a County Permit and urban runoff in coordination with the Water Quality Control Board; and <i>WR-2.4 Construction Site Sediment Control</i> wherein the County shall continue to enforce provisions to control erosion and sediment from construction sites.</p> <p><u>Five County Seismic Safety Element (FCSSE)</u></p> <p>The FCSSE report represents a cooperative effort between the governmental entities within Fresno, Kings, Madera, Mariposa and Tulare Counties to develop an adoptable Seismic Safety Element as required by State law. Part I, the Technical Report, is designed to be used when necessary to provide background for the Summary document. Part II, the Summary Report, establishes the</p>					

⁴² Ibid.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
<p>framework and rationale for evaluation of seismic risks and hazards in the region. Part II of the Seismic Safety Element, the Policy Report, has been prepared as a “model” report designed to address seismic hazards as delineated in the Technical Report. The intent has been to develop a planning tool for use by county and city governments in implementing their seismic safety elements. The planning process utilized to develop the Element was developed through the efforts of Technical and Policy Committees, composed of both staff and elected representatives from Cities, Counties, and Special Districts or Areawide Planning Organizations in cooperation with the consulting firms of Envicom Corporation and Quinton-Redgate.⁴³</p> <p>a) Less Than Significant Impact: According to the Tulare County General Plan, the planning area lies in the V1 seismic study area, characterized by a relatively thin section of sedimentary rock overlying a granitic basement.</p> <p>The V-1 seismic zone, which is characterized by a relatively thick section of sedimentary rock overlying a granitic basement, has “low” risks for shaking hazards, “minimal” risk for landslides, “low to moderate” risk for subsidence, “low” risks for liquefaction and “minimal” risk for seiching.⁴⁴</p> <p>The distance to area faults i.e. the Clovis Group, Pond-Poso, and San Andreas, expected sources of significant shaking, is sufficiently great that shaking effects should be minimal.</p> <p>i) <i>Fault Rupture:</i> No substantial faults are known to occupy Tulare County according to the Alquist-Priolo Earthquake Fault Zoning Maps and the State of California Department of Conservation. The nearest known faults likely to affect the Project site are the San Andreas Fault (approximately 40 miles west of Tulare County’s western border). According to the Five County Seismic Safety Element (FCSSE), the proposed Project site is located in the V-1 zone, characterized as a moderately thick section of marine and continental sedimentary deposits overlying the granitic basement complex. The FCSSE further states that, “Amplification of shaking that would affect low to medium-rise structures is relatively high, but the distance to either of the faults that are expected sources of the shaking is sufficiently great that the effects should be minimal. The requirements of Zone II of the Uniform Building Code should be adequate for normal facilities. Therefore, as noted earlier, no Alquist-Priolo Earthquake Fault Zones or known active faults are in or near the Project area. As such, the risk of rupture of a known earthquake fault will be less than significant.</p> <p>ii) <i>Ground Shaking:</i> The Project area is located in a seismic zone which is sufficiently far from known faults and consists primarily of a stable geological formation. Any impacts regarding strong seismic ground shaking have been discussed in Impact VI-a-i. As such, the impact due to ground shaking would be less than significant.</p> <p>iii) <i>Ground Failure and Liquefaction:</i> The proposed Project site is located in the Five County Seismic Safety Element’s V-1 zone, and therefore has a low risk of liquefaction. No subsidence-prone soils or oil or gas production is involved with the proposed Project. The any impacts will be less than significant.</p> <p>iv) <i>Landslides:</i> The proposed Project is located in the Five County Seismic Safety Element’s V-1 zone and therefore will have a minimal risk of landslides. As the proposed Project is located on the Valley floor, is situated on relatively flat topography, and there are no geologic landforms on or near the site that could result in a landslide event. Therefore, there is no risk of landslides within or near the Project area.</p> <p>b) Less Than Significant Impact: Site construction-related activities will include trenching, earthmoving, pouring concrete, grading, and solar panel assembly and a new transmission line (which will be located within utility easements on private property and un-maintained County roads. These activities could expose soils to erosion processes. The extent of erosion will vary depending on slope steepness/stability, vegetation/cover, concentration of runoff, and weather conditions. The site has very little slope (i.e., a slight grade from east to west of 0 to 2%) and will have a flat topography after minimal grading. To preserve and restore the agricultural productivity of the Project site to the existing condition during and upon completion of the life of the Project, no soils would be removed from the Project site during construction or operation of the Project. As stated earlier, the relatively flat nature of the site reduces the need for grading which would be limited to access roads, substation, inverter pads, and switchyard. Any soils removed from these areas would be redistributed around and retained elsewhere on the</p>					

⁴³ Five County Seismic Safety Element. Fresno, Kings, Madera, Mariposa, & Tulare Counties. 1974. Pages 4-7. Prepared by Envicom Corporation.

⁴⁴ Envicom Corporation, 1974. Summary of Seismic Hazards & Safety Recommendations. Five County Seismic Safety Element Fresno, Kings, Madera, Mariposa & Tulare Counties.

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	<p>Project site (i.e., along solar panel support rack alignments). Beyond grading, soil disturbance would occur in association with trenching for emplacement of electrical conduits along each alignment of panel racks. This trenching would be limited in scale and anticipated to require an 18-inch wide and four (4)-foot deep trench for conduit cable which is not anticipated to displace significant soils.⁴⁵</p> <p>To prevent water and wind erosion during the construction period, a Storm Water Pollution Prevention Plan (SWPPP) will be developed for the proposed Project as required for all projects which disturb more than one acre. As part of the SWPPP, the applicant will be required to provide erosion control measures to protect the topsoil. Any stockpiled soils will be watered and/or covered to prevent loss due to wind erosion as part of the SWPPP during construction.⁴⁶ In addition, depending upon activity, the Project would be subject to Air District Rules Rule 8021 (construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities) for construction and earthmoving activities; 8031 (Bulk Materials) which limits fugitive dust emissions from the outdoor handling, storage, and transport of bulk materials (such a topsoil); 8041 (Carryout and Trackout) which requires prevention and/or cleanup of soil that is tracked out by vehicle tires exiting the site or carried out by vehicles exiting the site; 8051 (Open Areas) requiring stabilization of areas cleared of vegetation in anticipation of construction-related activities; and 8071 (Unpaved Vehicle/Equipment Traffic Areas) to limit fugitive dust emissions from unpaved vehicle and equipment traffic areas within the Project's construction-related areas. As a result of these efforts, loss of topsoil and substantial soil erosion during the construction period are not anticipated.</p> <p>As such, the Project would not result in substantial soil erosion or loss of thereby the impact by this Project would be a less than significant impact.</p> <p>c) Less Than Significant Impact: Substantial grade change will not occur in the topography to the point where the proposed Project will expose people or structures to potential substantial adverse effects on, or offsite, such as landslides, lateral spreading, liquefaction or collapse. As noted earlier, this Project is located in the Five County Seismic Safety Element's V-1 zone, characterized as a moderately thick section of marine and continental sedimentary deposits overlying the granitic basement complex, as such, the Project site has a low to moderate risk of subsidence or liquefaction. Therefore, the Project would result in a less than significant impact.</p> <p>d) No Impact: According to the USDA, NRCS, and the Soil Survey of Tulare County, the proposed Project site contains Nahrub and Westcamp soils. with a 0-1% and 0-2% slopes; respectively. Nahrub soils make up approximately 94% of the site and are somewhat poorly drained. Generally, these soils are alluvium derived mainly from granitic rock and have a clay content ranging from 20-27%⁴⁷ while highly expansive soils have clay contents in excess of 60% allowing for higher potential water absorption. Therefore, the native soils identified on the site do not contain the characteristics of an expansive soil. As such, the Project would result in no impact and would not create substantial direct or indirect risks to life or property.</p> <p>e) No Impact: The proposed Project does not include the installation or use of septic tanks or other alternative waste water disposal systems. As such, the Project would result in no impact</p> <p>f) Less Than Significant Impact: There are no known paleontological resources within the Project area, nor are there any known geologic features in the proposed Project area. Project construction will not be anticipated to disturb any paleontological resources not previously disturbed; however, Mitigation Measure(s) CUL-1 thru CUL-3, as specified in Item V Cultural Resources (as applicable), will ensure that any impact will be less than significant.</p>				

⁴⁵ "Angela Solar Project Operational Statement" February 2020. Prepared by Angiola East LLC. (included in Attachment "D" of this document).

⁴⁶ Ibid.

⁴⁷ Unites States Department of Agriculture Natural Resource Conservation Service. NAHRUB SERIES https://soilseries.sc.egov.usda.gov/OSD_Docs/N/NAHRUB.html

			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
8.	GREENHOUSE GAS EMISSIONS					
	Would the project:					
	a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	b)	Conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Analysis:

Environmental Setting

“An increase in the near surface temperature of the earth. Global warming has occurred in the distant past as the result of natural influences, but the term is most often used to refer to the warming predicted to occur as a result of increased emissions of greenhouse gases. Scientists generally agree that the earth’s surface has warmed by about 1 degree Fahrenheit in the past 140 years, but warming is not predicted evenly around the globe. Due to predicted changes in the ocean currents, some places that are currently moderated by warm ocean currents are predicted to fall into deep freeze as the pattern changes.”⁴⁸ “The warming of the earth’s atmosphere attributed to a buildup of CO₂ or other gases; some scientists think that this build-up allows the sun’s rays to heat the earth, while making the infra-red radiation atmosphere opaque to infrared radiation, thereby preventing a counterbalancing loss of heat. Ibid. Gases that trap heat in the atmosphere are called greenhouse gases (GHGs). The major concern is that increases in GHGs are causing global climate change. Global climate change is a change in the average weather on earth that can be measured by wind patterns, storms, precipitation and temperature. The gases believed to be most responsible for global warming are water vapor, carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆).”⁴⁹ “Enhancement of the greenhouse effect can occur when concentrations of GHGs exceed the natural concentrations in the atmosphere. Of these gases, CO₂ and methane are emitted in the greatest quantities from human activities. Emissions of CO₂ are largely by-products of fossil fuel combustion, whereas methane primarily results from off-gassing associated with agricultural practices and landfills. SF₆ is a GHG commonly used in the utility industry as an insulating gas in transformers and other electronic equipment. There is widespread international scientific agreement that human-caused increases in GHGs has and will continue to contribute to global warming, although there is much uncertainty concerning the magnitude and rate of the warming.”⁵⁰ “Some of the potential resulting effects in California of global warming may include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years (CARB, 2006). Globally, climate change has the potential to impact numerous environmental resources through potential, though uncertain, impacts related to future air temperatures and precipitation patterns. The projected effects of global warming on weather and climate are likely to vary regionally, but are expected to include the following direct effects (IPCC, 2001):

- Higher maximum temperatures and more hot days over nearly all land areas;
- Higher minimum temperatures, fewer cold days and frost days over nearly all land areas;
- Reduced diurnal temperature range over most land areas; o Increase of heat index over land areas; and
- More intense precipitation events.”⁵¹

“Snowpack and snowmelt may also be affected by climate change. Much of California’s precipitation falls as snow in the Sierra Nevada and southern Cascades Mountain ranges, and snowpack represents approximately 35 percent of the state’s useable annual water supply.”⁵² “The snowmelt typically occurs from April through July; it provides natural water flow to streams and reservoirs

⁴⁸ Tulare County General Plan 2030 Update Background Report. Page 6-31. Accessed April 2019 at: <http://generalplan.co.tulare.ca.us/documents.html> then scroll down to and select Background Report

⁴⁹ Ibid. 6-16 and 6-20.

⁵⁰ Op. Cit. 6-31.

⁵¹ Op. Cit.

⁵² Op. Cit. 8-85.

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after the annual rainy season has ended.”⁵³ “As air temperatures increase due to climate change, the water stored in California’s snowpack could be affected by increasing temperatures resulting in: (1) decreased snowfall, and (2) earlier snowmelt.”⁵⁴

“In 2007, Tulare County generated approximately 5.2 million tonnes of Carbon Dioxide Equivalent (CO₂e). The largest portion of these emissions (63 percent) is attributed to dairies/feedlots, while the second largest portion (16 percent) is from mobile sources, the third largest portion (11%) is from electricity sources.”⁵⁵ Table 6-7 [Table GHG-1 in this document] identifies Tulare County’s emissions by sector in 2007.”⁵⁶

“In 2030, Tulare County is forecast to generate approximately 6.1 million tonnes of CO₂e. The largest portion of these emissions (59%) is attributed to dairies/feedlots, while the second largest portion (20%) is from mobile sources, and third largest portion (11%) is from electricity as shown on Table 6-8 [Table GHG-2 in this document]. Per capita emissions in 2030 are projected to be approximately 27 tonnes of CO₂e per resident.”⁵⁷

The Tulare County General Plan contains the following: Enhancement of the greenhouse effect can occur when concentrations of GHGs exceed the natural concentrations in the atmosphere. Of these gases, CO₂ and methane are emitted in the greatest quantities from human activities. Emissions of CO₂ are largely by-products of fossil fuel combustion, whereas methane primarily results from off-gassing associated with agricultural practices and landfills. SF₆ is a GHG commonly used in the utility industry as an insulating gas in transformers and other electronic equipment. There is widespread international scientific agreement that human-caused increases in GHGs has and will continue to contribute to global warming, although there is much uncertainty concerning the magnitude and rate of the warming.⁵⁸

Table GHG-1 GHG Emissions by Sector in 2007⁵⁹		
Sector	CO ₂ e (tons/year)	% of Total
Electricity	542,690	11%
Natural Gas	321,020	6%
Mobile Sources	822,230	16%
Dairy/Feedlots	3,294,870	63%
Solid Waste	227,250	4%
Total	5,208,060	100%
<i>Per Capita</i>	<i>36.1</i>	

Table GHG-2 GHG Emissions by Sector in 2030⁶⁰		
Sector	CO ₂ e (tons/year)	% of Total
Electricity	660,560	11%
Natural Gas	384,410	6%
Mobile Sources	1,212,370	20%
Dairy/Feedlots	3,601,390	59%
Solid Waste	246,750	4%
Total	6,105,480	100%
<i>Per Capita</i>	<i>27.4</i>	

⁵³ Op. Cit.

⁵⁴ Op. Cit.

⁵⁵ Op. Cit. 6-36.

⁵⁶ Op. Cit. 6-38.

⁵⁷ Op. Cit.

⁵⁸ Op. Cit. 6-31.

⁵⁹ Op. Cit.

⁶⁰ Op. Cit.

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<p>The San Joaquin Valley Air Pollution Control District (Air District) proposed, and subsequently adopted, the following process for determining the cumulative significance of project specific GHG emissions on global climate change when issuing permits for stationary source projects:</p> <ul style="list-style-type: none"> • “Projects determined to be exempt from the requirements of CEQA would be determined to have a less than significant individual and cumulative impact for GHG emissions and would not require further environmental review, including analysis of project specific GHG emissions. Projects exempt under CEQA would be evaluated consistent with established rules and regulations governing project approval and would not be required to implement [Best Performance Practices] BPS. • Projects complying with an approved GHG emission reduction plan or GHG mitigation program which avoids or substantially reduces GHG emissions within the geographic area in which the project is located would be determined to have a less than significant individual and cumulative impact for GHG emissions. Such plans or programs must be specified in law or approved by the lead agency with jurisdiction over the affected resource and supported by a CEQA compliant environmental review document adopted by the lead agency. Projects complying with an approved GHG emission reduction plan or GHG mitigation program would not be required to implement BPS. • Projects implementing Best Performance Standards would not require quantification of project specific GHG emissions. Consistent with CEQA Guideline, such projects would be determined to have a less than significant individual and cumulative impact for GHG emissions. • Projects not implementing Best Performance Standards would require quantification of project specific GHG emissions and demonstration that project specific GHG emissions would be reduced or mitigated by at least 29%, compared to [Business As Usual] BAU, including GHG emission reductions achieved since the 2002-2004 baseline period, consistent with GHG emission reduction targets established in ARB’s AB 32 Scoping Plan. Projects achieving at least a 29% GHG emission reduction compared to BAU would be determined to have a less than significant individual and cumulative impact for GHG. • Project requiring preparation of an Environmental Impact Report would require quantification of project specific GHG emissions. Projects implementing BPS or achieving at least a 29% GHG emission reduction compared to BAU would be determined to have a less than significant individual and cumulative impact for GHG.”⁶¹ <p>Regulatory Setting</p> <p><i>Federal</i></p> <p>While climate change has been a concern since at least 1988, as evidenced by the establishment of the United Nations and World Meteorological Organization’s Intergovernmental Panel on Climate Change (IPCC), the efforts devoted to greenhouse gas (GHG) emissions reduction and climate change research and policy have increased dramatically in recent years.</p> <p>The USEPA Mandatory Reporting Rule (40 CFR Part 98), which became effective December 29, 2009, requires that all facilities that emit more than 25,000 metric tons CO₂-equivalent per year beginning in 2010, report their emissions on an annual basis. On May 13, 2010, the USEPA issued a final rule that established an approach to addressing GHG emissions from stationary sources under the CAA permitting programs. The final rule set thresholds for GHG emissions that define when permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities.</p> <p>In addition, the Supreme Court decision in <i>Massachusetts v. EPA</i> (Supreme Court Case 05-1120) found that the USEPA has the authority to list GHGs as pollutants and to regulate emissions of GHGs under the CAA. On April 17, 2009, the USEPA found that CO₂, CH₄, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride may contribute to air pollution and may endanger public health and welfare. This finding may result in the USEPA regulating GHG emissions; however, to date the USEPA has not proposed regulations based on this finding.</p> <p><i>State</i></p>					

⁶¹ District Policy, Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as Lead Agency. Page 8 and 9. Accessed in May 2020 at: <https://www.valleyair.org/Programs/CCAP/12-17-09/2%20CCAP%20-%20FINAL%20District%20Policy%20CEQA%20GHG%20-%20Dec%2017%202009.pdf>

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<p>In 2002, with the passage of Assembly Bill 1493 (AB 1493), California launched an innovative and pro-active approach to dealing with GHG emissions and climate change at the state level. AB 1493 requires the Air Resources Board (ARB) to develop and implement regulations to reduce automobile and light truck GHG emissions; these regulations applied to automobiles and light trucks beginning with the 2009 model year.</p> <p>California has taken action to reduce GHG emissions. In June 2005, Governor Schwarzenegger signed Executive Order S-3-05 to address climate change and GHG emissions in California. This Order sets the following goals for statewide GHG emissions:</p> <ul style="list-style-type: none"> • Reduce to 2000 levels by 2010 • Reduce to 1990 levels by 2020 • Reduce to 80 percent below 1990 levels by 2050 <p>In 2006, California passed AB 32, the California Global Warming Solutions Act of 2006. The Act requires ARB to design and implement emission limits, regulations, and other feasible cost-effective measures to reduce statewide GHG emissions to 1990 levels by 2020. Senate Bill 97 was signed into law in August 2007. The Senate Bill required the Office of Planning and Research (OPR) to prepare, develop, and transmit to the Resource Agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions by July 1, 2009. On April 13, 2009, the OPR submitted to the Secretary for Natural Resources its recommended amendments to the State CEQA Guidelines for addressing GHG emissions. On July 3, 2009, the Natural Resources Agency commenced the Administrative Procedure Act rulemaking process for certifying and adopting the amendments. Following a 55-day public comment period and 2 public hearings, and in response to comments, the Natural Resources Agency proposed revisions to the text of the proposed Guidelines amendments. The Natural Resources Agency transmitted the adopted amendments and the entire rulemaking file to the Office of Administrative Law on December 31, 2009. On February 16, 2010, the Office of Administrative Law approved the amendments, and filed them with the Secretary of State for inclusion in the CCR. The Amendments became effective on March 18, 2010.</p> <p>The AB 32 Scoping Plan contains the main strategies California will use to reduce GHG emissions that cause climate change. The scoping plan has a range of GHG reduction actions which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms (such as a cap-and-trade system), and an AB 32 cost of implementation fee regulation to fund the program. The first regulation adopted by the ARB pursuant to AB 32 was the regulation requiring mandatory reporting of GHG emissions. The regulation requires large industrial sources emitting more than 25,000 metric tons of CO₂ per year to report and verify their GHG emissions from combustion of both fossil fuels and biomass-derived fuels. The California Cap and Trade program is being developed and the ARB must adopt regulations by January 1, 2011. Also, Governor Schwarzenegger directed the ARB, pursuant to Executive Order S-21-09, to adopt a regulation by July 31, 2010, requiring the state's load serving entities to meet a 33 percent renewable energy target by 2020.</p> <p><u>California Environmental Quality Act (CEQA) Requirements</u></p> <p>Section 15064.4 Determining the Significance of Impacts from Greenhouse Gas Emissions</p> <p>(a) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in section 15064. A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:</p> <ol style="list-style-type: none"> (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model or methodology it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; and/or (2) Rely on a qualitative analysis or performance based standards. <p>(b) A lead agency should consider the following factors, among others, when assessing the significance of impacts from greenhouse gas emissions on the environment:</p>					

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
<p>(1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;</p> <p>(2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.</p> <p>(3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.⁶²</p> <p>Local</p> <p><u>Tulare County General Plan 2030 Update</u></p> <p>The Tulare County General Plan 2030 Update: Chapter 9 – Air Quality contains a number of policies that apply to projects within Tulare County that support GHG reduction efforts and which have potential relevance to the Project's CEQA review: <i>AQ-1.3 Cumulative Air Quality Impacts</i> wherein the County shall require development to be located, designed, and constructed in a manner that would minimize cumulative air quality impacts; <i>AQ-1.5 California Environmental Quality Act (CEQA) Compliance</i> wherein the County shall ensure that air quality impacts identified during the CEQA review process are consistently and reasonably mitigated when feasible; <i>AQ-1.7 Support Statewide Climate Change Solutions</i> wherein the County shall monitor and support the efforts of Cal/EPA, CARB, and the SJVAPCD, under AB 32 (Health and Safety Code §38501 et seq.), to develop a recommended list of emission reduction strategies, as appropriate, the County will evaluate each new project under the updated General Plan to determine its consistency with the emission reduction strategies; <i>AQ-1.8 Greenhouse Gas Emissions Reduction Plan/Climate Action Plan</i> wherein the County will develop a Greenhouse Gas Emissions Reduction Plan (Plan) that identifies greenhouse gas emissions within the County as well as ways to reduce those emissions. The Plan will incorporate the requirements adopted by the California Air Resources Board specific to this issue. In addition, the County will work with the Tulare County Association of Governments and other applicable agencies to include the following key items in the regional planning efforts.</p> <ol style="list-style-type: none"> 1. Inventory all known, or reasonably discoverable, sources of greenhouse gases in the County, 2. Inventory the greenhouse gas emissions in the most current year available, and those projected for year 2020, and 3. Set a target for the reduction of emissions attributable to the County's discretionary land use decisions and its own internal government operations. <p><u>Tulare County Climate Action Plan</u></p> <p>The Tulare County Climate Action Plan (CAP) serves as a guiding document for County of Tulare ("County") actions to reduce greenhouse gas emissions and adapt to the potential effects of climate change. The CAP is an implementation measure of the 2030 General Plan Update. The General Plan provides the supporting framework for development in the County to produce fewer greenhouse gas emissions during Plan buildout. The CAP builds on the General Plan's framework with more specific actions that will be applied to achieve emission reduction targets consistent with California legislation.⁶³</p>					

⁶². California Environmental Quality Act (CEQA). Section 15064.4 Determining the Significance of Impacts from Greenhouse Gas Emissions

⁶³ Tulare County Climate Action Plan. Page 1. Accessed May 2019 at: <http://generalplan.co.tulare.ca.us/documents.html>. then select tab noted as "Climate Action Plan February 2010 Draft"

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Construction-related emissions have been estimated (using the California Emissions Estimator Model (CalEEMod), Version 2016.3.2 (the model), from a similar solar project and are used in this document by analogy as similar projects will likely result in similar GHG emissions. This Project is smaller than the comparative project and will likely generate fewer emissions.⁶⁴

a) Less Than Significant Impact: The Project will result in approximately 879 metric tons of GHG which will be generated only during construction-related activities (particularly, heavy-duty off road equipment). However, these emissions will be intermittent (i.e., varying times throughout the course of a day, varying uses of construction-related equipment, varying duration of use by equipment type, etc.), temporary (i.e., only occurring during daylight hours), and short-term (lasting no longer than nine (9) months). GHG emissions also would be generated by construction-related worker-related daily commutes, by heavy-duty diesel tractor-trailer trucks that would be required to haul materials and debris to/from the proposed Project site, and as a result of water use for dust control and other construction-related activities. Once construction-related activities have ceased, operational emissions would be limited to infrequent vehicle-related emissions by maintenance staff and periodic PV panel washing. Decommissioning emissions are assumed to be the same as those from construction-related activities.

High-voltage switchgear for the proposed Project may have circuit breakers that contain SF₆ gas, a GHG with high global warming potential. SF₆ is used as an insulator and arc suppressor in the circuit breakers. Under normal operating conditions, the SF₆ gas would be contained in the equipment and only released due to a leak in the circuit breaker housing.

The electricity generated during the operation of the Project would be added to the power grid and displace electricity generated from fossil fuels. Displaced GHG emissions were calculated by using the average solar radiation hours per day and the current mix of power sources in California. Power sources other than coal and natural gas were not included. The operation of the proposed Project would displace approximately 81,205 metric tons of CO₂e per year and result in a net reduction of GHG emissions. This annual displacement in GHG emissions would result in an annual net GHG emissions of 79,439 metric tons of CO₂e per year, as shown in Table GHG-3. (Calculations are provided in Attachment “A”)

Table GHG-3	
Project Phase	CO ₂ e (metric tons per year)
Construction	879
Operation	7
Decommissioning	879
Project Total	1,766
Annual Displacement	-81,205
Annual Net Emissions	-79,439
Source: See attachment “A”.	

The methodology found in the SJVAPCD’s Climate Change Action Plan was used to determine the significance of impacts caused by GHG emissions from the Project (SJVAPCD, 2009). This methodology recommends projects be compared to a “business-as-usual” scenario, and that projects should be considered to not have a significant impact if it can be demonstrated to have a 29 percent reduction in GHG emissions from the “business-as-usual” scenario. The “business-as-usual” scenario for the Project assumes that the current electricity generation mix in California remains the same during the operational lifetime of the project (35 years) and that there would be no changes to the methods used to generate electricity in California. As described in Table GHG-3, the proposed Project would result in an annual GHG emissions reduction of more than 38,320 metric tons CO₂e compared to the “business-as-usual scenario”, a reduction of greater than 100 percent.

The Project will result in a benefit as it will reduce GHG emissions typically generated by other energy producers as this Project is a renewable energy project (solar). Overall, the GHG emissions generated during construction-related activities will be nullified when the Project is fully operational. As such, the Project would result in a less than significant impact to this resource.

⁶⁴ See Attachment “A”. These emissions estimates were derived from another solar energy project in Tulare County (Deer Creek Solar) that is approximately 1.36 times greater in acreage (i.e., 378 acres vs. this Project’s 277 acres) and has a lengthier construction time frame (12-months vs. this Project’s 6-9 total months). The Deer Creek Solar Project emissions analysis can also be found in the MND prepared for the Deer Creek Solar Project, which is available on the County’s website at <https://tularecounty.ca.gov/rma/index.cfm/planning-building/environmental-planning/mitigated-negative-declarations/deer-creek-solar-project/>.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
<p>b) Less Than Significant Impact:</p> <p>Since the proposed Project is located in an unincorporated area of Tulare County, the most applicable GHG plan is the Tulare County Climate Action Plan (CAP) (County of Tulare, 2010), Executive Order S-3-05, Executive Order B-30-15, SB 350, SB 100, AB 32, and SB 32, including the potential for the Project to conflict with the recommended actions identified by CARB in its 2017 Climate Change Scoping Plan.</p> <p>In April 2015, Governor Edmund G. Brown Jr. issued an executive order to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. Reaching this emission reduction target will make it possible for California to reach its ultimate goal of reducing emissions 80 percent under 1990 levels by 2050, as identified in Executive Order S-3-05. Executive Order B-30-15 also specifically addresses the need for climate adaptation and directs state government to:</p> <ul style="list-style-type: none"> • Incorporate climate change impacts into the State’s Five-Year Infrastructure Plan; • Update the Safeguarding California Plan, the State climate adaption strategy to identify how climate change will affect California infrastructure and industry and what actions the State can take to reduce the risks posed by climate change; • Factor climate change into State agencies’ planning and investment decisions; and • Implement measures under existing agency and departmental authority to reduce GHG emissions. <p>On September 10, 2018, Governor Brown signed SB 100, establishing that 100 percent of all electricity in California must be obtained from renewable and zero-carbon energy resources by December 31, 2045. SB 100 also creates new standards for the Renewables Portfolio Standard (RPS) goals established by SB 350 in 2015. Specifically, the bill increases required energy from renewable sources for both investor-owned utilities and publicly-owned utilities from 50 percent to 60 percent by 2030. Incrementally, these energy providers must also have a renewable energy supply of 33 percent by 2020, 44 percent by 2024, and 52 percent by 2027. California must procure 100 percent of its energy from carbon free energy sources by the end of 2045. The updated RPS goals are considered achievable, since many California energy providers are already meeting or exceeding the RPS goals established by SB 350.</p> <p>Executive Order B-30-15 required CARB to update the AB 32 Climate Change Scoping Plan to incorporate the 2030 target. Subsequently, SB 32, which codifies the Executive Order’s 2030 emissions reduction target, was approved by the Governor on September 8, 2016. SB 32 requires CARB to adopt rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions to ensure that statewide GHG emissions are reduced to at least 40 percent below the 1990 statewide GHG emissions limit no later than December 31, 2030 (the target date established by Executive Order B-30-15. CARB recently adopted the 2017 Scoping Plan) to achieve this goal.</p> <p>The CAP serves as a guiding document for County actions to reduce GHG emissions and adapt to the potential effects of climate change. The CAP requires projects on average achieve a reduction that is six percent in excess of the reductions stated in the ARB Scoping Plan and by regional regulations and programs. AB 32 requires the California Air Resources Board to design and implement feasible and cost-effective emissions limits, regulations, and other measures, such that statewide GHG emissions are reduced to 1990 levels by 2020 (representing a 25 percent reduction in emissions).</p> <p>The Project involves the construction-, operation- and maintenance-, and decommissioning-related activities of a solar facility that would produce a new renewable source of energy in Tulare County. Therefore, the Project would directly support the renewable energy target under the 2017 Scoping Plan Update, and a goal of SB 100, for increasing California’s procurement of electricity from renewable sources from 50 percent to 60 percent by 2030. As previously discussed, and through analogy of a similar project (see Attachment “A”), the proposed Project would result in a result in an annual GHG emissions reduction of more than 38,320 metric tons CO₂e compared to the “business-as-usual scenario” (a reduction of greater than 100 percent) and would be consistent with the Tulare County CAP, SB 32, SB 100, and AB 32. As such, the Project would result in no impact and provides a net, long-term benefit towards reducing GHG.</p> <p>Therefore, the Project would not generate greenhouse gas emissions, either directly or indirectly that may have a significant impact on the environment.</p>					

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT	
9.	HAZARDS AND HAZARDOUS MATERIALS:					
	Would the project:					
	a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and 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 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"/>
	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 type="checkbox"/>	<input checked="" type="checkbox"/>
Analysis: Environmental Setting The proposed Project site is located in southwestern Tulare County (County), California, approximately six miles west of nearest city, the City of Tulare. The County Seat, Visalia, is located approximately 10 miles north of the Project site. The nearest airport, Mefford Field Airport (City of Tulare) is approximately 21 miles northeast of the proposed Project site. The nearest operational landfill is Teapot Dome Landfill, approximately 11 miles southeast of the proposed Project site. When it reinitiates active operations in 2020 (estimated), the Woodville Landfill is located approximately one mile west of the site. The nearest elementary (Woodville Elementary School) is located in Woodville (approximately 4.25 miles south of the Project site), while the nearest high school (Mission Oak High School) is approximately 5.75 miles northwest of the Project site in the City of Tulare. Regulatory Setting						

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
<p><i>Federal</i></p> <p>The NFPA 70®: National Electrical Code® is adopted in all 50 states. It includes requirements for electrical wiring and equipment. Article 705 covers interconnecting generators, windmills, and solar and fuel cells with other power supplies.⁶⁵ The federal Resource Conservation and Recovery Act (RCRA) and California Hazardous Waste Control Law regulate the disposal of solar PV cells. The local hazardous waste regulatory authority is the County of Tulare.</p> <p><i>State</i></p> <p>The California Department of Industrial Relations, Division of Occupational Safety and Health, is the administering agency designed to protect worker health and general facility safety. The California Department of Forestry and Fire Protection (CalFire) has designated the area that includes the project site as a Local Responsibility Area which is defined as an area where the local fire jurisdiction is responsible for emergency fire response. The project area is also defined as “Unzoned,” which means that the fire hazard severity of the site has not been determined.⁶⁶</p> <p><i>Local</i></p> <p><u>Tulare County General Plan 2030 Update</u></p> <p>The Tulare County General Plan 2030 Update (at Chapter 10 – Health and Safety) contains the following goals and policies that relate to hazards and hazardous materials, and which have potential relevance to the Project’s CEQA review: HS-4.1 Hazardous Materials wherein the County shall strive to ensure hazardous materials are used, stored, transported, and disposed of in a safe manner, in compliance with local, State, and Federal safety standards, including the Hazardous Waste Management Plan, Emergency Operations Plan, and Area Plan; HS-4.2 Establishment of Procedures to Transport Hazardous Wastes wherein the County shall continue to cooperate with the California Highway Patrol (CHP) to establish procedures for the movement of hazardous wastes and explosives within the County; HS-4.3 Incompatible Land Uses wherein the County shall prevent incompatible land uses near properties that produce or store hazardous waste; and HS-4.4 Contamination Prevention wherein the County shall review new development proposals to protect soils, air quality, surface water, and groundwater from hazardous materials contamination.</p> <p>a) and b) Less Than Significant Impact: Proposed Project construction will require the transport and use of small quantities of hazardous materials in the form of gasoline, diesel, and oil. There is the potential for small leaks due to refueling of the construction equipment; however, standard construction Best Management Practices (BMPs) included in the SWPPP will reduce the potential for accidental release of construction-related fuels and other hazardous materials. These BMPs will prevent, minimize, or remedy storm water contamination from spills or leaks, control the amount of runoff from the site, and require proper disposal or recycling of hazardous materials.</p> <p>Proposed Project operations may require the storage of small amounts of hazardous materials, such as fuel and lubricants. The storage, transport, and use of these materials will comply with Local, State, and Federal regulatory requirements.</p> <p>Therefore, the proposed Project will not result in a significant hazard to the public or the environment and impacts will be less than significant.</p> <p>c) No Impact: The nearest school, Woodville Elementary School, is approximately 1.5 miles north of the proposed Project site. The Project involves construction of a solar energy generation facility (and a new transmission line to the PG&E Olive substation approximately 0.5 miles north of the Project site) and will not emit hazardous emissions, involve hazardous materials, or create a hazard to the school. There will be no impact.</p> <p>d) No Impact: According to the State of California Department of Toxic Substances Control (DTSC) – Envirostor Search, one hazardous materials site exists within an approximate two-mile radius of the proposed Project site.⁶⁷ However; the site has been certified as mitigated by DTSC via a letter dated May 8, 2019.⁶⁸ The proposed Project site and a new transmission line route</p>					

⁶⁵ National Fire Protection Association. 2010. NFPA 70: National Fire Code.

⁶⁶ California Department of Forestry and Fire Protection. 2007. Draft Fire Severity Zones in LRA Map. September.

⁶⁷ California Dept. of Toxic and Substances Control Accessed May 2020 at: <https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=Tulare+County%2C+CA>.

⁶⁸ Ibid.

			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
<p>to the PG&E Olive substation (approximately one mile north of the Project site) are not listed as hazardous materials sites pursuant to Government Code Section 65962.5 and are not included on a list compiled by the Department of Toxic Substances Control per a review of “Identified Hazardous Waste Sites” (conducted on May, 2020), by RMA staff. Therefore, as the proposed Project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 it would not create a significant hazard to the public or the environment</p> <p>e) No Impact: The nearest airport, Mefford Field Airport, is approximately twenty-one (21) miles northeast of the proposed Project site; There are no private airports within the Project vicinity. Although a new transmission line to the PG&E Olive substation (approximately one mile north of the Project site) is included as part of the proposed Project, the Project would not result in the placement of transmission lines or other structures sufficiently tall enough to interfere with the flight path of either airport (which is located approximately 21 miles northeast of the Project site). The proposed Project will not conflict with Tulare County Airport Land Use Plan (ALUP) policy and it is not within any airport’s safety zone. The proposed Project will not result in a safety hazard for people working in the area. As such, the Project would result in no impact to this resource.</p> <p>f) No Impact: The proposed Project is not located in the vicinity of a principal route of assistance, as described by the Safety Element of the Tulare County General Plan. The Project site does cross one publicly accessed route (Road 46). One component of the Project, a new transmission line would be constructed within private property and un-maintained County road utility easements to the PG&E Olive substation (approximately one mile north of the Project site). However, due to its remoteness it will not interfere with implementation of an emergency response plan or evacuation. Road 46 is rural in nature and is part of a grid of County roads that do not directly lead to the nearest state routes. It does; however, provide connectivity to the nearest unincorporated (Alpaugh). As such, Road 46 is a unique, convenient, or a direct route to or from the nearest community (Alpaugh). From Alpaugh, State Route 43 can be reached via Avenues 54 and 56 which ultimately provides access to other highways or other Tulare County communities. As noted earlier, the new transmission line will cross (but will not use) Road 46. As such, the proposed Project will not interfere with implementation of an emergency response plan or evacuation.</p> <p>g) No Impact: The surrounding land is predominantly agricultural and scattered rural residential uses and is not subject or vulnerable to wildland fires. The proposed Project will not contain any housing or buildings where workers will reside or be stationed that will be at risk of fire. As such, the Project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires and would result in no impact to this resource.</p>						
10.	HYDROLOGY AND WATER QUALITY					
	Would the project:					
	a)	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater 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 checked="" type="checkbox"/>	<input 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:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
	i)	Result in substantial erosion or siltation on-or off-site?	<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"/>

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	iv) Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Analysis:

Environmental Setting

Tulare County has a dry climate with evaporation rates that exceeds rainfall. The local climate is considered warm desert with annual precipitation approximately 7 to 9 inches, and variable rainfall rates. The majority of precipitation (roughly 84%) falls during the months of November through April.

Hydrology in the Project vicinity is associated with the Tulare Lake Basin, one of three main water subareas in the county. The Tulare Lake Basin is in the northern alluvial fan and basin subarea which is characterized by southwest-to-south flowing rivers, creeks, and irrigation canal systems that convey water from the Sierra Nevada to the west toward the Tulare Lake Bed. The southern portion of the basin is internally drained by the Kings, Kaweah, Tule, and Kern Rivers.⁶⁹ The Tulare Lake Basin comprises the drainage area of the San Joaquin Valley south of the San Joaquin River, and is essentially a closed basin because surface water drains north into the San Joaquin River only in years of extreme rainfall.

Regulatory Framework

Federal

Clean Water Act

The Clean Water Act (CWA) is intended to restore and maintain the chemical, physical, and biological integrity of the nation's waters (33 CFR 1251). The regulations implementing the CWA protect waters of the U.S. including streams and wetlands (33 CFR 328.3). The CWA requires states to set standards to protect, maintain, and restore water quality by regulating point source and some non-point source discharges. Under Section 402 of the CWA, the National Pollutant Discharge Elimination System (NPDES) permit process was established to regulate these discharges.

The National Flood Insurance Act (1968) makes available federally subsidized flood insurance to owners of flood-prone properties. To facilitate identifying areas with flood potential, Federal Emergency Management Agency (FEMA) has developed Flood Insurance Rate Maps (FIRM) that can be used for planning purposes.

State

State Water Resources Control Board

The State Water Resources Control Board (SWRCB), located in Sacramento, CA, is the agency with jurisdiction over water quality issues in the State of California. The SWRCB is governed by the Porter-Cologne Water Quality Act (Division 7 of the California Water Code) which establishes the legal framework for water quality control activities by the SWRCB. The intent of the Porter-

⁶⁹ California Department of Water Resources. California's Groundwater Bulletin 118. 2004. Tulare Lake Hydrologic Region, San Joaquin Valley Groundwater Basin. http://www.water.ca.gov/pubs/groundwater/bulletin_118/basindescriptions/5-22.11.pdf. Site accessed May 2020.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
<p>Cologne Act is to regulate factors which may affect the quality of waters of the State to attain the highest quality which is reasonable, considering a full range of demands and values. Much of the implementation of the SWRCB's responsibilities is delegated to its nine Regional Boards. The Project site is located within the Central Valley Region.</p> <p><u>Regional Water Quality Board</u></p> <p>The Central Valley Regional Water Quality Control Board (RWQCB) administers the NPDES storm water-permitting program in the Central Valley region. Construction activities on one acre or more are subject to the permitting requirements of the NPDES General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Construction Permit). The General Construction Permit requires preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The plan will include specifications for Best Management Practices (BMPs) that will be implemented during proposed Project construction to control degradation of surface water by preventing the potential erosion of sediments or discharge of pollutants from the construction area. The General Construction Permit program was established by the RWQCB for the specific purpose of reducing impacts to surface waters that may occur due to construction activities. BMPs have been established by the RWQCB in the California Storm Water Best Management Practice Handbook (2003), and are recognized as effectively reducing degradation of surface waters to an acceptable level. Additionally, the SWPPP will describe measures to prevent or control runoff degradation after construction is complete, and identify a plan to inspect and maintain these facilities or project elements.</p> <p><i>Local</i></p> <p><u>Tulare County Land Development Regulations</u></p> <p>The Tulare County Resource Management Agency (RMA) is responsible for review, approval, and enforcement of planning and land development throughout the unincorporated portions of Tulare County. County of Tulare regulations that direct planning and land development (and related water and wastewater utilities) include the Tulare County General Plan, Zoning Ordinance, Subdivision Ordinance, and CEQA procedures. These responsibilities are divided between Planning Branch, Public Works Branch, and other divisions or departments of RMA, and in coordination with the Environmental Health Division of the Tulare County Health and Human Services Agency, and the Tulare County Fire Department.</p> <p>The County's flood damage prevention code is intended to promote public health, safety, and general welfare in addition to minimizing public and private losses due to flood conditions. The County code provisions to protect against flooding include requiring uses vulnerable to floods be protected against flood damage at the time of initial construction; controlling the alteration of natural flood plains; and preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas. The County flood damage prevention code, most recently amended by Ord. No. 3212 and effective October 29, 1998, is modeled based upon FEMA guidance.</p> <p><u>Tulare County General Plan 2030 Update</u></p> <p>The Tulare County General Plan 2030 Update: (Chapter 10 – Health and Safety and Chapter 11 – Water Resources) contains the following goals and policies that relate to hydrology and water quality and which have potential relevance to the Project's California Environmental Quality Act (CEQA) review: <i>AG-1.17 Agricultural Water Resources</i> wherein the County shall seek to protect and enhance surface water and groundwater resources critical to agriculture; <i>HS-4.4 Contamination Prevention</i> wherein the County shall review new development proposals to protect soils, air quality, surface water, and groundwater from hazardous materials contamination; <i>WR-1.1 Groundwater Withdrawal</i> wherein the County shall cooperate with water agencies and management agencies during land development processes to help promote an adequate, safe, and economically viable groundwater supply for existing and future development within the County. These actions shall be intended to help the County mitigate the potential impact on ground water resources identified during planning and approval processes; <i>WR-2.1 Protect Water Quality</i> wherein all major land use and development plans shall be evaluated as to their potential to create surface and groundwater contamination hazards from point and non-point sources. This policy requires the County to confer with other appropriate agencies, as necessary, to assure adequate water quality review to prevent soil erosion; direct discharge of potentially harmful substances; ground leaching from storage of raw materials, petroleum products, or wastes; floating debris; and runoff from the site; <i>WR-2.2 National Pollutant Discharge Elimination System (NPDES) Enforcement</i> wherein the County shall continue to support the State in monitoring and enforcing provisions to control non-point source water pollution contained in the U.S. EPA NPDES program as implemented by the Water Quality Control Board; <i>WR-2.3 Best Management Practices (BMPs)</i> wherein the County shall continue to require the use of</p>					

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
feasible BMPs and other mitigation measures designed to protect surface water and groundwater from the adverse effects of construction activities, agricultural operations requiring a County Permit and urban runoff in coordination with the Water Quality Control Board; and <i>WR-2.4 Construction Site Sediment Control</i> wherein the County shall continue to enforce provisions to control erosion and sediment from construction sites.					
<p>a) Less Than Significant Impact: The State Water Resources Control Board requires any new construction project greater than one acre to complete a Stormwater Pollution Prevention Plan (SWPPP). A SWPPP would be prepared for the Project by a qualified engineer or erosion control specialist as a condition of approval and would be submitted to the County for review and approval before being implemented during construction. The SWPPP would be designed to reduce potential impacts related to erosion and surface water quality during construction activities and throughout the life of the Project. It would include Project information and best management practices (BMP). The BMPs would include dewatering procedures, stormwater runoff quality control measures, concrete waste management, watering for dust control, and construction of perimeter silt fences, as needed. Implementation of the SWPPP will minimize the potential for the Project to substantially alter the existing drainage pattern in a manner that will result in substantial erosion or siltation onsite or offsite. There will be no discharge to any surface or groundwater sources which may impact water quality standards. As such, the Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. Therefore, the Project would result in a less than significant impact to this resource.</p> <p>b) Less Than Significant Impact: The proposed Project site is located in the Tulare Lake Basin, an area significantly affected by overdraft. The Department of Water Resources (DWR) has estimated the groundwater by hydrologic region and for the Tulare Lake Basin. DWR estimates a total overdraft of 820,000 acre-feet per year (which is the largest overdraft projected in the state, and approximately 56 percent of the statewide total overdraft). The Project site is located within the Tule Sub-basin portion of the regional area.</p> <p>The proposed Project includes the construction of a solar energy generation facility with single axis tracker solar modules (photovoltaic (PV) panels) and a new transmission line to the PG&E Olive substation (approximately 0.5 miles north of the Project site) would be constructed along private property and un-maintained County road utility easements. The proposed Project would not require a permanent potable supply of water and would not utilize or develop an on-site surface or groundwater supply over the life of the Project. Water would be imported/trucked to the Project site during biannual panel washing activities which are estimated to require approximately 16,000 to 32,000 gallons per year [approximately 0.050 – 0.10 acre-feet].⁷⁰ PV panel washing would occur approximately two times a year depending on the amount of rainfall in a given year using imported water. The washing of the panels is similar to common window washing and would employ no harsh chemicals or solvents. Water trucks would be brought on-site twice a year for duration of approximately 10 days (20 days/year total).⁷¹ Water drainage patterns will not be modified other than being slightly delayed by dripping down solar panel surfaces. Rainfall patterns will be slightly modified by being displaced by a maximum of twelve (12) feet horizontally. In the spaces between panel rows (about 8.5-feet wide), rain will contact the ground surface without impediment. No chemicals will be used in the maintenance or operation of solar panels and as such, there will be no discharge that could impact water quality standards. Therefore, based on the limited, temporary usage of water for dust control purposes during construction-related activities and PV panel washing, the Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.</p> <p>c) Less Than Significant Impact: Overall, the Project would not 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.</p> <p><i>i) Erosion and Siltation; Less Than Significant Impact:</i> The extent of potential erosion will vary depending on slope steepness/stability, vegetation/cover, concentration of runoff, and weather conditions. As noted in the Project Description (Attachment “D”) the relatively flat nature of the site reduces the need for grading which would be limited to access roads, substation, inverter pads, and switchyard. Any soils removed from these areas would be redistributed around and retained elsewhere on the Project site (i.e., along solar panel support rack alignments)⁷² The site is and will continue to have a relatively-flat topography after site construction. Also, as noted earlier, a SWPPP will be in place during construction, as</p>					

⁷⁰ “Angela Solar Project Operational Statement” February 2020. Prepared by Angiola East LLC. (included in Attachment “D” of this document).

⁷¹ Ibid.

⁷² Op. Cit.

			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
<p>described in Impact 10-a. Therefore, construction-related activities will minimally disturb the ground surface resulting in a less than significant impact from erosion and siltation.</p> <p>ii) <i>Runoff resulting in Flooding On- or Off-site; Less Than Significant Impact:</i> The site will not resulting in waters capable of flooding either on- or off-site. The site is not subject to flooding and lies within Flood Zone AE (1% annual chance flood hazard contained in channel) for the west part of the Project and Flood Zone X (area of minimal flooding) for the east part of the Project per the Federal Emergency Management Agency FIRM map.⁷³ Also, the site will not generate substantial amounts of runoff that would result in on- or off-site flooding due to the nature of the Project as a renewable energy producer (i.e., solar energy). The Project will avoid runoff type water from dust suppression activities and PV panel washing through implementation of conditions of approval and project design features. As such, the Project would result in a less than significant impact to or from this resource Item.</p> <p>iii) <i>Runoff affecting Drainage Systems and Polluted Runoff; No Impact.</i> See Items 10 c) i) and ii) .Also, the Project will not connect to any existing or planned stormwater drainage system, as such it will not provide any additional sources of polluted runoff. As noted earlier, the very nature of the Project (as a renewable energy producer) does not lend itself as a contributor of polluted runoff. Therefore, the Project would result in no impact to this resource. The Project would not 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, and as such, would result in no impact.</p> <p>d) No Impact: The Project is not located on or near any areas that would result in or be impact by a flood hazard, tsunami, or seiche zones, that would result in a risk release of pollutants due to project inundation. As noted in Item 10 c) ii), the Project does not lie within Flood Zone AE (1% annual chance flood hazard contained in channel) for the west part of the Project and Flood Zone X (area of minimal flooding) for the east part of the Project per the Federal Emergency Management Agency FIRM map; it is not exposed to or near any river, reservoirs, pond, or lake subject to seiches from earthquake activity; and it is at least 85 miles east of the nearest coastline that would be subject to tsunami. Therefore, there would be no impact from potential inundation by the flood hazard, tsunami, or seiches.</p> <p>e) No Impact: The nature of the Project (as a renewable energy producer), and the fact that its anticipated 35-year life would temporarily suspend usage of water for irrigation purposes of agricultural lands, leads to a reasonable conclusion that the Project would not conflict with or obstruct implementation of water quality control plan or sustainable groundwater management plan.</p>						
11.	LAND USE AND PLANNING					
	Would the project:					
	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"/>
Analysis:						
Environmental Setting						
The Project site is located in the western-central part of Tulare County. Tulare County is located in the San Joaquin Valley portion of the Great Central Valley of California that lies south of the Sacramento-San Joaquin Delta, and is comprised of 4,863 square miles. Tulare County is bordered by Fresno County to the north, Kings County to the west; Kern County to the south; and Inyo County to the east.						

⁷³ Federal Emergency Management Agency FIRM Panel 06107C2250E June 16, 2009. Accessed May 2020 at: map<https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd&extent=-119.24027126756349,36.137670866489145,-119.15718716111826,36.17232174266695>

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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Existing land uses in Tulare County have been organized into generalized categories that are summarized on **Table LU-1**. These lands total 3,930 square miles or approximately 81 percent of Tulare County. Open space, which includes wilderness, national forests, monuments and parks, and county parks, encompass 1,230 square miles, or approximately 25 percent of the County. Agricultural uses total over 2,150 square miles or about 44 percent of the entire county. Incorporated cities in Tulare County capture less than three percent of the entire County.

The proposed Project site has been historically and is currently used for row crops and grazing. The site is surrounded by agricultural-related land uses such as row crops, grazing land, and an adjacent solar project. There are approximately scattered rural residences within and adjacent to the Project site. As noted earlier, the proposed Project site lies approximately 21 miles southwest of the City of Tulare and approximately 1.5 miles north of the unincorporated community of Alpaugh. The proposed Project site is zoned as Exclusive Agriculture – 80. No forest or timber land is present at the proposed Project site or in the proposed Project vicinity. Overall, the Project is located in a rural location and is relatively isolated from either an urban or a rural community. The nature of the Project, a renewable energy facility (i.e., solar panel array and typical components such as inverter stations, various wiring, underground cables, combiner boxes, inverters, transformers, access/egress roads, interior roads, etc.), is located on nine adjacent parcels that does not require a division of land; as such, the parcels will remain in their current dimensions/acreages during its anticipated 35-year life span.

Table LU-1
County of Tulare Summary of Assessed Land by Generalized Use Categories⁷⁴

Generalized Land Use Category	Square Miles¹	Percentage²
Residential	110	2
Commercial	10	Less than 1%
Industrial	10	Less than 1%
Agriculture	2,150	44
Public (including airports, charitable organizations, churches, fraternal organizations, government owned land, hospitals and rest homes, institutional facilities, rehab facilities and schools)	420	9
Open Space (including national forests and parks, timber preserves)	1,230	25
Classified Subtotal	3,930	81
Unclassified (includes streets and highways, rivers, canals, etc.)	780	16
Unincorporated County Subtotal	4,710	97
Incorporated Cities	130	3
Total County	4,840	100

¹ One square mile = 640 acres.

² Percent reflect those estimated for the total land area of the County and may not equal 100 due to rounding.

Regulatory Setting

Federal

Federal regulations for land use are not relevant to the Project because it is not a federal undertaking (the Project site is not located on lands administered by a federal agency, and the project applicant is not requesting federal funding or a federal permit).

State

The Project is being evaluated pursuant to CEQA; however, there are no state regulations, plans, programs, or guidelines associated with land use and planning that are applicable to the proposed Project.

Local

Tulare County General Plan 2030 Update

⁷⁴ Tulare County General Plan 2030 Update Background Report. Page 3-53.

			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
<p>The Tulare County General Plan 2030 Update (Chapter 4 – Land Use, Chapter 8 – Environmental Resources Management and Part II Chapter 1 - Rural Valley Lands Plan) contains the following goals and policies that relate to land use and which have potential relevance to the Project’s California Environmental Quality Act (CEQA) review: <i>LU-2.1 Agricultural Lands</i> wherein the County shall maintain agriculturally-designated areas for agriculture use and by directing urban development away from valuable agricultural lands to cities, unincorporated communities, hamlets, and planned community areas where public facilities and infrastructure are available; <i>LU-5.1 Industrial Developments</i> wherein the County shall encourage a wide range of industrial development activities in appropriate locations to promote economic development, employment opportunities, and provide a sound tax base; and <i>LU-7.15 Energy Conservation</i> wherein the County shall encourage the use of solar power and energy conservation building techniques in all new development.</p> <p>a) and b) No Impact: The Project is located in an agricultural area in southwestern Tulare County, approximately 21 miles southeast of the City of Tulare and one mile south of Alpaugh. The Project will not physically divide any established community or 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. Therefore, the Project would result in no impact to these resources.</p>						
12.	MINERAL RESOURCES					
	Would the project:					
	a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	b)	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<p>Analysis:</p> <p>Environmental Setting</p> <p>Per the Tulare County General Plan Background Report, Tulare County is divided into two major physiographic and geologic provinces: the Sierra Nevada Mountains and the Central Valley. The Sierra Nevada Physiographic Province, in the eastern portion of the Tulare County, is underlain by metamorphic and igneous rock. It consists mainly of homogeneous granitic rocks, with several islands of older metamorphic rock. The central and western parts of the County are part of the Central Valley Province, underlain by marine and non-marine sedimentary rocks. It is basically a flat, alluvial plain, with soil consisting of material deposited by the uplifting of the mountains.</p> <p>Economically, the most important minerals that are extracted in Tulare County are sand, gravel, crushed rock, and natural gas. Other minerals that could be mined commercially include tungsten, which has been mined to some extent, and relatively small amounts of chromite, copper, gold, lead, manganese, silver, zinc, barite, feldspar, limestone, and silica. Minerals that are present but do not exist in the quantities desired for commercial mining include antimony, asbestos, graphite, iron, molybdenum, nickel, radioactive minerals, phosphate, construction rock, and sulfur.</p> <p>Aggregate resources are the most valuable mineral resource in Tulare County because it is a major component of the Portland cement concrete (PCC) and asphaltic concrete (AC). PCC and AC are essential to constructing roads, buildings, and providing for other infrastructure needs. There are four streams that have provided the main source of high quality sand and gravel in Tulare County: Kaweah River, Lewis Creek, Deer Creek and the Tule River. The highest quality deposits are located at the Kaweah and Tule Rivers. Lewis Creek deposits are considerably inferior to those of the other two rivers.</p> <p>Regulatory Setting</p> <p>Federal</p>						

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
<p>There are no federal or local regulations pertaining to mineral resources relevant to the proposed project.</p> <p>State</p> <p>California Surface Mining and Reclamation Act of 1975</p> <p>Enacted by the State Legislature in 1975, the Surface Mining and Reclamation Act (SMARA), Public Resources Code Section 2710 et seq., insures a continuing supply of mineral resources for the State. The act also creates surface mining and reclamation policy to assure that:</p> <ul style="list-style-type: none"> • Production and conservation of minerals is encouraged; • Environmental effects are prevented or minimized; • Consideration is given to recreational activities, watersheds, wildlife, range and forage, and aesthetic enjoyment; • Mined lands are reclaimed to a useable condition once mining is completed; and • Hazards to public safety both now and in the future are eliminated. <p>Areas in the State (city or county) that do not have their own regulations for mining and reclamation activities rely on the Department of Conservation, Division of Mines and Geology, Office of Mine Reclamation to enforce this law. SMARA contains provisions for the inventory of mineral lands in the State of California. The State Geologist, in accordance with the State Board's Guidelines for Classification and Designation of Mineral Lands, must classify Mineral Resource Zones (MRZ) as designated below:</p> <ul style="list-style-type: none"> • MRZ-1. Areas where available geologic information indicates that there is minimal likelihood of significant resources. • MRZ-2. Areas underlain by mineral deposits where geologic data indicate that significant mineral deposits are located or likely to be located. • MRZ-3. Areas where mineral deposits are found but the significance of the deposits cannot be evaluated without further exploration. • MRZ-4. Areas where there is not enough information to assess the zone. These are areas that have unknown mineral resource significance. <p>SMARA only covers mining activities that impact or disturb the surface of the land. Deep mining (tunnel) or petroleum and gas production is not covered by SMARA.</p> <p>Local</p> <p><u>Tulare County General Plan 2030 Update</u></p> <p>The Tulare County General Plan 2030 Update: Chapter 8 – Environmental Resources Management contains the following goals and policies that relate to mineral resources and which have potential relevance to the Project's California Environmental Quality Act (CEQA) review: <i>ERM-2.1 Conserve Mineral Deposits</i> wherein the County will encourage the conservation of identified and/or potential mineral deposits, recognizing the need for identifying, permitting, and maintaining a 50 year supply of locally available PCC grade aggregate; and <i>ERM-4.6 Renewable Energy</i> wherein the County shall support efforts, when appropriately sited, for the development and use of alternative energy resources, including renewable energy such as wind, solar, bio-fuels and co-generation.</p> <p>a) No Impact: Mineral resources located within Tulare County are predominately sand and gravel resources primarily provided by four streams: Kaweah River, Lewis Creek, Deer Creek, and the Tule River. The Tule river is the nearest of these four streams to the proposed Project site and is located approximately 25 miles to the east. Due to the distance from these streams, the Project will not result in the loss of an available known mineral resource. The Tulare County General Plan Update (see Figure 8.1 Mineral Resource Zone in the General Plan) indicates the locations of State-designated Mineral Resource Zones. According to the map, the Project site is not located in or within 10 miles of a Mineral Resource Zone. The California Department of Conservation indicates that the nearest, active mining operation (Deer Creek Ranch, mining sand and gravel) is located</p>					

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT	
<p>approximately 25 miles east of the Project site.⁷⁵ As such, the Project would not 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.</p>						
<p>b) No Impact: The proposed Project site is not delineated on a local land use plan as a locally important mineral resource recovery site. Therefore, the Project would not 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.</p>						
13.	NOISE					
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b)	Generation of excessive ground-borne vibration or ground-borne 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"/>
<p>Analysis:</p> <p>Environmental Setting</p> <p>The proposed Project site is designated and has historically been used for agricultural uses. The proposed solar energy generation facility site is currently and has historically been used for row crops, and grazing. The site is predominantly surrounded by agricultural land and scattered rural residences. Typically sensitive receptors on noise-sensitive lands include residences, hospitals, places of worship, libraries and schools, nature and wildlife preserves, and parks. Noise sensitive land uses located in the proposed Project vicinity are rural residences that are located within 100-feet of the Project site.</p> <p>Within the Tulare County General Plan Background Report, existing noise levels were recorded within unincorporated areas of County. Noise level data collected during continuous monitoring included the hourly Leq and Lmax and the statistical distribution of noise levels over each hour of the sample period. The community noise survey results indicate that typical noise levels in noise-sensitive areas of the unincorporated areas of Tulare County are in the range of 29-65 dB Ldn. As would be anticipated, the quietest areas are those that are removed from major transportation-related noise sources and industrial or stationary noise sources.⁷⁶</p> <p>Noise levels around the Project site are associated with farm equipment and associated agricultural activities. Maximum noise levels generated by farm-related tractors typically range from 77 to 85 dB at a distance of 50 feet from the tractor, depending on the horsepower of the tractor and the operating conditions. Due to the seasonal nature of the agricultural industry, there are often extended periods of time when no noise is generated at the proposed Project site, followed by short-term periods of intensive mechanical equipment usage and corresponding noise generation. During periods without noise generated by agricultural production, noise levels would be typical of other noise-sensitive areas in unincorporated Tulare County, as discussed above.</p>						

⁷⁵ State of California Department Of Conservation Division of Mine Reclamation, Maps: Mines and Mineral Resources accessed May 2020 at: <https://maps.conservation.ca.gov/mol/index.html>.

⁷⁶ County of Tulare General Plan 2030 Background Report. Page 8-77.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
<p>The Tulare County General Plan Background Report Safety section and the Tulare County General Plan 2030 Update serve as the primary policy statement by the County for implementing policies to maintain and improve the noise environment in Tulare County. The General Plan presents Goals and Objectives relative to planning for the noise environment within the County. Future noise/land use incompatibilities can be avoided or reduced with implementation of the Tulare County noise criteria and standards. Tulare County realizes that it may not always be possible to avoid constructing noise sensitive developments in existing noisy areas and therefore provides noise reduction strategies to be implemented in situations with potential noise/land use conflicts.⁷⁷</p> <p>Regulatory Setting</p> <p><i>Federal</i></p> <p><u>Federal Vibration Policies</u></p> <p>The Federal Railway Administration (FRA) and the Federal Transit Administration (FTA) have published guidance relative to vibration impacts. According to the FRA, fragile buildings can be exposed to ground-borne vibration levels of 0.5 PPV without experiencing structural damage. The FTA has identified the human annoyance response to vibration levels as 80 RMS (Root Mean Square = The square root of the arithmetic average of the squared amplitude of the signal).⁷⁸</p> <p><i>State</i></p> <p>The California Noise Control Act was enacted in 1973 (Health and Safety Code § 46010 et seq.), and states that the Office of Noise Control (ONC) should provide assistance to local communities in developing local noise control programs. It also indicates that ONC staff will work with the OPR to provide guidance for the preparation of the required noise elements in city and county General Plans, pursuant to Government Code § 65302(f). California Government Code § 65302(f) requires city and county general plans to include a noise element. The purpose of a noise element is to guide future development to enhance future land use compatibility.</p> <p><i>Local</i></p> <p>Analytical noise modeling techniques, in conjunction with actual field noise level measurements, were used to develop generalized Ldn or Community Noise Equivalent Level (CNEL) contours for traffic noise sources within Tulare County for existing conditions. Traffic data representing annual average daily traffic volumes, truck mix, and the day/night distribution of traffic for existing conditions (1986) and future were obtained from the Tulare County Public Works Department and used in the Tulare County Noise Element. The Tulare County General Plan 2030 Update Health & Safety Element (2012) includes noise and land use compatibility standards for various land uses. These are shown in Table NOI-1 Land Use Compatibility for Community Noise Environments⁷⁹;</p> <p><u>Tulare County General Plan 2030 Update</u></p> <p>The Tulare County General Plan 2030 Update: Chapter 10 – Health and Safety contains the following goals and policies that relate to noise and which have potential relevance to the Project’s California Environmental Quality Act (CEQA) review: <i>HS-8.4 Airport Noise Contours</i> wherein the County shall ensure new noise sensitive land uses are located outside the 60 CNEL contours of all public use airports; <i>HS-8.6 Noise Level Criteria</i> wherein the County shall ensure noise level criteria applied to land uses other than residential or other noise-sensitive uses are consistent with the recommendations of the California Office of Noise Control (CONC); <i>HS-8.8 Adjacent Uses</i> wherein the County shall not permit development of new industrial, commercial, or other noise-generating land uses if resulting noise levels will exceed 60 dB Ldn (or CNEL) at the boundary of areas designated and zoned for residential or other noise-sensitive uses, unless it is determined to be necessary to promote the public health, safety and welfare of the County; <i>HS-8.11 Peak Noise Generators</i> wherein the County shall limit noise generating activities, such as construction, to hours of normal business operation (7 a.m. to 7 p.m.). No peak noise generating activities shall be allowed to occur outside of normal business hours without County approval; <i>HS-8.18 Construction Noise</i> wherein the County shall seek to limit the potential noise impacts of construction activities by limiting construction activities to the hours of 7 a.m. to 7 p.m., Monday through Saturday when construction activities are located near sensitive receptors. No construction shall occur on Sundays or national holidays without a</p>					

⁷⁷ Ibid.

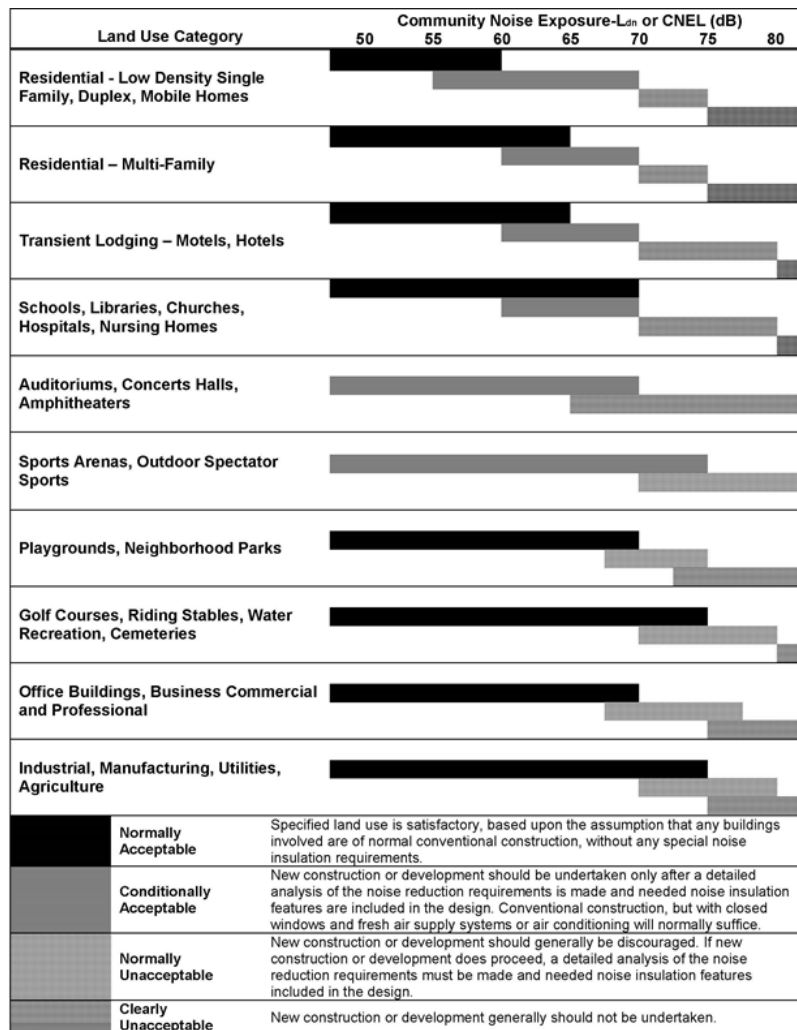
⁷⁸ U.S. Department of Transportation, “The Noise and Vibration Impact Assessment Manual”. September 2018. FTA Report No. 0123 Federal Transit Administration Page 113. https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf

⁷⁹ Tulare County General Plan 2030 Update. Goals and Policies Report. Page 10-25.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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permit from the County to minimize noise impacts associated with development near sensitive receptors; *HS-8.19 Construction Noise Control* wherein the County shall ensure that construction contractors implement best practices guidelines (i.e. berms, screens, etc.) as appropriate and feasible to reduce construction-related noise-impacts on surrounding land uses.

Table NOI-1



[Source: Figure Noise-1, State Land Use Compatibility Standards for Community Noise Environment: California Governor's Office of Planning and Research, October 2003]

- a) **Less Than Significant Impact With Mitigation:** The proposed Project site is zoned for agricultural purposes and is predominantly in crop production and scattered rural residences. The Tulare County General Plan Background Report indicates that typical noise levels in noise-sensitive areas of the unincorporated areas of Tulare County are in the range of 29-65 dB Ldn. The proposed Project will increase ambient noise levels, temporarily, intermittently, and on the short-term, during construction-related activities; however, the increase in noise levels will not be permanent in nature or exceed Tulare County's Maximum Acceptable Ambient Noise Exposure for Various Land Uses. The ambient noise environment in the proposed Project vicinity is dominated by agricultural-related uses, including tractor-intensive work. The magnitude and frequency of the existing ambient noise levels may vary considerably over the course of the day and throughout the week. The variation is caused by different reasons, for example, changing weather conditions, the effects of rotation of agricultural crops, and other human activities.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
<p><u>Project Operational Noise Impacts:</u> The Project will largely be self-sufficient upon completion of construction, with only periodic monitoring and maintenance activities required. Once placed in service, the Project will be operated remotely. Project employees will frequent the site for maintenance and panel washing resulting in approximately 264 total trips per year. This estimate includes up to eight (8) trips per day during the 20 total days of panel washing activities per year and approximately five (5) trips per week to address security or maintenance issues, an estimated average of 0.72 trip per day over a typical year. Except for biannual panel washing activities, emergency repair events, and occasional security checks, the facility would not require any full-time employees located on or traveling to the site.</p> <p>Noise from electrical equipment, such as transformers, is characterized as a discrete low frequency hum. The noise from transformers is produced by alternating current flux in the core that causes it to vibrate. As the pad mounted transformers are housed in metal cabinets and are located a minimum of 200 feet to the interior of the Project, the noise levels produced are anticipated to be at or below existing ambient noise levels that the Project site undergoes during current agricultural activities (which include the use of a tractor for the grading of the site at least four times a year).</p> <p>The County of Tulare's General Plan 2030 Update Health and Safety Element (2012) sets the standard noise threshold of 60 dB Ldn at the exterior of nearby residences. Exterior noise levels in the range of 45-60 dB Ldn or Community Noise Equivalent Level (CNEL) or below are generally considered acceptable for residential land uses and 45-75 dB Ldn (or CNEL) or below are considered acceptable for industrial, manufacturing utilities, and agriculture land uses. There are rural residences and agricultural outbuildings that are within vicinity of the Project site. There are three (3) residences outside of the solar array but within the Project parcel boundaries. Two additional residences are located 230 feet and 1,500 feet north of the Project site; the next nearest property is located 4,000 feet west of the Project site.</p> <p>The Project will employ passive solar power generation through the use of fix-mounted or single axis tracking arrays. Should tracking arrays be used they will be powered by drive motors to track the east/west path of the sun on a single axis throughout the day. Noise from each tracker motor ranges from 62 dBA to 63 dBA at one meter distance. Due to the dispersed layout of tracker motors, their distance from sensitive receptors, and the intermittent noise generating activity, the noise associated with the tracking arrays is not anticipated to exceed the existing ambient noise levels of the Project site. Therefore, there will be no long term effects on existing ambient noise levels from the operation of the proposed Project.</p> <p>As discussed earlier, operational noise is anticipated to be below Tulare County General Plan noise standards of 60 dB Ldn (or CNEL) or less at the exterior of nearby residences and 45 dB Ldn (or CNEL) or less within interior living spaces. The impact will be less than significant.</p> <p><u>Project Construction Noise Impacts:</u> Project construction will include site preparation, grading, installation of the solar panels, construction of a new transmission line to the PG&E Olive substation along private property and un-maintained County roads, and site cleanup work is expected to last for approximately six (6) months. Construction-related short-term, intermittent, temporary noise levels will be higher than existing ambient noise levels in the Project area today, but will no longer occur after construction is completed.</p> <p>Solar generation facility construction is performed in discrete steps, each of which has its own mix of equipment and, consequently, its own noise-generating characteristics. These various sequential phases will change the character of the noise generated on the Project site. Therefore, the noise levels vary as construction progresses. Despite the variety in the type and size of construction equipment, there are similarities in the dominant noise sources and their anticipated noise levels. Table NOI-2 indicates the anticipated noise levels of the typical construction-related equipment (i.e., graders, trenchers, tractors) based on a distance of 50-feet between the equipment and the sensitive noise receptor. Installation of solar panel arrays will involve the installation of steel beams using percussive or vibration equipment in a manner similar to installing freeway guardrails. The solar panel installation will include earthwork, grading, and erosion control, and erection of the panels, supports, and associated electrical equipment.</p> <p>Installation of solar panel arrays will involve the installation of steel beams using percussive or vibration equipment in a manner similar to installing freeway guardrails. The solar panel installation will include noise generated as a result of construction-related activities such as earthwork, grading, trenching, erosion control, erection of the panels, supports, and associated electrical equipment. Construction of the new transmission line to the SCE Bliss substation will require the use of drill rigs, cranes, bucket trucks, etc.</p>					

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
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Table NOI-2 Construction Equipment Noise Levels⁸⁰	
Equipment	Typical Noise Level (dBA) 50 ft from Source
Air Compressor	80
Backhoe	80
Ballast Equalizer	82
Ballast Tamper	83
Compactor	82
Concrete Mixer	85
Concrete Pump	82
Concrete Vibrator	76
Crane, Derrick	88
Crane, Mobile	83
Dozer	85
Generator	82
Grader	85
Impact Wrench	85
Jack Hammer	88
Loader	85
Paver	85
Pile-driver (Impact)	101
Pile-driver (Sonic)	95
Pneumatic Tool	85
Pump	77
Rail Saw	90
Rock Drill	95
Roller	85
Saw	76
Scarifier	83
Scraper	85
Shovel	82
Spike Driver	77
Tie Cutter	84
Tie Handler	80
Tie Inserter	85
Truck	84

The General Plan 2030 Update Health and Safety Element (2012) does not identify short-term, construction-noise-level thresholds. It limits noise generating activities (such as construction) to hours of normal business operation unless specific County approval is given. Construction-related activities will be restricted to daytime hours and will be short-term and temporary in nature.

Construction noise will be similar in character to existing noise in the area resulting from agricultural operations. Construction will occur throughout the Project site, will not be concentrated or confined in the area directly adjacent to sensitive receptors and will result in short-term, temporary periodic increases in noise. Normally, construction-related activities occur in small construction zones with noise emanating from the various points in the area. In several instances, the sensitive receptors located in the Project area are shielded from the construction areas by distance, existing roadways, agricultural vegetation, and agricultural-related structures.

Construction-related activities will adhere to the Tulare County General Plan goals and policies, the Tulare County Zoning Ordinance, and **Mitigation Measures NOI-1** through **NOI-5**. As there will be no long-term, on-going, operational noise

⁸⁰ U.S. Department of Transportation, "The Noise and Vibration Impact Assessment Manual". September 2018. FTA Report No. 0123 Federal Transit Administration Page 175. https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
<p>(outside of equipment used to spray wash the panels and during maintenance activities (as needed), Mitigation Measures NOI-1 through NOI-5, would reduce the short-term, intermittent, and temporary (approximately nine months) noise from construction-related activities. Therefore, implementation of Mitigation Measures NOI-1 through NOI-5 would reduce the impacts from construction-related activities noise to a less than significant impact with mitigation.</p> <p>Mitigation Measure NOI-1: Internal combustion engines shall be equipped with a muffler of a type recommended by the manufacturer.</p> <p>Mitigation Measure NOI-2: Construction activities, excluding activities required to occur without interruption or activities that would pose a significant safety risk to workers or citizens, shall be limited to between the daytime hours of 7:00 a.m. and 7:00 p.m.</p> <p>Mitigation Measure NOI-3: Portable/stationary equipment (e.g., generators, compressors) shall be located at the furthest distance from the nearest residential dwelling.</p> <p>Mitigation Measure NOI-4: As directed by the County resident engineer, the contractor shall implement appropriate additional noise abatement measures including, but not limited to, siting the location of stationary construction equipment away from sensitive noise receptors to the greatest extent feasible, turning off idling equipment after no more than five minutes of inactivity, and rescheduling construction activity to avoid noise-sensitive days or times.</p> <p>Mitigation Measure NOI-5: Use alternative pile installation techniques (e.g., drilled piles) to the extent possible.</p> <p>b) Less Than Significant Impact: “Vibration is an oscillatory motion that can be described in terms of the displacement, velocity, or acceleration. Because the motion is oscillatory, there is no net movement of the vibration element and the average of any of the motion metrics is zero. Displacement is the most intuitive metric. For a vibrating floor, the displacement is simply the distance that a point on the floor moves away from its static position. The velocity represents the instantaneous speed of the floor movement and acceleration is the rate of change of the speed. Although displacement is easier to understand than velocity or acceleration, it is rarely used for describing ground-borne vibration. Most transducers used for measuring ground-borne vibration use either velocity or acceleration. Furthermore, the response of humans, buildings, and equipment to vibration is more accurately described using velocity or acceleration.”⁸¹</p> <p>“The effects of ground-borne vibration can include perceptible movement of floors in buildings, rattling of windows, shaking of items on shelves or hanging on walls, and low-frequency noise (ground-borne noise). Building damage is not a factor for typical transportation projects, but in extreme cases, such as during blasting or pile-driving during construction, vibration could cause damage to buildings. Although the perceptibility threshold is approximately 65 VdB, human response to vibration is not usually substantial unless the vibration exceeds 70 VdB. A vibration level that causes annoyance is well below the damage risk threshold for typical buildings (100 VdB).”⁸² “Ground-borne vibration is almost never a problem outdoors. Although the motion of the ground may be perceived, without the effects associated with the shaking of a building, the motion does not provoke the same adverse human reaction.”⁸³ Table NOI-3 presents the human response to different levels of ground-borne vibration and noise. “The vibration level (VdB) is presented with the corresponding frequency assuming that the vibration spectrum peaks at 30 Hz or 60 Hz.(xi) The groundborne noise levels (dBA) are estimated for the specified vibration velocity with a peak vibration spectrum of 30 Hz (Low Freq) and 60 Hz (Mid Freq). Note that the human response differs for vibration velocity level based on frequency. For example, the noise caused by vibrating structural components may cause annoyance even though the vibration cannot be felt. Alternatively, a low frequency vibration can cause annoyance while the ground-borne noise level it generates does not.”⁸⁴</p>					

⁸¹ U.S. Department of Transportation, Federal Transit Administration, Transit Noise & Vibration Impact Assessment, September 2018. Page 108.

⁸² Ibid. 118

⁸³ Op. Cit.

⁸⁴ Op. Cit. 119.

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Table NOI-3			
Human Response to Different levels of Ground-Bourne Vibration and Noise⁸⁵			
Vibration Velocity Level	Noise Level		Human Response
	Low Freq*	Mid Freq**	
65 VdB	25 dBA	40dBA	Approximate threshold of perception for many humans. Low frequency sound: usually inaudible. Mid-frequency sound: excessive for quiet sleeping areas.
75 VdB	35 dBA	50dBA	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find transit vibration at this level annoying. Low-frequency noise: tolerable for sleeping areas. Mid-frequency noise: excessive in most quiet occupied
85 VdB	45 dBA	60dBA	Vibration tolerable only if there are an infrequent number of events per day. Low-frequency noise: excessive for sleeping areas. Mid-frequency noise: excessive even for infrequent events for some activities.
*Approximate noise level when vibration spectrum peak is near 30 Hz.			
**Approximate noise level when vibration spectrum peak is near 60 Hz.			

Table NOI-4 presents average source levels in terms of velocity for various types of construction equipment measured under a wide variety of construction activities.

Table NOI-4			
Vibration Source Levels for Construction Equipment⁸⁶			
Equipment		PPV at 25 ft. in/sec	Approximate Lv * at 25 ft
Pile Driver (impact)	upper range	1.518	112
	typical	0.544	104
Pile Driver (sonic)	upper range	0.734	105
	typical	0.17	93
Clam shovel drop (slurry wall)		0.202	94
Hydromill (slurry wall)	in soil	0.008	66
	in rock	0.017	75
Vibratory Roller		0.21	94
Hoe Ram		0.089	87
Large bulldozer		0.089	87
Caisson drilling		0.089	87
Loaded trucks		0.076	86
Jackhammer		0.035	79
Small bulldozer		0.003	58
*RMS velocity in decibels, VDB re 1 micro-in/sec			

Typical outdoor sources of perceptible ground borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. Construction vibrations can be transient, random, or continuous. The approximate threshold of vibration perception is 65 VdB, while 85 VdB is the vibration acceptable only if there are an infrequent number of events per day.

Construction Related Vibration Impacts: The use of impact post driving or drilling will be utilized to install the solar arrays and drilling and cranes for construction of the new transmission line. While these construction-related activities will result in minor amounts of groundbourne vibration, such groundbourne noise or vibration will attenuate rapidly from the source and will not be generally perceptible outside of the construction areas. As such, impacts to the neighboring sensitive receptors will be less than significant.

⁸⁵ Op. Cit. 120.

⁸⁶ Op. Cit. 184.

			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
<p><u>Project Operational Vibration Impacts:</u> As described in Impact 13 a), the Project's operations and maintenance will result in minimal maintenance activities. Other than the minimal traffic trips related to maintenance, there will be no vibrational impacts from Project operation. Therefore, the exposure of persons to or generation of excessive groundborne vibration.</p> <p>Therefore, the Project would result in a less than significant impact and would not generate excessive groundbourne vibration or groundbourne noise.</p> <p>c) No Impact: The nearest public airport or public use or airport, Mefford Field Airport (in the City of Tulare) is located approximately 21 miles northeast of the Project site. Therefore, the Project site is located outside of the 55 dB CNEL noise contour. The proposed Project is not within an airport land use plan or within two miles of a public airport or public use airport. The proposed Project will not conflict with Tulare County Airport Land Use Plan policy. The project would not expose people residing or working in the project area to excessive noise levels. Therefore, there will be no impact.</p>						
14.	POPULATION AND HOUSING					
	Would the project:					
	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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	b)	Displace substantial numbers 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"/>
<p>Analysis:</p> <p>Environmental Setting</p> <p>The California Department of Finance (DOF) provides population estimates for Tulare County. According to DOF population estimates, between 2010 and 2018, Tulare County grew from 442,179 to 475,834⁸⁷ persons; an increase of 33,655 persons. Between 2010 and 2018, the County experienced an average yearly population growth of 0.84 percent, for a total (Year 2018) population of 475,837.</p> <p>The annual growth rate for the entire County is anticipated to increase from 1.9 percent to 2.4 percent through 2030. While the percentage of the County's population living in incorporated cities is anticipated to increase by 2030, the percentage of persons living in unincorporated areas in the County will decrease by 2030. The Tulare County Association of Governments (TCAG) projects an additional 313,970 people to be living in Tulare County by 2030 for a total projected population of approximately 742,970.⁸⁸</p> <p>Regulatory Setting</p> <p>Federal</p> <p><u>U.S. Department of Housing and Urban Development (HUD)</u></p> <p>"HUD's mission is to create strong, sustainable, inclusive communities and quality affordable homes for all. HUD is working to strengthen the housing market to bolster the economy and protect consumers; meet the need for quality affordable rental homes:</p>						

⁸⁷ State of California, Department of Finance. E-4 Population Estimates for City, Counties, and the State, 2018-2018. Sacramento, California. November 2012 Accessed in May 2019 at: <http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-4/2010-18/>

⁸⁸ Tulare County General Plan 2030 Update. General Plan Background Report. Table 2-16. Page 2-31.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
<p>utilize housing as a platform for improving quality of life; build inclusive and sustainable communities free from discrimination; and transform the way HUD does business.”⁸⁹ However, as the Project does not propose any housing, HUD or other federal regulations do not apply to this Project.</p> <p><i>State</i></p> <p><u>California Department of Housing and Community Development (HCD)</u></p> <p>HCD’s mission is to “Promote safe, affordable homes and strong vibrant communities throughout California.”⁹⁰ “In 1977, the State Department of Housing and Community Development (HCD) adopted regulations under the California Administrative Code, known as the Housing Element Guidelines, which are to be followed by local governments in the preparation of local housing elements. AB 2853, enacted in 1980, further codified housing element requirements. Since that time, new amendments to State Housing Law have been enacted. Each of these amendments has been considered during development of this Housing Element.”⁹¹</p> <p><u>California Relocation Assistance Act</u></p> <p>The State of California adopted the California Relocation Assistance Act (California Government Code §7260 et seq.) in 1970. This State law, which follows the federal Uniform Relocation Assistance and Real Property Acquisition Act, requires public agencies to provide procedural protections and benefits when they displace businesses, homeowners, and tenants in the process of implementing public programs and projects. This State law calls for fair, uniform, and equitable treatment of all affected persons through the provision of relocation benefits and assistance to minimize the hardship of displacement on the affected persons.</p> <p><i>Local</i></p> <p><u>Tulare County Regional Housing Needs Assessment Plan 2014-2023</u></p> <p>The Tulare County Association of Governments (TCAG) was responsible for allocating the State’s projections to each local jurisdiction within Tulare County including the County unincorporated area, which is reflected in this Housing Element. Tulare County has no control over the countywide population and housing projections provided to TCAG when it prepared the Regional Housing Needs Assessment Plan.</p> <p><u>Tulare County Regional Blueprint 2009</u></p> <p>This Blueprint includes the following preferred growth scenario principals:⁹²</p> <ul style="list-style-type: none"> ➤ Increase densities county-wide by 25% over the status quo densities; ➤ Establish light rail between cities; ➤ Extend Highway 65 north to Fresno County; ➤ Expand transit throughout the county; ➤ Maintain urban separators around cities; and ➤ Growth will be directed toward incorporated cities and communities where urban development exists and where comprehensive services and infrastructure are or will be provided. <p><u>Tulare County Housing Authority</u></p> <p>“The Housing Authority of the County of Tulare (HATC) has been officially designated as the local public housing agency for the County of Tulare by the Board of Supervisors and was created pursuant to federal and state laws. ...HATC is a unique hybrid: a public sector agency with private sector business practices. Their major source of income is the rents from residents. The HATC mission is "to provide affordable, well-maintained rental housing to qualified low- and very low-income families. Priority shall be</p>					

⁸⁹ U.S. Department of Housing and Urban Development, Mission, <https://www.hud.gov/about/mission>. Accessed May 2020.

⁹⁰ California Department of Housing and Community Development, Mission, <http://www.hcd.ca.gov/about/mission.shtml>. Accessed May 2020.

⁹¹ Tulare County Housing Element 2015 Update. Page 1-3.

⁹² TCAG. Tulare County Regional Blueprint. May 2009. Page 18. <http://www.tularecog.org/RTPSCS/TulareCountyBluePrint.pdf>. Accessed May 2020.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT	
<p>given to working families, seniors and the disabled. Tenant self sufficiency and responsibility shall be encouraged. Programs shall be self-supporting to the maximum extent feasible.””⁹³</p> <p>“HATC provides rental assistance to very low and moderate-income families, seniors and the handicapped throughout the county. HATC offers many different programs, including the conventional public housing program, the housing choice voucher program (Section 8), the farm labor program for families with farm labor income, senior housing programs, and other programs. They also own or manage some individual subsidized rental complexes that do not fall under the previous categories, and can provide information about other affordable housing that is available in Tulare County. All programs are handicap accessible. Almost all of the complexes have 55-year recorded affordability covenants.”⁹⁴</p> <p><u>Tulare County General Plan/Housing Element Policies</u></p> <p>As this is a renewable energy project (i.e., no housing units are proposed), there are no policies from the Tulare County General Plan/Housing Element that would apply to this Project.</p> <p>a) No Impact: The proposed Project is the construction and operation of a new solar energy generation facility and construction of a new transmission line to the PG&E Olive substation approximately one mile north of the Project site along private property and un-maintained County road easements. Total Project construction will take approximately six-to-nine months and will require approximately 100-300 temporary construction workers depending upon which phase of the Project they are involved. Construction workers may be drawn from the local and regional area. No employees will be stationed at the site. Workers will only visit the site for occasional cleaning, maintenance, and repair. The proposed Project will not induce population growth. There will be no impact. 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)</p> <p>b) No Impact: The proposed Project is the construction and operation of a new solar energy generation facility and construction of a new transmission line to the PG&E Olive substation approximately one mile north of the Project site along private property and un-maintained County road easements. Total Project construction will take approximately six-to-nine months and will require approximately 100-300 temporary construction workers depending upon which phase of the Project they are involved. The site would be monitored remotely and will not require any permanent, on-site employees. The workers are anticipated to be drawn from the nearby, local labor and regional workforce. As such, the Project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.</p>						
15.	PUBLIC SERVICES					
	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:					
	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"/>
Analysis:						
Environmental Setting						
The Tulare County Sheriff Pixley Patrol Sub-station is the nearest law enforcement agency resource to the Project site and is located approximately 12 miles northeast of the proposed site.						

⁹³ Tulare County Housing Element 2015 Update. Page 5-12. <http://generalplan.co.tulare.ca.us/documents/GP/001Adopted%20Tulare%20County%20General%20Plan%20Materials/110Part%20I%20Voluntary%20Elements%20Chapters%206,%2012%20and%2015/001CHP%206%20Tulare%20County%20Housing%20Element%20Update%202015/CHP%206%20TULARE%20COUNTY%20HOUSING%20ELEMENT%20UPDATE%202015.pdf>

⁹⁴ Ibid.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
<p>Tulare County Fire Department has 28 stations that are situated throughout the County within its most densely populated areas. Tulare County Fire Department Station 9 (located in the Alpaugh) is the nearest station with a distance of approximately 1.6 miles north of the proposed Project site.</p> <p>The nearest schools, Alpaugh Elementary School, Alpaugh Jr. and Sr. High School, California Connections Academy (a charter school), and Tule Continue High School, are located approximately 1.5 miles north of the proposed Project site in Alpaugh.</p> <p>Alpaugh Community Park, in the unincorporated community of Alpaugh is approximately 1.8 miles north of the site. The nearest operational landfill is Teapot Dome Landfill, approximately 23 miles northeast of the proposed Project site. When it becomes operational in 2020-2021 (estimated), the Woodville Landfill is located approximately 12 miles east of the Project site.</p> <p>Regulatory Setting</p> <p><i>Federal</i></p> <p>None that are applicable to this Project.</p> <p><i>State</i></p> <p><u>California Fire Code and Building Code</u></p> <p>The purpose of the California Fire Code (Title 24, Part 9 of the California Code of Regulations) is to establish the minimum requirements consistent with nationally recognized good practices to safeguard the public health, safety and general welfare from the hazards of fire, explosion or dangerous conditions in new and existing buildings, structures and premises, and to provide safety and assistance to fire fighters and emergency responders during emergency operations.⁹⁵</p> <p><i>Local</i></p> <p><u>Tulare County General Plan 2030 Update</u></p> <p>The following Tulare County General Plan 2030 Update, Chapter 14 – Public Facilities and Services, contains the following policies that relate to public services and may apply to this Project: <i>PFS-7.2 Fire Protection Standards</i> wherein the County shall require all new development to be adequately served by water supplies, storage, and conveyance facilities supplying adequate volume, pressure, and capacity for fire protection; <i>PFS-7.5 Fire Staffing and Response Time Standards</i> wherein the County shall strive to maintain fire department staffing and response time goals consistent with National Fire Protection Association (NFPA) standards; <i>PFS-7.6 Provision of Station Facilities and Equipment</i> wherein the County shall strive to provide sheriff and fire station facilities, equipment (engines and other apparatus), and staffing necessary to maintain the County's service goals. The County shall continue to cooperate with mutual aid providers to provide coverage throughout the County; <i>PFS-7.12 Design Features for Crime Prevention and Reduction</i> wherein the County shall promote the use of building and site design features as means for crime prevention and reduction; and <i>PFS-7.9 Sheriff Response Time</i> wherein the County shall work with the Sheriff's Department to achieve and maintain a response time of:</p> <ol style="list-style-type: none"> 1. Less than 10 minutes for 90 percent of the calls in the valley region; and 2. 15 minutes for 75 percent of the calls in the foothill and mountain regions. <p>The proposed Project will not rely on the addition or alteration of any public services. The subject site is within the southwestern portion of Tulare County and will utilize existing services provided by Tulare County. There will be a less than significant impact.</p> <p>a) Fire Protection – Less Than Significant Impact: The County of Tulare will continue to provide fire protection services to the proposed Project site upon development. Tulare County Fire's Station No. 9 is located at 3939 Avenue 54 in Alpaugh approximately 1.6 miles north of the Project site. As such, it is well within the response times indicated in <i>PFS 7.5</i>, above. No residential or office construction is identified with this Project. Vegetation that could present a fire hazard will be removed from</p>					

⁹⁵ 2016 California Fire Code (Title 24, Part 9 of the California Code of Regulations). Page 3. Accessed May 2019. <https://www.citymb.info/Home/ShowDocument?id=28089>

			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
<p>the Project site. Additionally, gravel will likely be placed around high voltage equipment to prevent the spread of fire in the unlikely event of an explosion. As a result of these project design features, impacts to fire protection services will be less than significant.</p> <p>b) Police Protection - Less than Significant: The County of Tulare will continue to provide police protection services to the Project site upon development. The Tulare County Sheriff Pixley Patrol Sub-station is the nearest law enforcement agency resource to the Project site and is located approximately 12 miles northeast of the proposed site. As such, the ability to respond in the Alpaugh area is consistent with <i>PFS-7.9 Sheriff Response Time</i>. As discussed in Item 14 a), no residential or office construction is proposed for this Project. The Applicant is uncertain if security light will be necessary; however, if required the applicant will install motion activated lighting which would be hooded and directed downward to minimize off-site light and glare. The Project will include perimeter, six (6)-foot tall fencing with security wire and remotely viewed monitoring will be present across the facilities to lessen any potential impacts from theft and vandalism. As a result of these measures, any impact to police services will be less than significant.</p> <p>c) Schools – No Impact: The nearest schools, Alpaugh Elementary School, Alpaugh Jr. and Sr. High School, California Connections Academy (a charter school), and Tule Continue High School, are located approximately 1.5 miles north of the proposed Project site in Alpaugh. However, as discussed in Item 14 a), the Project will not include construction of any residential structures which could result in increases of school-aged children, nor change the existing land use. The Project will not result in an increase of population that will require additional school facilities because no employees will be assigned to on-site occupancy. There will be no impact.</p> <p>d) Parks – No Impact: Alpaugh Community Park is the nearest park and is located at the northwest corner of Park Avenue and Tule Road approximately 1.8 miles north of the proposed Project site. As the proposed Project will not induce population growth, the Project will not create a need for additional park or recreational services. No employees will be assigned to on-site occupancy at the Project site. There will be no impact.</p> <p>e) Other public facilities – No Impact: There are no other public services (such as wastewater treatment facilities/systems) near the Project site. The nearest public use utility is the PG&E Olive 66-kV substation located approximately one mile north of the Project site. PG&E limits the amount of direct line taps into transmission lines and requires most projects to connect to a PG&E substation or to build a new PG&E substation. As the proposed Project is located directly south of the existing Olive 66-kV substation it will have minimal impacts in order for it to be connected to the substation via a new transmission line along private property and un-maintained County road utility easements will connect to the Olive substation and augment the power flow to the PG&E Electric Transmission System. As a result of the Project’s location, any impact to the electrical transmission systems will be less than significant.</p>						
16.	RECREATION					
	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"/>

Analysis:

Environmental Setting

“Tulare County contains several county, state, and federal parks. Aside from parks in the county, there are many open space areas as well. This section will highlight these various parks and open space areas and identify recreational opportunities within them.”⁹⁶ Two new parks were completed and became operational in the unincorporated communities of Plainview (Plainview Community Park) in 2016 and Earlimart (Earlimart Community Park) in 2017. In addition to the 15 parks and recreation facilities that are owned and operated by Tulare County, there are State Parks and Forests, National Parks and National Forests, trails, and recreational areas. Alpaugh Community Park (a 3-acre facility) is the nearest park to the Project site and located approximately 1.8 miles north of the proposed Project site. Lastly, each incorporated city in the County maintains and operates municipal park and recreation facilities which can also be accessed by the County's total population.

Federal

Lakes Kaweah and Success

“Lake Kaweah was formed after the construction of the Terminus Dam on the Kaweah River in 1962. The lake offers many recreational opportunities including fishing, camping, and boating. Lake Kaweah is located 20 miles east of Visalia on Highway 198 and was constructed by the U.S. Army Corps of Engineers for flood control and water conservation purposes. The lake has a maximum capacity to store 143,000 acre-feet of water. There are a total of 80 campsites at the lake's Horse Creek Campground, which contains toilets, showers and a playground. Campfire programs are also available. Aside from camping, boat ramps are provided at the Lemon Hill and Kaweah Recreation Areas. Both Kaweah and Horse Creek provide picnic areas, barbecue grills and piped water. Swimming is allowed in designated areas. In addition, there is a one-mile hiking trail between Slick Rock and Cobble Knoll, which is ideal for bird watching.

Lake Success was formed by construction of the Success Dam on the Tule River in 1961. The lake offers many recreational activities including fishing, boating, waterskiing, and picnicking. The U.S. Army Corps of Engineers (USACOE) constructed this reservoir for both flood control and irrigation purposes. The lake has a capacity of 85,000 acre-feet of water. The lake is located eight miles east of Porterville in the Sierra Nevada foothills area. Recreational opportunities include ranger programs, camping at the Tule campground, which provides 104 sites, boating, fishing, picnic sites, playgrounds and a softball field. Seasonal hunting is also permitted in the 1,400-acre Wildlife Management Area.”⁹⁷

National Parks and National Forests

“Most of the recreational opportunities in the county are located in Sequoia National Forest, Giant Sequoia National Monument, and in Sequoia and Kings Canyon National Parks (SEKI). Although these parks span adjacent counties, they make a significant contribution to the recreational opportunities that Tulare County has to offer.”⁹⁸

Sequoia National Forest

“Sequoia National Forest takes its name from the Giant Sequoia, which is the world's largest tree. There are more than 30 groves of sequoias in the lower slopes of the park. The park includes over 1,500 miles of maintained roads, 1,000 miles of abandoned roads and 850 miles of trails for hikers, off-highway vehicle users and horseback riders. The Pacific Crest Trail connecting Canada and Mexico, crosses a portion of the forest, 78 miles of the total 2,600 miles of the entire trail. It is estimated that 10 to 13 million people visit the forest each year.”⁹⁹

Giant Sequoia National Monument

“The Giant Sequoia National Monument was created in 2000 by President Clinton in an effort to preserve 34 groves of ancient sequoias located in the Sequoia National Forest. The Monument includes a total of 327,769 acres of federal land, and provides various recreational opportunities, including camping, picnicking, fishing, and whitewater rafting. According to the Giant Sequoia National Monument Management Plan EIS, the Monument includes a total of 21 family campgrounds with 502 campsites and seven group campgrounds. In addition, there are approximately 160 miles of system trails, including 12 miles of the Summit National Recreation Trail.”¹⁰⁰

Sequoia and Kings Canyon National Parks (SEKI)

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
<p>“The U.S. Congress created the Kings Canyon National Park in 1940 and Sequoia National Park in 1890. Because they share many miles of common boundaries, they are managed as one park. The extreme large elevation ranges in the parks (from 1,500 to 14,491 feet above sea level), provide for a wide range of vegetative and wildlife habitats. This is witnessed from exploring Mt. Whitney, which rises to an elevation of 14,491 feet, and is the tallest mountain in the contiguous United States. During the summer months, park rangers lead walks through the parks, and tours of Crystal and Boyden Caves. During the winter, visitors explore the higher elevations of the parks via cross country skis or snowshoes, or hike the trails in the foothills. The SEKI also contains visitor lodges, the majority of which are open year round. According to the National Parks Conservation Association, a combined total of approximately 1.5 million people visit the two parks on an annual basis.”¹⁰¹</p> <p>State</p> <p>“The Mountain Home State Forest is a State Forest managed by the California Department of Forestry and Fire Protection (CDF). The Forest consists of 4,807 acres of parkland containing a number of Giant Sequoias, and is located just east of Porterville. The Forest is a Demonstration Forest, which is considered timberland that is managed for forestry education, research, and recreation. Fishing ponds, hiking trails, and campsites are some of the amenities that can be found in the Forest.”¹⁰² Colonel Allensworth State Historic Park (approximately 3,715 acres in area) is located in the unincorporated community of Allensworth in southwestern Tulare County, approximately 3.5 miles southeast of the Project site.</p> <p>Other Recreational Facilities</p> <p>Other recreational resources available in Tulare County include portions of the Pacific Crest Trail, South Sierra Wilderness Area, Dome Land Wilderness Area, Golden Trout Wilderness Area, International Agri-Center, and the Tulare County Fairgrounds.¹⁰³</p> <p>In addition, there are several nature preserves open to the public which are owned and operated by non-profit organizations, including the Kaweah Oaks Preserve and Dry Creek- Homer Ranch preserves, both owned and operated by Sequoia Riverlands Trust</p> <p>Local</p> <p><u>Parks</u></p> <p>As noted earlier, Alpaugh Community Park is the nearest County owned/operated park near the Project site. It is an approximately 3-acre day use park; reservations for picnic areas area available and there is no entrance fee. The next nearest County park is Elk Bayou Park located approximately 20.5 miles northeast (just south of the City of Tulare) of the Project site; it is an approximately 60-acre day use park; reservations for picnic areas area available and there is no entrance fee.</p> <p><u>Schools</u></p> <p>“A total of 48 school districts provide education throughout Tulare County... Of the 48 school districts, seven are unified districts providing educational services for kindergarten through 12th grade. The remaining 41 districts consist of 36 elementary school districts and four high school districts. Many districts only have one school.”¹⁰⁴ The nearest schools, Alpaugh Elementary School, Alpaugh Jr. and Sr. High School, California Connections Academy (a charter school), and Tule Continue High School, are located approximately 1.5 miles north of the proposed Project site in Alpaugh.¹⁰⁵</p>					

⁹⁶ Tulare County General Plan 2030 Update Background Report. February 2010. Page 4-1. Access <http://generalplan.co.tulare.ca.us/documents.html> then scroll to Recirculated Draft EIR, the click on “Appendix B-Background Report”

⁹⁷ Ibid. 4-7

⁹⁸ Op. Cit. 4-8.

⁹⁹ Op. Cit. 4-9.

¹⁰⁰ Op. Cit.

¹⁰¹ Op. Cit.

¹⁰² Op. Cit. 4-7.

¹⁰³ Op. Cit. 4-10 to 4-11.

¹⁰⁴ Tulare County General Plan 2030 Update Background Report. Pages 7-75 and 7-76. <http://generalplan.co.tulare.ca.us/documents.html> then scroll to Recirculated Draft EIR, the click on “Appendix B-Background Report”

¹⁰⁵ Alpaugh Unified School District website accessed at: <https://alpaughusd.com/> in May 2020.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT	
Regulatory Setting						
Federal						
None that apply to this Project.						
State						
None that apply to this Project.						
Local						
None that apply to this Project.						
a) No Impact: As discussed in Item 15 e), the Project will not increase the demand for recreational facilities nor will it put a strain on the existing recreational facilities. No employees will be located at the Project site. Maintenance crews will service the site; however, no population growth will be associated with the Project or necessitated by the Project. The only potential impact on recreational facilities may occur if construction workers (during six-to-nine months of construction), or occasionally visiting maintenance workers, decided to recreate at their own leisure outside of work hours. The nearest park is Alpaugh Community Park approximately 1.8 miles north of the proposed Project site. As such, the Project would not 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. Therefore, there will be no impact to this resource.						
b) No Impact: The Project does not include recreational facilities, As there is no population growth associated with the Project, there will be no need to construct or expand any recreational facilities as there would be no adverse physical effect on the environment; therefore, there would be impact to this resource.						
17.	TRANSPORTATION					
	Would the project:					
	a)	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	b)	Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	c)	Result in a change in air traffic patterns, including either increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

			SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
	d)	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses, (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	e)	Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	f)	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Analysis:

Environmental Setting

The Project site is located in central-western Tulare County, California. Utility easements within private property and along un-maintained County roads would be used to run a new transmission line from the Project site to the PG&E Olive Substation approximately one mile north of the Project site. Un-maintained County roads will also be used to access to the Project site. There is potential for one County right-of-way being used for an underground, medium-voltage (34.5 kV) electrical line within Avenue 42, for which the applicant will obtain an Encroachment Permit and Franchise Agreement. As noted earlier, Mefford Field Airport (in the City of Tulare), is located approximately 21 miles northeast of the site.

The nearest railroad to the proposed Project site is Burlington Northern & Santa Fe Rail Road (BN&SF) spur line approximately 1.25 miles to the north. The BN&SF provides freight service and functions to connect Tulare County with both northern and southern markets.

Regulatory Setting

Federal

Several federal regulations govern transportation issues. They include: Title 49, CFR, Sections 171-177 (49 CFR 171-177) which governs the transportation of hazardous materials, the types of materials defined as hazardous, and the marking of the transportation vehicles; 49 CFR 350-399, and Appendices A-G, Federal Motor Carrier Safety Regulations which address safety considerations for the transport of goods, materials, and substances over public highways; and 49 CFR 397.9, the Hazardous Materials Transportation Act of 1974, which directs the U.S. Department of Transportation to establish criteria and regulations for the safe transportation of hazardous materials.

State

Caltrans: Transportation Concept Reports

Each District of the State of California Transportation Department (Caltrans) prepares a Transportation Concept Report (TCP) for every state highway or portion thereof in its jurisdiction. The TCR usually represents the first step in Caltrans' long-range corridor planning process. The purpose of the TCR is to determine how a highway will be developed and managed so that it delivers the targeted LOS and quality of operations that are feasible to attain over a 20-year period, otherwise known as the "route concept" or beyond 20 years, for what is known as the "ultimate concept". However, the Project site is not adjacent to or near any Concept Report facilities. The nearest facility is SR 43 approximately 3.5 miles east of the Project.

Caltrans Guide for the Preparation of Traffic Impact Studies

"The California Department of Transportation (Caltrans) has developed this "Guide for the Preparation of Traffic Impact Studies" in response to a survey of cities and counties in California. The purpose of that survey was to improve the Caltrans local development review process (also known as the Intergovernmental Review/California Environmental Quality Act or IGR/CEQA process). The survey indicated that approximately 30 percent of the respondents were not aware of what Caltrans required in a traffic impact study

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<p>(TIS).¹⁰⁶ However, the Project site will only have temporary traffic increases during construction-related activities of approximately 153 construction vehicle trips per day¹⁰⁷ and 0.72 trips per day over a typical year when operational¹⁰⁸, a traffic impact study is not required.</p> <p>Local</p> <p><u>Tulare County General Plan 2030 Update</u></p> <p>The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: <i>TC-1.16 County Level Of Service (LOS) Standards</i> wherein the County shall strive to develop and manage its roadway system (both segments and intersections) to meet a LOS of “D” or better in accordance with the LOS definitions established by the Highway Capacity Manual; and <i>HS-1.9 Emergency Access</i> wherein the County shall require, where feasible, road networks (public and private) to provide for safe and ready access for emergency equipment and provide alternate routes for evacuation.</p> <p>a) No Impact: The Project will consist of construction and operation/maintenance of a solar energy generation facility (and construction of a new transmission line to the PG&E Olive substation along private property and un-maintained County roads utility easements. Site grading will take approximately two-to-three weeks. Project construction will require approximately 150-450 trips per day for the six-to-nine months of construction-related activities. Level of Service (LOS) standards vary throughout the County and its eight incorporated cities. As noted earlier in Tulare County General Plan Policy TC-1.16, the minimum LOS standard within the County shall be no lower than LOS D. Project operations and maintenance are anticipated to require approximately 420 total vehicle trips per year, including 260 vehicle trips per year for maintenance and up to 160 trips (eight (8) trips per day) during the 20 total days of panel washing activities per year .and approximately five (5) trips per week to address security or maintenance issues, an estimated average of 0.72 trip per day over a typical year. Except for biannual panel washing activities, emergency repair events, and occasional security checks, the facility would not require any full-time employees located on or traveling to the site. PV panel washing would occur approximately one to two times a year depending on the amount of rainfall in a given year using imported water. Water trucks would be brought on-site twice a year for duration of approximately 10 days (20 days/year total). Construction-related traffic and the 0.72 trips per day associated with the Project operation and maintenance will not impact the local roadways. As such, the Project would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit. Therefore, the Project would result in no impact.</p> <p>b) No Impact: The Project does not require construction of any roadways, and will generate approximately 0.72 trips per day on average for operation and maintenance. As the Project will not generate significant new traffic, and based on existing conditions, there is no anticipated change in the operating conditions of the roadways from what currently exists. As such, the Project would not conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways. Therefore, the Project would result in no impact.</p> <p>c) No Impact: The Project is located approximately 21 miles southwest of Mefford Field Airport, the nearest airport. The construction of a renewable energy facility (i.e., solar generation), and subsequent operations of the facility, will not result in a change in air traffic patterns, including either increase in traffic levels or a change in location that results in substantial safety risks. Therefore, the Project would result in no impact.</p> <p>d) Less Than Significant Impact: No roadway design features are associated with this Project and the change in the existing land use will not result in an incompatible use. As noted earlier, a new transmission line (approximately one mile in length) would be constructed from the Project site in private property and un-maintained County road utility easements north to the PG&E Olive substation; therefore, this and other components of the Project would not substantially increase hazards due to a design</p>					

¹⁰⁶ Caltrans Guide for the preparation of traffic studies. Page ii.

¹⁰⁷ “Project and Operations Description for the proposed Glover Solar Project...” October 2018. Page 7 Prepared by Wood Environment and Infrastructure Solutions, Inc. (included in Attachment “D” of this document). Page 6.

¹⁰⁸ Ibid. 7.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT	
<p>feature (e.g., sharp curves or dangerous intersections) or incompatible uses, (e.g., farm equipment). As such, the Project would result in a less than significant impact to this resource.</p> <p>e) No Impact: No roads will be modified as a result of this Project, construction-related traffic that could impede emergency response will be short-term, temporary, and intermittent and would comply with laws requiring yielding right-of-way to emergency response vehicle. Daily operations and maintenance traffic will be limited to approximately 0.72 trips per day. As such, it can be reasonably concluded that the Project would not result in inadequate emergency access. Therefore, there will be no impact to this resource.</p> <p>f) No Impact: As there are no adopted alternative transportation policies, plans, or programs in the proposed Project area, it is not possible for the Project to conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. Therefore, there will be no impact to this resource.</p>						
18.	TRIBAL CULTURAL RESOURCES					
	Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources 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:					
	a)	Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b)	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 Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<p>Analysis:</p> <p>Environmental Setting</p> <p>“Tulare County lies within a culturally rich province of the San Joaquin Valley. Studies of the prehistory of the area show inhabitants of the San Joaquin Valley maintained fairly dense populations situated along the banks of major waterways, wetlands, and streams. Tulare County was inhabited by aboriginal California Native American groups consisting of the Southern Valley Yokuts, Foothill Yokuts, Monache, and Tubatulabal. Of the main groups inhabiting the Tulare County area, the Southern Valley Yokuts occupied the largest territory.”¹⁰⁹</p> <p><u>Records Search Results</u></p> <p>A search by the Southern San Joaquin Valley Information Center (SSJVIC) of the California Historical Resources Information System (CHRIS) to identify areas previously surveyed and identify known cultural resources present within or in close proximity to the Project Study Area was requested on May 8, 2020 and results were received on May 19, 2020 (see Attachment “C”). One recorded cultural resource was located within the 0.5-mile radius of the Project area (P-54-005100).</p> <p><u>Native American Consultation</u></p>						

¹⁰⁹ Tulare County General Plan 2030 Update. August 2012. Page 8-5. <http://generalplan.co.tulare.ca.us/documents.html>, then scroll to Recirculated Draft EIR, the click on “Appendix B-Background Report”

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<p>The Native American Heritage Commission (NAHC) maintains a contact list of Native American Tribes as having traditional lands located within the County's jurisdiction. A search of the Sacred Lands Inventory on file with the Native American Heritage Commission (NAHC) was also requested and resulted in negative results (i.e., no sacred lands were identified in the Project site) in a letter received from the NAHC on May 8, 2020 (see Attachment "C"). Pursuant to AB 52 Tulare County RMA staff contacted five Native American Tribes (see Attachment "C") by email and certified mail on May 6, 2020. At the time of release of this IS/MND, the County received a response from one Tribe.</p> <p>Regulatory Setting</p> <p><i>Federal</i></p> <p><u>The National Historic Preservation Act</u></p> <p>The National Historic Preservation Act of 1966 (NHPA) established federal regulations for the purpose of protecting significant cultural resources.¹¹⁰ The legislation established the National Register of Historic Places and the National Historic Landmarks Program.¹¹¹ It mandated the establishment of the State Historic Preservation Office (SHPO), responsible for implementing statewide historic preservation programs in each state.¹¹² A key aspect of SHPO responsibilities include surveying, evaluating and nominating significant historic buildings, sites, structures, districts and objects to the National Register. The NHPA also established requirements for federal agencies to consider the effects of proposed federal Projects on historic properties (Section 106, NHPA).¹¹³ Federal agencies and recipients of federal funding are required to initiate consultation with the State Historic Preservation Officer (SHPO) as part of the Section 106 review process.¹¹⁴</p> <p><i>State</i></p> <p><u>California State Office of Historic Preservation (OHP)</u></p> <p>"The California State Office of Historic Preservation (OHP) is responsible for administering federally and state mandated historic preservation programs to further the identification, evaluation, registration and protection of California's irreplaceable archaeological and historical resources under the direction of the State Historic Preservation Officer (SHPO), a gubernatorial appointee, and the State Historical Resources Commission."¹¹⁵</p> <p>"OHP's responsibilities include identifying, evaluating, and registering historic properties; ensuring compliance with federal and state regulatory obligations; encouraging the adoption of economic incentives programs designed to benefit property owners; encouraging economic revitalization by promoting a historic preservation ethic through preservation education and public awareness and, most significantly, by demonstrating leadership and stewardship for historic preservation in California."¹¹⁶</p> <p>A historical resource may be eligible for inclusion in the California Register of Historical Resources (CRHR) if it:</p> <ul style="list-style-type: none"> ➤ Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage; ➤ Is associated with the lives of persons important to our past; ➤ Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or ➤ Has yielded, or may be likely to yield, information important in prehistory or history.¹¹⁷ <p><u>Native American Heritage Commission</u></p>					

¹¹⁰ Advisory Council on Historic Preservation. The National Historic Preservation Program. <http://www.achp.gov/overview.html>

¹¹¹ Ibid.

¹¹² Op. Cit.

¹¹³ Op. Cit.

¹¹⁴ Op. Cit.

¹¹⁵ Office of Historic Preservation. Mission and Responsibilities. http://ohp.parks.ca.gov/?page_id=1066

¹¹⁶ Ibid.

¹¹⁷ Office of Historic Preservation. California Register of Historic Places. http://www.ohp.parks.ca.gov/?page_id=21238

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
<p>“The Native American Heritage Commission (NAHC), created in statute in 1976, is a nine-member body, appointed by the Governor, to identify and catalog cultural resources (i.e., places of special religious or social significance to Native Americans, and known graves and cemeteries of Native Americans on private lands) in California. The Commission is charged with the duty of preserving and ensuring accessibility of sacred sites and burials, the disposition of Native American human remains and burial items, maintain an inventory of Native American sacred sites located on public lands, and review current administrative and statutory protections related to these sacred sites.”¹¹⁸</p> <p><u>Tribal Consultation Requirements: AB 52 (Gatto, 2014)</u></p> <p>The Public Resources Code has established that “[a] project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment.” (Pub. Resources Code, § 21084.2.) To help determine whether a project may have such an effect, the Public Resources Code requires a lead agency to consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project. That consultation must take place prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report for a project. (Pub. Resources Code, § 21080.3.1.) If a lead agency determines that a project may cause a substantial adverse change to tribal cultural resources, the lead agency must consider measures to mitigate that impact.¹¹⁹</p> <p><u>CEQA Guidelines: Archaeological Resources</u></p> <p>Section 15064.5(c) of CEQA Guidelines provides specific guidance on the treatment of archaeological resources as noted below.¹²⁰</p> <ol style="list-style-type: none"> (1) When a Project will impact an archaeological site, a lead agency shall first determine whether the site is an historical resource, as defined in subdivision (a). (2) If a lead agency determines that the archaeological site is an historical resource, it shall refer to the provisions of Section 21084.1 of the Public Resources Code, and this section, Section 15126.4 of the Guidelines, and the limits contained in Section 21083.2 of the Public Resources Code do not apply. (3) If an archaeological site does not meet the criteria defined in subdivision (a), but does meet the definition of a unique archeological resource in Section 21083.2 of the Public Resources Code, the site shall be treated in accordance with the provisions of section 21083.2. The time and cost limitations described in Public Resources Code Section 21083.2 (c–f) do not apply to surveys and site evaluation activities intended to determine whether the Project location contains unique archaeological resources. (4) If an archaeological resource is neither a unique archaeological nor an historical resource, the effects of the Project on those resources shall not be considered a significant effect on the environment. It shall be sufficient that both the resource and the effect on it are noted in the Initial Study or EIR, if one is prepared to address impacts on other resources, but they need not be considered further in the CEQA process. <p><u>CEQA Guidelines: Human Remains</u></p> <p>Public Resources Code Sections 5097.94 and 5097.98 provide guidance on the disposition of Native American burials (human remains), and fall within the jurisdiction of the Native American Heritage Commission:¹²¹</p> <ol style="list-style-type: none"> (d) When an initial study identifies the existence of, or the probable likelihood, of Native American human remains within the Project, a lead agency shall work with the appropriate Native Americans as identified by the Native American Heritage Commission as provided in Public Resources Code Section 5097.98. The applicant may develop an agreement for treating or disposing of, with appropriate dignity, the human remains and any Items associated with Native American burials with the appropriate Native Americans as identified by the Native American Heritage Commission. Action implementing such an agreement is exempt from: 					

¹¹⁸ Native American Heritage Commission. Welcome. <http://nahc.ca.gov/>

¹¹⁹ Office of Planning and Research. Discussion Draft Technical Advisory: AB 52 and Tribal Cultural Resources in CEQA (May 2015). Page 3. http://opr.ca.gov/docs/DRAFT_AB_52_Technical_Advisory.pdf

¹²⁰ California Natural Resources Agency. 15064.5. Determining the Significance of Impacts to Archeological and Historical Resources, Section 15064.5(c). <http://resources.ca.gov/ceqa/guidelines/art5.html>

¹²¹ Ibid.

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
	<p>(1) The general prohibition on disinterring, disturbing, or removing human remains from any location other than a dedicated cemetery (Health and Safety Code Section 7050.5).</p> <p>(2) The requirements of CEQA and the Coastal Act.</p> <p>(e) In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps should be taken:</p> <p>(1) There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:</p> <p>(A) The coroner of the county in which the remains are discovered must be contacted to determine that no investigation of the cause of death is required, and</p> <p>(B) If the coroner determines the remains to be Native American:</p> <ol style="list-style-type: none"> 1. The coroner shall contact the Native American Heritage Commission within 24 hours. 2. The Native American Heritage Commission shall identify the person or persons it believes to be the most likely descended from the deceased Native American. 3. The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98, or <p>(2) Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.</p> <p>(A) The Native American Heritage Commission is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission.</p> <p>(B) The descendant identified fails to make a recommendation; or</p> <p>(C) The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the Native American Heritage Commission fails to provide measures acceptable to the landowner.</p> <p>(f) As part of the objectives, criteria, and procedures required by Section 21082 of the Public Resources Code, a lead agency should make provisions for historical or unique archaeological resources accidentally discovered during construction. These provisions should include an immediate evaluation of the find by a qualified archaeologist. If the find is determined to be an historical or unique archaeological resource, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or appropriate mitigation should be available. Work could continue on other parts of the building site while historical or unique archaeological resource mitigation takes place</p>				
	<p>Local</p> <p><u>Tulare County General Plan 2030 Update</u></p> <p>The General Plan has a number of policies that apply to Projects within Tulare County. General Plan policies that relate to the proposed Project are listed as follows:</p> <p>The following Tulare County General Plan 2030 Update policies for this resource apply to this Project: <i>ERM-6.1 Evaluation of Cultural and Archaeological Resources</i> wherein the County shall participate in and support efforts to identify its significant cultural and archaeological resources using appropriate State and Federal standards; <i>ERM-6.2 Protection of Resources with Potential State or Federal Designations</i> wherein the County shall protect cultural and archaeological sites with demonstrated potential for placement on the National Register of Historic Places and/or inclusion in the California State Office of Historic Preservation's California Points of Interest and California Inventory of Historic Resources; <i>ERM-6.3 Alteration of Sites with Identified Cultural Resources</i> which states that when planning any development or alteration of a site with identified cultural or archaeological resources, consideration should be given to ways of protecting the resources. Development can be permitted in these areas only after a site specific investigation has been conducted pursuant to CEQA to define the extent and value of resource, and Mitigation Measures proposed for any impacts the development may have on the resource; <i>ERM-6.4 Mitigation</i> which states that if preservation of cultural resources is not feasible, every effort shall be made to mitigate impacts, including relocation of structures, adaptive reuse, preservation of facades, and thorough documentation and archival of records; <i>ERM-6.9 Confidentiality of Archaeological Sites</i> wherein the County shall, within its power, maintain confidentiality regarding the locations of archaeological sites in order to preserve and protect these resources from vandalism and the unauthorized removal of artifacts; and <i>ERM-6.10 Grading Cultural Resources Sites</i> wherein the County shall ensure all grading activities conform to the County's Grading Ordinance and California Code of Regulations, Title 20, § 2501 et. seq.</p>				

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
<p>As noted earlier, the Project consists of a solar array on an approximately 277-acre site that is actively farmed and grazed and also a new transmission line along private property and un-maintained County roads utility easements that will connect the Project to the PG&E Olive substation approximately one mile north of the Project site. The intensive use of the Project site and the path of the transmission live have continually been disturbed to the point that there are no evident surface Tribal cultural resources. However, as discussed below, mitigation measures are included in the unlikely event that Tribal cultural resources are encountered.</p> <p>a) and b) Less Than Significant Impact With Mitigation: As noted earlier, a search of records by the Southern San Joaquin Valley Information Center of the California Historical Resources Information System identified one recorded resource (P-54-005100) within the 0.5-mile radius. The Native American Heritage Commission (NAHC) conducted a search of the Sacred Lands Inventory on file with the Native American Heritage Commission (NAHC) which concluded negative results (i.e., no sacred lands were identified in the Project site). Lastly, 13 representative from five (5) Native American Tribes were notified consistent with AB 52 requirements; one (1) response was received. In the event that subsurface resources are located, Mitigation Measures TCR-1 through TCR-4 would be implemented thereby reducing the potential level of impact to this resource as less than significant for resources listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k); or to a resource consider significant to a California Native American tribe. Therefore, the Project would result in a less than significant impact to this resource.</p> <p>Mitigation Measure TCR-1: (Tribal Monitoring) Prior to any ground disturbance, a surface inspection of the site shall be conducted by a Tribal Monitor. The Tribal Cultural Staff shall monitor the site during grading activities. The Tribal Cultural Staff shall provide pre-construction briefings to supervisory personnel and any excavation contractor, which will include information on potential cultural material finds and on the procedures to be enacted if resources are found. Prior to any ground disturbance, the applicant shall offer the Santa Rosa Rancheria Tachi Yokut Tribe the opportunity to provide a Native American Monitor during ground disturbing activities during both construction and decommissioning. Tribal participation would be dependent upon the availability and interest of the Tribe.</p> <p>Mitigation Measure TCR-2: (Stop Work) In the event that cultural resources, paleontological resource, or unique geological features are discovered during construction or decommissioning. Operations shall stop within 100 feet of the find, and a qualified archeologist shall determine whether the resource requires further study. The qualified archaeologist shall determine the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with §15064.5 of the CEQA Guidelines. Mitigation measures may include avoidance, preservation in-place, recordation, additional archaeological testing, and data recovery, among other options. Any previously undiscovered resources found during construction within the Project area shall be recorded on appropriate Department of Parks and Recreation forms and evaluated for significance. No further ground disturbance shall occur in the immediate vicinity of the discovery until approved by the qualified archaeologist. Tulare County Resource Management Agency along with other relevant or Tribal officials, shall be contacted upon the discovery of cultural resources to begin coordination on the disposition of the find(s). Treatment of any significant cultural resources shall be undertaken with the approval of the Tulare County Resource Management Agency.</p> <p>Mitigation Measure TCR-3: (Disposition of Cultural Resources) Upon coordination with Tulare County Resource Management Agency, any archaeological artifacts recovered shall be donated to an appropriate Tribal custodian or a qualified scientific institution where they would be afforded applicable cultural resources laws and guidelines.</p> <p>Mitigation Measure TCR-4: (Treatment of Human Remains) The applicant shall follow current legal requirements at the time of discovery for the treatment of human remains. Currently, pursuant to Section 5097.98 of the California Public Resources Code (PRC) and Section 7050.5 of the California State Health and Safety Code (HSC) Section and PRC Section 5097.98, if human remains or bone remains of unknown origin are found at any time during on-or off-site construction, all work shall stop in the vicinity of the find, and the Tulare County Coroner shall be contacted immediately. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission (NAHC), who shall identify the person believed to be the Most Likely Descendant (MLD), who shall have at least 48 hours from notification of the find to comment.</p> <p>The Landowner and MLD, shall make all reasonable efforts to develop an agreement for the treatment of human remains and associated or unassociated funerary objects with appropriate dignity (CEQA Guidelines Sec. 15064.5(d)). The agreed</p>					

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT	
<p>upon treatment shall include appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects. If the MLD and the other parties do not agree on the reburial method, the Project shall follow PRC Section 5097.98(e) which states that "... the landowner or his or her authorized representative shall reinter the human remains and items associated with Native American burials with appropriate dignity on the property in a location not subject to further subsurface disturbance."</p> <p>Any findings shall be submitted by the archaeologist in a professional report submitted to the project applicant, the MLD, Tulare County Resource Management Agency, and the California Historical Resources Information System, Southern San Joaquin Valley Information Center.</p> <p>The Archaeologist may assist the Tribe, if requested, but the archaeologist has no jurisdiction over human remains, and is subject to the same fines as anyone else.</p> <p>Therefore, implementation of Mitigation Measures TCR-1 through TCR-4 would result in a less than significant impact to Tribal Cultural Resources.</p>						
19.	UTILITIES AND SERVICE SYSTEMS					
	Would the project:					
	a)	Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water 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 which 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 checked="" type="checkbox"/>	<input type="checkbox"/>
<p>Analysis:</p> <p>Environmental Setting</p> <p>"Tulare County and special districts provide many important services to County residents and businesses in unincorporated communities and hamlets such as water, wastewater, storm drainage, solid waste removal, utilities, communications, fire protection, law enforcement, and a number of other community facilities and services (schools, community centers, etc.)."¹²²</p>						

¹²² Tulare County General Plan Update 2030. Page 14-3.

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<p>“Water districts supply water to communities and hamlets throughout the County. Most communities and some hamlets have wastewater treatment systems; however, several communities including Three Rivers, Plainview, Alpaugh, and Ducor rely on individual septic systems. Storm drainage facilities are generally constructed and maintained in conjunction with transportation improvements or new subdivisions in communities. Solid waste collection in the County is divided into service areas, as determined by the Board of Supervisors, with one license for each area. Southern California Edison provides electric service to the south and central areas of Tulare County while PG&E provides electric service in the north. The [Southern California] Gas Company is the primary provider of natural gas throughout the County.”¹²³</p> <p>Regulatory Setting</p> <p>Federal</p> <p><u>U.S. Environmental Protection Agency (U.S. EPA) - Federal Regulation Title 40, Part 503</u></p> <p>In 1993, the U.S. Environmental Protection Agency (U.S. EPA) promulgated Standards for the Use or Disposal of Sewage Sludge (Code of Federal Regulations Title 40, Part 503), which establish pollutant limitations, operational standards for pathogen and vector attraction reduction, management practices, and other provisions intended to protect public health and the environment from any reasonably anticipated adverse conditions from potential waste constituents and pathogenic organisms.</p> <p>This part establishes standards, which consist of general requirements, pollutant limits, management practices, and operational standards, for the final use or disposal of sewage sludge generated during the treatment of domestic sewage in a treatment works. Standards are included in this part for sewage sludge applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator. Also included in this part are pathogen and alternative vector attraction reduction requirements for sewage sludge applied to the land or placed on a surface disposal site.</p> <p>In addition, the standards in this part include the frequency of monitoring and recordkeeping requirements when sewage sludge is applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator. Also included in this part are reporting requirements for Class I sludge management facilities, publicly owned treatment works (POTWs) with a design flow rate equal to or greater than one million gallons per day, and POTWs that serve 10,000 people or more.¹²⁴</p> <p><u>Resource Conservation and Recovery Act (RCRA)</u>¹²⁵</p> <p>Congress passed RCRA on October 21, 1976 to address the increasing problems the nation faced from our growing volume of municipal and industrial waste. RCRA, which amended the Solid Waste Disposal Act of 1965, set national goals for:</p> <ul style="list-style-type: none"> • Protecting human health and the environment from the potential hazards of waste disposal. • Conserving energy and natural resources. • Reducing the amount of waste generated. • Ensuring that wastes are managed in an environmentally-sound manner • To achieve these goals, RCRA established three distinct, yet interrelated, programs: <ul style="list-style-type: none"> ✓ The solid waste program, under RCRA Subtitle D, encourages states to develop comprehensive plans to manage nonhazardous industrial solid waste and municipal solid waste, sets criteria for municipal solid waste landfills and other solid waste disposal facilities, and prohibits the open dumping of solid waste. ✓ The hazardous waste program, under RCRA Subtitle C, establishes a system for controlling hazardous waste from the time it is generated until its ultimate disposal — in effect, from “cradle to grave.” ✓ The underground storage tank (UST) program, under RCRA Subtitle I, regulates underground storage tanks containing hazardous substances and petroleum products. RCRA banned all open dumping of waste, encouraged source reduction and recycling, and promoted the safe disposal of municipal waste. RCRA also mandated strict controls over the treatment, storage, and disposal of hazardous waste. 					

¹²³ Ibid. 14-3.

¹²⁴ Title 40: Protection of Environment Part 503: Standards for the Use of Disposal of Sewage Sludge, <http://www.ecfr.gov/cgi-bin/text-idx?SID=faac2040ebd49d57cc2786437545c8cf&node=40:30.0.1.2.42.1.13.1&rgn=div8>

¹²⁵ United States Environmental Protection Agency. Accessed at: <http://www.epa.gov/epawaste/laws-regs/rcrahistory.htm>

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<p><i>State</i></p> <p><u>The Integrated Waste Management Act (Assembly Bill 939)</u></p> <p>In 1989 the California legislature passed the Integrated Waste Management Act of 1989, known as AB 939. The bill mandates a reduction of waste being disposed: jurisdictions were required to meet diversion goals of 25% by 1995 and 50% by the year 2000. AB 939 also established an integrated framework for program implementation, solid waste planning, and solid waste facility and landfill compliance.</p> <p><u>The Regional Water Quality Control Board – Biosolids</u></p> <p>In California, the beneficial reuse of treated municipal sewage sludge (<i>a.k.a.</i>, biosolids) generally must comply with the California Water Code in addition to meeting the requirements specified in Part 503 in Title 40 of the Code of Federal Regulations.</p> <p>In July 2004, the State Water Resources Control Board adopted Water Quality Order No. 2004-12-DWQ (General Order), and certified a supporting statewide Programmatic Environmental Impact Report (PEIR)</p> <p>The General Order incorporates the minimum standards established by the Part 503 Rule and expands upon them to fulfill obligations to the California Water Code. However, since California does not have delegated authority to implement the Part 503 Rule, the General Order does not replace the Part 503 Rule. The General Order also does not preempt or supersede the authority of local agencies to prohibit, restrict, or control the use of biosolids subject to their jurisdiction, as allowed by law.</p> <p>Persons interested in seeking coverage under the General Order should contact the appropriate Regional Water Quality Control Board. Only applicants who submit a complete <i>Notice of Intent</i> (NOI), appropriate application fee, and are issued a Notice of Applicability by the executive officer of the appropriate Regional Water Quality Control Board are authorized to land apply biosolids at an agricultural, horticultural, silvicultural, or land reclamation site as a soil amendment under the General Order.</p> <p><u>State Water Resources Control Board, Divisions of Drinking Water and Clean Water</u></p> <p>Recycled water regulations are administered by both Central RWQCB and the California State Water Resources Control Board (SWRCB). The regulations governing recycled water are found in a combination of sources, including the Health and Safety Code, Water Code, and Titles 22 and 17 of the California Code of Regulations (CCR). Issues related to the treatment and distribution of recycled water are generally under the permitting authority of RWQCB and the Clean Water Division of the SWRCB. .</p> <p><u>CalRecycle</u></p> <p>CalRecycle (formerly the California Integrated Waste Management Board) governs solid waste regulations on the state level, delegating local permitting, enforcement, and inspection responsibilities to Local Enforcement Agencies (LEA). Regulations authored by CalRecycle (Title 14) were integrated with related regulations adopted by the State Water Resources Control Board (SWRCB) pertaining to landfills (Title 23, Chapter 15) to form CCR Title 27.</p> <p><u>California Public Utilities Commission</u></p> <p>The California Public Utilities Commission (CPUC) regulates privately owned electric, natural gas, telecommunications, water, railroad, rail transit, and passenger transportation companies, in addition to authorizing video franchises. In 1911, the CPUC was established by Constitutional Amendment as the Railroad Commission. In 1912, the Legislature passed the Public Utilities Act, expanding the Commission's regulatory authority to include natural gas, electric, telephone, and water companies as well as railroads and marine transportation companies. In 1946, the Commission was renamed the California Public Utilities Commission. It is tasked with ensuring safe, reliable utility service is available to consumers, setting retail energy rates, and protecting against fraud.</p> <p><i>Local</i></p> <p><u>Tulare County General Plan 2030 Update</u></p>					

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<p>As the Project will not utilize any new or expanded water, wastewater treatment or storm water drainage, natural gas, or telecommunications facilities, the applicable Tulare County General Plan 2030 Update policies for this resource are limited to the following for this resource item: <i>PFS-5.3 Solid Waste Reduction</i> wherein the County shall promote the maximum feasible use of solid waste reduction, recycling, and composting of waste, strive to reduce commercial and industrial waste on an annual basis, and pursue financing mechanisms for solid waste reduction programs; <i>PFS-5.4 County Usage of Recycled Materials and Products</i> wherein the County shall encourage all industries and government agencies in the County to use recycled materials and products where economically feasible; <i>PFS-5.5 Private Use of Recycled Products</i> wherein the County shall work with recycling contractors to encourage businesses to use recycled products and encourage consumers to purchase recycled products; <i>PFS-5.6 Ensure Capacity</i> wherein the County shall require evidence that there is adequate capacity within the solid waste system for the processing, recycling, transmission, and disposal of solid waste prior to approving new development; <i>PFS-5.7 Provisions for Solid Waste Storage, Handling, and Collection</i> wherein the County shall ensure all new development adequately provides for solid waste storage, screening, handling, and collection prior to issuing building permits; <i>PFS-5.8 Hazardous Waste Disposal Capabilities</i> wherein the County shall require the proper disposal and recycling of hazardous materials in accordance with the County's Hazardous Waste Management Plan; <i>PFS-9.1 Expansion of Gas and Electricity Facilities</i> wherein the County shall coordinate with gas and electricity service providers to plan the expansion of gas and electrical facilities to meet the future needs of County residents; <i>PFS-9.2 Appropriate Siting of Natural Gas and Electric Systems</i> wherein the County shall coordinate with natural gas and electricity service providers to locate and design gas and electric systems that minimize impacts to existing and future residents; <i>PFS-9.4 Power Transmission Lines</i> wherein the County shall work with the Public Utilities Commission and power utilities in the siting of transmission lines to avoid interfering with scenic views, historic resources, and areas designated for future urban development; and <i>PFS-9.3 Transmission Corridors</i> wherein the County shall work with the Public Utilities Commission and power utilities so that transmission corridors meet the following minimum requirements:</p> <ol style="list-style-type: none"> 1. Transmission corridors shall be located to avoid health impacts on residential lands and sensitive receptors, and 2. Transmission corridors shall not impact the economic use of adjacent properties. <p>a) – c) No Impact: The proposed Project involves the leasing of property for the construction and operation/operation of a solar energy generation facility, which will not include any facilities that will generate wastewater. Another component of the Project is construction of a new transmission line to the PG&E Olive substation along private property and un-maintained County road utility easements. There will be no restroom facilities nor will it require a sewer hookup. The Project does not require or would result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. Further, the Project would not result in a determination by the wastewater treatment provider which 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. The Project would use less water than the amount of water used to irrigate the current agricultural use; as such, the Project would have sufficient water supplies available to serve the project during normal, dry and multiple dry years as water would be imported for washing the solar panels approximately twice per year; and the usage of water to minimize dust during construction-related activities would be short-term, intermittent, and temporary. Other than the renewable energy Project, there is no anticipated foreseeable future development other than the reclamation of the Project site as agricultural land following termination of the 35-year project life. As such, there will be no impact to these resources.</p> <p>d) and e) Less Than Significant Impact: As such, the Project would not 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 and it will comply with federal, state, and local management and reduction statutes and regulations related to solid waste as applicable.</p>					

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20.	WILDFIRES					
	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	b)	Due to slope, prevailing winds, and other factors, exacerbate wildfire 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"/>
<p>Analysis:</p> <p>Environmental Setting</p> <p>The proposed Project site is surrounded by agricultural-related land uses such as row crops, grazing land and scattered rural residences adjacent to the Project site. The new transmission line would be adjacent to row crops on both sides. As noted earlier, the proposed Project site lies approximately 21 miles northeast of the City of Tulare and approximately 1.5 miles south of the unincorporated community of Woodville. The proposed Project site is zoned as Exclusive Agriculture – 80. No forest or timber land is present at the proposed Project site or in the proposed Project vicinity. Overall, the Project is located in a rural location and is relatively isolated from either an urban or a rural community. The nature of the Project, a renewable energy facility (i.e., solar panel array and typical components such as inverter stations, various wiring, underground cables, combiner boxes, inverters, transformers, access/egress roads, interior roads, etc.), is located on nine adjacent parcels that does not require a division of land; as such, the parcels will remain in their current dimensions/acreages during its anticipated 35-year life span. Also, following its proposed life of 35 years, the site would be decommissioned and reclaimed as required by the County.</p> <p>Regulatory Setting</p> <p>Federal</p> <p>None that apply to the Project.</p> <p>State</p> <p>None that apply to the Project.</p> <p>Local</p> <p>The Project is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project: The following Tulare County General Plan 2030 Update policies could apply to this Project if it were located on sloped areas, fire hazards areas, lands susceptible to landslides, subsidence/settlement, contamination, and/or flooding; potential for wildland fires; etc.: <i>ERM-7.3 Protection of Soils on Slopes</i> wherein unless otherwise provided for in this General Plan, building and</p>						

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<p>road construction on slopes of more than 30 percent shall be prohibited, and development proposals on slopes of 15 percent or more shall be accompanied by plans for control or prevention of erosion, alteration of surface water runoff, soil slippage, and wildfire occurrence; <i>HS-1.5 Hazard Awareness and Public Education</i> wherein the County shall continue to promote awareness and education among residents regarding possible natural hazards, including soil conditions, earthquakes, flooding, fire hazards, and emergency procedures; <i>HS-1.11 Site Investigations</i> wherein the County shall conduct site investigations in areas planned for new development to determine susceptibility to landslides, subsidence/settlement, contamination, and/or flooding; <i>HS-6.1 New Building Fire Hazards</i> wherein the County shall ensure that all building permits in urban areas, as well as areas with potential for wildland fires, are reviewed by the County Fire Chief; <i>HS-6.2 Development in Fire Hazard Zones</i> wherein the County shall ensure that development in extreme or high fire hazard areas is designed and constructed in a manner that minimizes the risk from fire hazards and meets all applicable State and County fire standards; <i>HS-6.3 Consultation with Fire Service Districts</i> wherein the County shall consult the appropriate fire service district in areas identified as subject to high and extreme fire hazard, for particular regulations or design requirements prior to issuance of a building permit or approval of subdivisions; <i>HS-6.5 Fire Risk Recommendations</i> wherein the County shall encourage the County Fire Chief to make recommendations to property owners regarding hazards associated with the use of materials, types of structures, location of structures and subdivisions, road widths, location of fire hydrants, water supply, and other important considerations regarding fire hazard that may be technically feasible but not included in present ordinances or policies; <i>HS-6.6 Wildland Fire Management Plans</i> wherein the County shall require the development of wildland fire management plans for projects adjoining significant areas of open space that may have high fuel loads; <i>HS-6.13 Restoration of Disturbed Land</i> wherein the County shall support the restoration of disturbed lands resulting from wildfires; <i>HS-6.14 Coordination with Cities</i> wherein the County shall coordinate with cities to develop cohesive fire safety plans with overlapping coverage; and <i>HS-6.15 Coordination of Fuel Hazards on Public Lands</i> wherein the County shall work with local and Federal agencies to support efforts to reduce fuel related hazards on public lands.</p> <p>a) – d) No Impact: The Project site is not in the State Responsibility Area. The Project does not impair the implementation of any adopted emergency response plan or evacuation plan. The proposed Project would allow a renewable energy facility (solar generation) on a 277-acre Project area in the AE-80 (Exclusive Agriculture–80 acre minimum) Zone and construction of a new transmission line to the PG&E Olive substation along private property and un-maintained County road utility easements. The proposed Project does not propose any other new developments or any changes to the existing surrounding land uses. According to the State Responsibility Area (SRA) Viewer, the proposed Project site is not located in the SRA¹²⁶. The Project does not impair the implementation of any adopted emergency response plan or evacuation plan. The Project will not exacerbate wildfire risks or expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire, due to slope, prevailing winds, and other factors. The Project will not require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. The Project will include development of a new one-mile transmission line from the Project site to the PG&E substation along private property and un-maintained County road utility easements. The Project will not 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. Therefore, the proposed Project will result in no impact related to this resource. As it is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones high fire, the Project will not exacerbate wildfire risks or expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire, due to slope, prevailing winds, and other factors. The Project will not 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. The Project will not 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. The facility shall comply with all applicable 2016 California Building Code and CFC standards (such as lighting, fire extinguishers, access/egress, etc.). The applicant shall install a Knox Box (key box) as required by the Tulare County Fire Department. Conditions of approval are included. All new construction would require the submittal of plans for fire department review, and would be required to meet construction methods in accordance with Chapter 7A of the 2016 California Building Code. Therefore, there will be no impact to the Wildfires resource.</p>					

¹²⁶ CalFire, <http://www.fire.ca.gov/firepreventionfee/srviewer>, accessed March 2019.

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21.	MANDATORY FINDINGS OF SIGNIFICANCE				
	a)	Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal species, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" 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 checked="" type="checkbox"/>
	c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Analysis:

The analysis conducted in this Initial Study/Mitigated Negative Declaration results in a determination that the Project will have a less than significant effect on the local environment. The Project includes developing an approximately 277-acre site into a solar energy generation facility and construction of a new transmission line to the PG&E Olive substation via utility easements within private property and along un-maintained County roads.

a) Less Than Significant Impact With Mitigation: The potential for impacts to cultural resources (including tribal cultural resources) from the construction, operation, and decommissioning of the proposed Project will be less than significant with the incorporation of the Mitigation Measures **CUL-1** through **CUL -3** as contained in Item 5 Cultural Resources and Mitigation Measures TCR-1 through TCR-4 as contained in Item 18 Tribal Cultural Resources. The analysis contained in Item 4 Biological Resources concludes that this resource has the potential to be impacted and has included Mitigation Measures **BIO-1** through **BIO-15**. Accordingly, the proposed Project will involve no potential for significant impacts due to degradation of the quality of the environment, substantial reductions in the habitat of a fish or wildlife species, causing a fish or wildlife population to drop below self-sustaining levels, threatening to eliminate a plant or animal community, reduction in the number or restriction of the range of a rare or endangered plant or animal or elimination of important examples of the major periods of California history or prehistory. As such, the impact will be less than significant with mitigation for biological resources and less than significant with mitigation for cultural and tribal cultural resources.

b) Less Than Significant Impact: Projects considered in a cumulative analysis include those that would be constructed concurrently with the Project and those that would be in operation at the same time as the Project. The cumulative projects considered in this analysis are limited to projects that would result in similar impacts to the Project due to their potential to collectively contribute to significant cumulative impacts, as well as other development projects that would be located in the vicinity of the Project. There are no similar projects under consideration or construction located in and around a 10-mile radius of the Project site. The nearest approved solar facility is located immediately adjacent to, and north of, the eastern part of the Project and is also located within and surrounded by agriculturally productive lands. As such, these projects are compatible and consistent with Tulare County Board of Supervisors Resolutions as discussed in Item 3 Agriculture (where it is noted that the

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<p>Tulare County Board of Supervisors defined allowable uses on contracted lands in Resolution No. 89-1275, which established Uniform Rules for Agricultural Use. Resolutions No. 89-1275 and No. 99-0620 established the construction of gas, electric, water, and community utility facilities as compatible uses for lands under a Williamson Act Contract. Public and private utility structures were determined to be a compatible use on lands under Williamson Act Contract with Resolution No 2010-0717. Under Resolution No. 2010-0590, the Tulare County Board of Supervisors determined that solar generating facilities are a compatible use in Exclusive Agriculture Zone Districts subject to conditions of approval set forth in Special Use Permits). Despite their proximity to each other, as discussed in Item 6 Energy, both projects complement one another as both are contributing to the goals of the Clean Energy and Pollution Reduction Act (SB 350) which establishes new clean energy, clean air, and greenhouse gas reduction goals for the year 2030 and beyond; SB 350 establishes a greenhouse gas reduction target of 40 percent below 1990 levels for the State of California, further enhancing the ability for the state to meet the goal of reducing greenhouse gas emissions by 80 percent below 1990 levels by the year 2050; and Tulare County General Policies ERM-4.1 Energy Conservation and Efficiency Measures, ERM-4.3 Local and State Programs and; ERM-4.3 Local and State Renewable Portfolio Standard (SB 1078 and SB 107). Further, as discussed in Items 2 Air Quality and 7 Greenhouse Gases, both of these and other renewable energy projects are quantifiably reducing emissions which would otherwise contribute to adverse impacts to these resources. As such, this Project would provide a benefit to the environment and it would not contribute to an adverse cumulative impact.</p> <p>Tulare County staff have determined that there are no projects that could have the potential to contribute to cumulative impacts. The Project was determined to have no impacts to Energy, Land Use and Planning, Mineral Resources, Population and Housing, Recreation and Wildfire. Therefore, the Project will not result in considerable impacts in combination with the other similar renewable energy projects (solar energy projects). The following environmental impacts were determined to be less than significant and did not require mitigation: Aesthetics, Agricultural Resources, Geology and Soils, Greenhouse Gases, Hazards and Hazardous Materials, Hydrology and Water Quality, Public Services, Transportation, and Utilities and Service Systems. As discussed earlier, the Project will result in less than significant impacts to Air Quality, Biological Resources, Cultural Resources (including Tribal Cultural Resources) and Noise with incorporation/implementation of mitigation measures identified earlier.</p> <p>The majority of the potential impacts resulting from the Project will be short term, temporary, and intermittent occurring during Project construction-related activities; and with negligible impacts resulting from Project operation as discussed in the earlier environmental analysis. Because construction-related impacts are of a short duration, temporary, intermittent, and localized, they would have to occur concurrently and in proximity of other projects in order to have a cumulative impact. Construction-related impacts (which are primarily associated with air quality, biological resources, noise, and traffic) are not likely to act cumulatively with any other projects in a manner that would result in significant impacts.</p> <p>This Project (as described in Items 3 and 8) will have short-term impacts with regard to air quality and greenhouse gases during construction-related activities. However, the emissions associated with this Project are minor as compared to baseline emissions levels as quantified in Items 3 and 8, and are not considered cumulatively considerable pursuant to guidelines from the Air District. (See Impact 3(c) for a complete discussion of the Project's cumulative air quality impacts.) The proposed Project would implement the applicable SJVAPCD Best Performance Standards; therefore, reducing the Project specific and cumulative impacts to a less than significant level. In addition, the Project would lead to cumulatively beneficial reductions in GHG emissions.</p> <p>As discussed in Item 4, the Project site consists of disturbed agricultural land. Operation of the Project would not result in the loss of sensitive biological habitats or sensitive cultural resources as seen in Attachments "B" and "C". As such, when combined cumulatively with other projects, the Project would not result in impacts to biological or cultural resources that are cumulatively considerable.</p> <p>Impacts to aesthetics from the proposed Project would be minimal. As noted earlier, the general vicinity of the Project's location consists of a regional viewshed that already includes agriculturally productive and grazing lands, agricultural-related structures (e.g., barns, equipment sheds, wells, etc.), scattered rural residences, an electrical substation, rural streets, and seasonally used irrigation ditches. Areas of the related projects are not identified as having sensitive or significant visual resources. However, most of the projects would not be visible in the same viewshed. Further, while the solar projects may change the visual character of the area, in general they do not obstruct scenic vistas. Although the Project may contribute to visual impacts on the area due to the addition of more solar facility uses in an agricultural area, the contribution of the Project would not be cumulatively</p>					

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	<p>considerable because the visual quality of the overall area is low and other currently operational solar facilities are scattered throughout the County. Thus, the proposed Project plus the related solar projects would result in less than significant cumulative impact to Aesthetics.</p> <p>No archaeological or historic resources were located on the Project site. With implementation of the cultural resource mitigation measures called for in Items 5 Cultural Resources and 18 Tribal Cultural Resources, the Project would not cause cumulatively considerable cultural resource impacts because impacts to unknown cultural resources would be minimized.</p> <p>The Project also will not cause cumulatively considerable geology and soils impacts, as Project-specific impacts will be less than significant and will not be anticipated to combine with impacts caused by the cumulative projects identified by the County.</p> <p>The Project will not cause cumulatively considerable impacts related to hazards and hazardous materials. While small amounts of hazardous materials may be used or transported as a result of the Project, these activities will occur in compliance with applicable laws and regulations, and any impacts resulting from use, transport, disposal, or accident or upset conditions will be localized in nature. As a result, any Project-level impacts will not have the potential to contribute to hazards associated with other projects because these impacts would only occur intermittently, if at all. Similarly, the Project will not contribute to cumulative wildland fire-related impacts because it is located in an area with low wildland fire risk,</p> <p>The Project will not cause cumulatively considerable hydrology and water quality-related impacts. The Project applicant will be required to implement a SWPPP to reduce impacts and will not cause discharge to any surface or groundwater sources or alter the course of any stream or river. Nor will the Project change runoff patterns in the area.</p> <p>The Project will not cause cumulatively considerable land use and planning impacts. The Project is consistent with all applicable land use planning policies, and will be required to implement a reclamation plan at the end of the Project's life. The reclamation plan will ensure that the Project does not result in effects on neighboring land uses. As a result, the Project's impacts will not be cumulatively significant.</p> <p>The Project also will not combine noise-related impacts with that of other projects to cause cumulatively considerable impacts. Construction-related activities will cause short-term, temporary, and intermittent increases in noise in the area, and could occur at the same time as other noise-causing events in the area. However, no other concurrent construction project are anticipated to occur adjacent to or near the Project site, and operational noise will be minimal. As a result, the Project is not anticipated to considerably contribute to cumulative noise impacts during construction or operation.</p> <p>Because the Project will not cause population growth in the area, it will not lead to construction of new or expanded police or fire protection facilities, or interfere with operation of existing facilities, or create the need for new recreation facilities. The Project will also be designed to minimize fire hazard, and existing emergency response in the area is adequate. Cumulative projects in the area are similarly situated, in that they will not lead to the need for new or expanded police or fire protection facilities or recreation facilities or cause substantial fire hazards. As a result, the Project will not cause cumulatively considerable public services or recreation impacts.</p> <p>Finally, the Project will not cause cumulatively considerable traffic, transportation, or utilities-related impacts. The Project's trip generation projections during both construction and operation are low and will not cause substantial increases in traffic on surrounding roads. In addition, Project construction is not anticipated to overlap with other construction projects in a way that will cause combining of traffic impacts. Because the Project and cumulative projects would cause very little runoff and a minimal amount of waste, the Project will not cause cumulatively considerable utilities-related impacts.</p> <p>Each of the cumulative projects considered in this section would be required to comply with project-specific mitigation measures and/or conditions of approval, as well as applicable General Plans, zoning ordinances, laws and policies. The implementation of the identified Project-specific mitigation measures and compliance with applicable codes, compliance with the Tulare County General Plan, identified Best Management Practices, ordinances, laws and other required regulations will reduce the magnitude of any contribution to cumulative impacts to a less than significant level.</p> <p>On November 17, 2008, Governor Arnold Schwarzenegger signed Executive Order S-14-08, requiring that California utilities reach the 33 percent renewable goal by 2020; subsequently, in 2011 the Legislature enacted SB X1-2, codifying this goal. In</p>				

		SIGNIFICANT IMPACT	LESS THAN SIGNIFICANT IMPACT WITH MITIGATION	LESS THAN SIGNIFICANT IMPACT	NO IMPACT
	<p>the last several months, a series of similarly sized solar generation projects have been approved or are being considered in Tulare County as well as neighboring counties. As of the date of this document, six such projects have been approved by Tulare County, four in Kings County. The cumulative benefit to the environment of reduced reliance on fossil fuels is consistent with the goals of the State Executive Order.</p>				
c)	<p>Less Than Significant Impact With Mitigation: The proposed Project will not result in substantial adverse effect on human beings, either directly or indirectly. Mitigation measures are provided to reduce the Project's potential effects on Air Quality, Biological Resources, Cultural Resources, Noise, and Tribal Cultural Resources to less than significant (see AQ-1, BIO-1 through BIO-15, CUL-1 through CUL-3, NOI-1 through NOI-5, and TCR-1 through TCR-4). No additional mitigation measures will be required. The reduction of approximately 81,205 metric tons of GHG emissions provided by the Project's renewable energy (solar) would result in a benefit to the environment, as such, the Project would result in beneficial impacts on human beings. Therefore, implementation of the proposed Project would result in a less than significant impact.</p>				

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Attachment “A”

Air Quality and Greenhouse Gas Technical Memorandum



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TECHNICAL MEMORANDUM AIR QUALITY AND GREENHOUSE GASES

DATE: May 19, 2020

TO: Hector Guerra, Chief Environmental Planner

FROM: Jessica Willis, Planner IV

SUBJECT: Air Quality and Greenhouse Gas Assessments for the Angela Solar Project (PSP 19-083)

PROJECT DESCRIPTION

The proposed Project is located on a ±277-acre site and consists of a solar facility that would provide approximately 40 megawatts (MW) of electricity (renewable energy). Project components include: 138,408 solar (photo-voltaic, PV) modules mounted on single access trackers; associated motors, torque tubes, and drivelines for the single-axis tracking system; eleven (11) inverter stations; various wiring, underground cables, combiner boxes, inverters, and transformers; a new, on-site substation tying into a new mile-long 138-kV transmission interconnection line with the nearby Pacific Gas and Electric (PG&E) Olive substation; access and internal roads; security fencing; and, if applicable, motion activated lighting. Construction of the Project will be completed in six to nine months. Following its proposed 35-year life, the facility would be decommissioned and the site reclaimed as required by the County.

PURPOSE AND NEED FOR ASSESSMENT

This document is intended to assist Tulare County Resource Management Agency (RMA) staff in the preparation of the Air Quality and Greenhouse Gas components of the Mitigated Negative Declaration (MND) being prepared for the Angela Solar Project (PSP 19-083). The assessments have been conducted within the context of the California Environmental Quality Act (CEQA, California Public Resources Code Sections 21000, et seq.) and are intended to provide the County with sufficient detail regarding potential impacts of Project implementation and to identify mitigation measures, if necessary, to reduce potentially significant impacts.

Air Quality Assessment

The air quality assessment provided in this document was prepared to evaluate whether the air pollutant emissions generated from implementation of the Project would cause significant impacts to air quality and nuisance odor or health risks to nearby receptors. The estimated emissions are compared to federal and state ambient air quality standards (AAQS) and the thresholds of significance established by the San Joaquin Valley Unified Air Pollution Control

District (Air District). The methodology for the air quality assessment follows Air District recommendations for quantification of emissions and evaluation of potential impacts as provided in their guidance document *Guidance for Assessing and Mitigating Air Quality Impacts* (GAMAQI), adopted March 19, 2015.¹

Greenhouse Gas Assessment

The greenhouse gas (GHG) assessment provided in this document was prepared to evaluate whether the estimated GHG emissions generated from the implementation of the Project would cause significant impacts on global climate change. The methodology follows Air District recommendations for quantification of GHG emissions and evaluation of potential impacts on global climate change as provided in the GAMAQI, as well as their guidance and policy documents *Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Project under CEQA* (Guidance for Agencies) and *District Policy—Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency* (Air District Policy), adopted December 17, 2009.^{2,3}

Emissions Analyses

The Project will include construction and operational emissions. On-site construction activities include: site preparation, PV panel system installation, and installation of inverters, transformers, and substation. Off-site construction activities include installation of the collector system and interconnection with the PG&E Olive substation. Construction emissions include vehicle exhaust from on-site construction equipment as well as off-site material hauling and construction employee travel trips. On-site operational activities include vehicle exhaust from maintenance activities including panel washing and weed abatement. Off-site operational activities include transport of operation and maintenance supplies and employee travel trips.

SIGNIFICANCE THRESHOLDS

CEQA Guidelines define a significant effect on the environment as a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project.⁴ To determine if a project would have a significant impact on air quality and climate change, the type, level, and impact of criteria pollutant and GHG emissions generated by the project must be evaluated. Appendix G of the CEQA Guidelines provides the criteria (as Checklist Items) for evaluating potential impacts on the environment. The CEQA criteria and the Air District's significance thresholds and guidance for evaluation are provided below.

¹ Air District. *Guidance for Assessing and Mitigating Air Quality Impacts* (GAMAQI). March 19, 2015. Accessed November 2019 at: http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf.

² Air District. *Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Project under CEQA* (Guidance for Agencies). December 17, 2009. Accessed November 2019 at: <https://www.valleyair.org/Programs/CCAP/12-17-09/3%20CCAP%20-%20FINAL%20LU%20Guidance%20-%20Dec%2017%202009.pdf>.

³ Air District. *District Policy — Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency* (Air District Policy). Accessed November 2019 at: <https://www.valleyair.org/Programs/CCAP/12-17-09/2%20CCAP%20-%20FINAL%20District%20Policy%20CEQA%20GHG%20-%20Dec%2017%202009.pdf>.

⁴ CEQA §§ 15002(g), 15382

Air Quality Plans

The Air District has established thresholds of significance for criteria pollutant emissions. These thresholds are based on District New Source Review (NSR) offset requirements for stationary sources. “Stationary sources in the District are subject to some of the toughest regulatory requirements in the nation. Emission reductions achieved through implementation of District offset requirements are a major component of the District’s air quality plans. Thus, projects with emissions below the thresholds of significance for criteria pollutants would be determined to “Not conflict or obstruct implementation of the District’s air quality plan”.⁵

The Air District has three sets of significance thresholds based on the source of the emissions. According to the GAMAQI, “The District identifies thresholds that separate a project’s short-term emissions from its long-term emissions. The short-term emissions are mainly related to the construction phase of a project and are recognized to be short in duration. The long-term emissions are mainly related to the activities that will occur indefinitely as a result of project operations.”⁶

Long-term (operational) emissions are further separated into permitted and non-permitted equipment and activities. Stationary (permitted) sources that comply or will comply with Air District rules and regulations are generally not considered to have a significant air quality impact. Specifically, the GAMAQI states, “District Regulation II ensures that stationary source emissions will be reduced or mitigated to below the District’s significance thresholds... District implementation of New Source Review (NSR) ensures that there is no net increase in emissions above specified thresholds from New and Modified Stationary Sources for all nonattainment pollutants and their precursors. Furthermore, in general, permitted sources emitting more than the NSR Offset Thresholds for any criteria pollutant must offset all emission increases in excess of the thresholds....”⁷

The Air District’s significance thresholds are provided in **Table 1**.

Table 1. Air District Criteria Pollutant Significance Thresholds			
Pollutant/ Precursor	Construction Emissions	Operational Emissions	
		Permitted Equipment and Activities	Non- Permitted Equipment and Activities
	Emissions (tpy)	Emissions (tpy)	Emissions (tpy)
CO	100	100	100
NO_x	10	10	10
ROG	10	10	10
SO_x	27	27	27
PM₁₀	15	15	15
PM_{2.5}	15	15	15
Source: Air District, GAMAQI, Table 2, page 80; and http://www.valleyair.org/transportation/0714-GAMAQI-Criteria-Pollutant-Thresholds-of-Significance.pdf , accessed November 1, 2019.			

⁵ Air District, GAMAQI, Section 7.12, Page 65.

⁶ Air District, GAMAQI, Section 8.1, Page 75

⁷ Air District, GAMAQI, Section 8.2.1, Page 76

Air Quality Violations

“Determination of whether project emissions would violate any ambient air quality standard is largely a function of air quality dispersion modeling. If project emissions would not exceed State and Federal ambient air quality standards at the project’s property boundaries, the project would be considered to not violate any air quality standard or contribute substantially to an existing or projected air quality violation. The need to perform an air quality dispersion modeling analysis for any project (urban development, commercial, or industrial projects) is determined on a case-by-case basis depending on the level of emissions associated with the proposed project. If such modeling is found necessary, the project consultant should check with the District to determine the appropriate model and input data to use in the analysis. Specific information for assessing significance, including screening tools and modeling guidance is available on-line at the District’s website www.valleyair.org.”⁸

“The thresholds of significance for Ambient Air Quality are based on the California Ambient Air Quality Standard (CAAQS) and National Ambient Air Quality Standard (NAAQS). A project would be considered to have a significant impact if its emissions are predicted to cause or contribute to a violation of an ambient air quality standard by exceeding any of the following:

1. Any of the CAAQS, or
2. Any of the NAAQS, and if available, the associated Significant Impact Level (SIL).”⁹

Table 2 provides the California and National Ambient Air Quality Standards.

Table 2. Ambient Air Quality Standards				
Pollutant	Averaging Time	California Standards	National Standards	
		Concentration	Primary	Secondary
Ozone (O₃)	1 Hour	0.09 ppm (180 µg/m ³)	---	Same as Primary
	8 Hour	0.070 ppm (137 µg/m ³)	0.070 ppm* (137 µg/m ³)	
Respirable Particulate Matter (PM₁₀)	24 Hour	50 µg/m ³	150 µg/m ³	Same as Primary
	Annual Arithmetic Mean	20 µg/m ³	---	
Fine Particulate Matter (PM_{2.5})	24 Hour	---	35 µg/m ³	Same as Primary
	Annual Arithmetic Mean	12 µg/m ³	12.0 µg/m ³	15.0 µg/m ³
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)	---
	8 Hour	9.0 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)	---
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)	---	---
Nitrogen Dioxide (NO₂)	1 Hour	0.18 ppm (339 µg/m ³)	100 ppb (188 µg/m ³)	Same as Primary
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)	0.053 ppm (100 µg/m ³)	

⁸ Air District, GAMAQI, Section 7.13, Page 65

⁹ Air District, GAMAQI, Section 8.4, Page 90

Table 2. Ambient Air Quality Standards				
Pollutant	Averaging Time	California Standards	National Standards	
		Concentration	Primary	Secondary
Sulfur Dioxide (SO ₂)	1 Hour	0.25 ppm (655 µg/m ³)	75 ppb (196 µg/m ³)	---
	3 Hour	---	---	0.5 ppm (1300 µg/m ³)
	24 Hour	0.04 ppm (105 µg/m ³)	0.14 ppm (for certain areas)	---
	Annual Arithmetic Mean	---	0.030 ppm (for certain areas)	---
Lead	30 Day Average	1.5 µg/m ³	---	---
	Calendar Quarter	---	1.5 µg/m ³ (for certain areas)	Same as Primary
	Rolling 3-Month Average	---	0.15 µg/m ³	
Visibility Reducing Particles	8 Hour	Extinction of 0.23/km; visibility of 10 miles or more	No National Standards	
Sulfates	24 Hour	25 µg/m ³		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)		
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m ³)		
* The standard at the time of the GAMAQI was 0.075 ppm; the standard presented here was finalized on October 26, 2015. Abbreviations: ppm = parts per million; mg/m ³ = milligram per cubic meter; µg/m ³ = micrograms per cubic meter. Sources: Air District, GAMAQI, Table 3, page 91; ARB, http://www.arb.ca.gov/research/aaqs/aaqs2.pdf , accessed November 1, 2019.				

“The District ISR rule exempts small development projects (see Table 4 [of the GAMAQI]) from project-specific mitigation requirements. The District performed extensive analysis to identify small projects for which additional mitigation is not feasible. For instance, the exemptions include small residential housing developments of less than 50 units and commercial developments of less than 2,000 square feet. All projects on the exemption list emit less than 2 tons per year of either PM₁₀ or NO_x, which is substantially lower than the District’s 10-ton per year significance thresholds. Furthermore, as the tailpipe emissions from motor vehicles continue to decline, these projects will emit even less today than was estimated in 2005 when this rule was adopted. In addition, two tons per year is expected to result in daily emissions of less than the 100 lb/day screening level for either NO_x or PM₁₀ that the District has concluded that projects under the ISR exemption thresholds will have a less than significant impact on air quality. Consequently, projects below ISR applicability thresholds are not expected to exceed the thresholds of significance for criteria pollutants emissions (see Section 8.3 [of the GAMAQI]). In addition, projects below the ISR applicability thresholds are not expected to violate any air quality standards or contribute substantially to an existing or projected air quality violation and will not exceed the thresholds of significance for ambient air quality. In this case, the District concludes no emission calculation is needed and no ambient air quality analysis is required.”¹⁰

¹⁰ Air District, GAMAQI, Section 8.4.4, Page 95

Table 3 provides the Air District’s ambient air quality analysis (AAQA) screening levels for development projects. For projects that exceed the screening thresholds identified in Table 4, the Air District provides further guidance on how to evaluate the 100 pound per day screening level in their guidance document *Ambient Air Quality Analysis Project Daily Emissions Assessment*.¹¹

Table 3: AAQA Screening Levels For Development Project	
Development Project Type	Space / Size
Residential	50 dwelling units
Commercial	2,000 square feet
Light Industrial	25,000 square feet
Heavy Industrial	100,000 square feet
Medical Office	20,000 square feet
General Office	39,000 square feet
Educational	9,000 square feet
Governmental	10,000 square feet
Recreational	20,000 square feet
Transportation / Transit	Construction exhaust emissions equal or exceeding 2.0 tons NOx or 2.0 tons PM ₁₀
Source: Air District, GAMAQI, Table 4, page 96	

Cumulative Increase in Emissions

“By its very nature, air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development. Future attainment of State and Federal ambient air quality standards is a function of successful implementation of the District’s attainment plans. Consequently, the District’s application of thresholds of significance for criteria pollutants is relevant to the determination of whether a project’s individual emissions would have a cumulatively significant impact on air quality. A Lead Agency may determine that a project’s incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program, including, but not limited to an air quality attainment or maintenance plan that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located [CCR §15064(h)(3)]. Thus, if project specific emissions exceed the thresholds of significance for criteria pollutants the project would be expected to result in a cumulatively considerable net increase of any criteria pollutant for which the District is in non-attainment under applicable Federal or State ambient air quality standards. This does not imply that if the project is below all such significance thresholds, it cannot be cumulatively significant.”¹²

Table 4 provides the San Joaquin Valley Air Basin attainment status for federal and state ambient air quality standards.

¹¹ Air District, <http://www.valleyair.org/transportation/CEQA%20Rules/Ambient-Air-Quality-Analysis-Project-Daily-Emissions-Assessment.pdf>, accessed November 1, 2019.

¹² Air District, GAMAQI, Section 7.14, Pages 65-66

Table 4. San Joaquin Valley Attainment Status		
Pollutant	Designation	
	Federal Standards	State Standards
Ozone—1-hour	No Federal Standard	Nonattainment/Severe
Ozone—8-hour	Nonattainment/Extreme	Nonattainment
PM ₁₀	Attainment	Nonattainment
PM _{2.5}	Nonattainment	Nonattainment
Carbon monoxide	Attainment/Unclassified	Attainment/Unclassified
Nitrogen dioxide	Attainment/Unclassified	Attainment
Sulfur dioxide	Attainment/Unclassified	Attainment
Lead (Particulate)	No Designation/Classification	Attainment
Hydrogen sulfide	No Federal Standard	Unclassified
Sulfates	No Federal Standard	Attainment
Visibility-reducing particles	No Federal Standard	Unclassified
Vinyl chloride	No Federal Standard	Attainment
Source: Air District, http://www.valleyair.org/aqinfo/attainment.htm , accessed November 1, 2019.		

Exposure Risks

The location of a project is a major factor in determining whether the project will result in localized air quality impacts. The potential for adverse air quality impacts increases as the distance between the source of emissions and receptors decreases. From a health risk perspective, there are two (2) categories of projects that have the potential to cause long-term health risks impacts:

- Type A Projects: Land use projects that will place new toxic sources in the vicinity of existing receptors. This category includes sources of toxic emissions such as gasoline dispensing facilities, asphalt batch plants, warehouse distribution centers, freeways and high traffic roads, and other stationary sources that emit toxic substances.
- Type B Projects: Land use projects that will place new receptors in the vicinity of existing toxic sources. This category includes residential, commercial, and institutional developments proposed in the vicinity of existing sources such as stationary sources, freeways and high traffic roads, rail yards, and warehouse distribution centers.¹³

“Various tools already exist to perform a screening analysis from stationary sources impacting receptors (Type A projects) as developed for the AB2588 Hot Spots and air district permitting programs. Screening tools may include prioritization charts, AERSCREEN and various spreadsheets. For projects being impacted by existing sources (Type B projects), one screening tool is contained in the ARB Handbook: *Air Quality and Land Use Handbook: A Community Health Perspective*. The document includes a table entitled “*Recommendations on Siting New Sensitive Land Uses Such As Residences, Schools, Daycare Centers, Playgrounds, or Medical Facilities*” with recommended buffer distances associated with various types of common sources. If a proposed project is located within an established buffer distance to any of the listed sources, a health risk screening and/or assessment should be performed to assess risk to potential sensitive receptors. These guidelines are intended only for projects that are impacted by a single

¹³ Air District, GAMAQI, Section 6.5, Page 44

source. Another useful tool is the CAPCOA Guidance Document: *Health Risk Assessments for Proposed Land Use Projects*. CAPCOA prepared the guidance to assist Lead Agencies in complying with CEQA requirements. The guidance document describes when and how a health risk assessment should be prepared and what to do with the results.”¹⁴

Table 5 presents the Air District’s and ARB’s siting recommendations for projects proposing sensitive land uses.

Table 5: ARB Recommendations on Siting New Sensitive Land Uses	
Source Category	Advisory Recommendations
Freeways and High-Traffic Roads	Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day.
Distribution Centers	Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units (TRUs) per day, or where TRU unit operations exceed 300 hours per week). Take into account the configuration of existing distribution centers and avoid locating residences and other new sensitive land uses near entry and exit points.
Rail Yards	Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard. Within one mile of a rail yard, consider possible siting limitations and mitigation approaches.
Ports	Avoid siting of new sensitive land uses immediately downwind of ports in the most heavily impacted zones. Consult local air districts or the ARB on the status of pending analyses of health risks.
Refineries	Avoid siting new sensitive land uses immediately downwind of petroleum refineries. Consult with local air districts and other local agencies to determine an appropriate separation.
Chrome Platers	Avoid siting new sensitive land uses within 1,000 feet of a chrome plater.
Dry Cleaners Using Perchloroethylene	Avoid siting new sensitive land uses within 300 feet of any dry cleaning operation. For operations with two or more machines, provide 500 feet. For operations with 3 or more machines, consult with the local air district. Do not site new sensitive land uses in the same building with perchloroethylene dry cleaning operations.
Gasoline Dispensing Facilities	Avoid siting new sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50 foot separation is recommended for typical gas dispensing facilities.
Sources: Air Resources Board, <i>Air Quality and Land Use Handbook: A Community Health Perspective</i> , Page 4, Table 1-1, https://www.arb.ca.gov/ch/handbook.pdf , accessed November 1, 2019. California Air Pollution Control Officers Association, <i>Health Risk Assessments for Proposes Land Use Projects</i> , Page 9, Table 2, http://www.valleyair.org/transportation/CAPCOA_HRA_LU_Guidelines_8-6-09.pdf , accessed November 1, 2019.	

“Determination of whether project emissions would expose sensitive receptors to substantial pollutant concentrations is a function of assessing potential health risks. Sensitive receptors are facilities that house or attract children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Hospitals, schools, convalescent facilities, and

¹⁴ Air District, GAMAQI, Section 6.5, Page 45

residential areas are examples of sensitive receptors. When evaluating whether a development proposal has the potential to result in localized impacts, Lead Agency staff need to consider the nature of the air pollutant emissions, the proximity between the emitting facility and sensitive receptors, the direction of prevailing winds, and local topography. Lead Agencies are encouraged to use the screening tools for Toxic Air Contaminant presented in section 6.5 (Potential Land Use Conflicts and Exposure of Sensitive Receptors [pages 44 – 45 of the GAMAQI]) to identify potential conflicts between land use and sensitive receptors and include the result of their analysis in the referral document.”¹⁵

Nuisance Odors

“Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, there are no quantitative or formulaic methodologies to determine the presence of a significant odor impact. Rather, the District recommends that odor analyses strive to fully disclose all pertinent information. The intensity of an odor source’s operations and its proximity to sensitive receptors influences the potential significance of odor emissions. The District has identified some common types of facilities that have been known to produce odors in the San Joaquin Valley. These are presented in Chapter 8 [of the GAMAQI] along with a reasonable distance from the source within which, the degree of odors could possibly be significant.”¹⁶

Two situations create a potential for odor impact. The first occurs when a new odor source is located near an existing receptor. The second occurs when a new receptor locates near an existing source of odor. “An analysis of potential odor impacts should be conducted for the following two situations:

1. Generators – projects that would potentially generate odorous emissions proposed to locate near existing sensitive receptors or other land uses where people may congregate, and
2. Receivers – residential or other sensitive receptor projects or other projects built for the intent of attracting people locating near existing odor sources.”¹⁷

“The intensity of an odor source’s operations and its proximity to sensitive receptors influences the potential significance of odor emissions. The District has identified some common types of facilities that have been known to produce odors in the San Joaquin Valley Air Basin. These are presented in Table 6 (Screening Levels For Potential Odor Sources) [of the GAMAQI] along with a reasonable distance from the source within which, the degree of odors could possibly be significant. Table 6 (Screening Levels for Potential Odor Sources) [of the GAMAQI], can be used as a screening tool to qualitatively assess a project’s potential to adversely affect area receptors. This list of facilities is not all-inclusive. The Lead Agency should evaluate facilities not included in the table or projects separated by greater distances if warranted by local conditions or special circumstances. If the proposed project would result in sensitive receptors being located closer than the screening level distances, a more detailed analysis should be provided.”¹⁸

¹⁵ Air District, GAMAQI, Section 7.15, Page 66

¹⁶ Air District, GAMAQI, Section 7.16, Pages 66-67

¹⁷ Air District, GAMAQI, Section 8.6, Page 102

¹⁸ Air District, GAMAQI, Section 8.6, Pages 102-103

Table 6 presents the Air District’s screening levels for potential nuisance odor sources.

Table 6. Air District Screening Levels for Potential Odor Sources	
Odor Generator / Type of Facility	Distance
Wastewater Treatment Facilities	2 miles
Sanitary Landfill	1 mile
Transfer Station	1 mile
Composting Facility	1 mile
Petroleum Refinery	2 miles
Asphalt Batch Plant	1 mile
Chemical Manufacturing	1 mile
Fiberglass Manufacturing	1 mile
Painting/Coating Operations (e.g., auto body shop)	1 mile
Food Processing Facility	1 mile
Feed Lot/Dairy	1 mile
Rendering Plant	1 mile
Sources: Air District, GAMAQI, Table 6, page 103; and http://www.valleyair.org/transportation/GAMAQI-2015/GAMAQI-Criteria-Pollutant-Thresholds-of-Odors.pdf .	

2017 Climate Change Scoping Plan

The California State Legislature adopted Senate Bill 32 (SB 32) on September 8, 2016. SB 32 focuses on reducing GHG emissions to 40% below 1990 levels by the year 2030. Pursuant to the requirements in SB 32, the ARB adopted the Climate Change Scoping Plan Update (2017 Scoping Plan), which outlines actions recommended to obtain that goal. ARB recommends statewide targets of no more than six (6) metric tons CO_{2e} per capita by 2030 and no more than two (2) metric tons CO_{2e} per capita by 2050.¹⁹

Air District Guidance

“On December 17, 2009, the District’s Governing Board adopted the District Policy: *Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency*. The District’s Governing Board also approved the guidance document: *Guidance for Valley Land-Use Agencies in Addressing GHG Emission Impacts for New Projects Under CEQA*. In support of the policy and guidance document, District staff prepared a staff report: *Addressing Greenhouse Gas Emissions Under the California Environmental Quality Act*. These documents adopted in December of 2009 continue to be the relevant policies to address GHG emissions under CEQA. As these documents may be modified under a separate process, the latest versions should be referenced to determine the District’s current guidance at the time of analyzing a particular project.”²⁰

“It is widely recognized that no single project could generate enough GHG emissions to noticeably change the global climate temperature. However, the combination of GHG emissions

¹⁹ ARB, California’s 2017 Climate Change Scoping Plan, Page 99, https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed November 1, 2019.

²⁰ Air District, GAMAQI, Section 8.9, Page 110

from past, present and future projects could contribute substantially to global climate change. Thus, project specific GHG emissions should be evaluated in terms of whether or not they would result in a cumulatively significant impact on global climate change. GHG emissions, and their associated contribution to climate change, are inherently a cumulative impact issue. Therefore, project-level impacts of GHG emissions are treated as one-in-the-same as cumulative impacts.

In summary, the staff report evaluates different approaches for assessing significance of GHG emission impacts. As presented in the report, District staff reviewed the relevant scientific information and concluded that the existing science is inadequate to support quantification of the extent to which project specific GHG emissions would impact global climate features such as average air temperature, average rainfall, or average annual snow pack. In other words, the District was not able to determine a specific quantitative level of GHG emissions increase, above which a project would have a significant impact on the environment, and below which would have an insignificant impact. This is readily understood, when one considers that global climate change is the result of the sum total of GHG emissions, both manmade and natural that occurred in the past; that is occurring now; and will occur in the future.

In the absence of scientific evidence supporting establishment of a numerical threshold, the District policy applies performance based standards to assess project-specific GHG emission impacts on global climate change. The determination is founded on the principal that projects whose emissions have been reduced or mitigated consistent with the California Global Warming Solutions Act of 2006, commonly referred to as “AB 32”, should be considered to have a less than significant impact on global climate change. For a detailed discussion of the District’s establishment of thresholds of significance for GHG emissions, and the District’s application of said thresholds, the reader is referred to the above referenced staff report, District Policy, and District Guidance documents.”²¹

“As presented in Figure 6 (Process of Determining Significance of Greenhouse Gas Emissions) [of the GAMAQI], the policy provides for a tiered approach in assessing significance of project specific GHG emission increases.

- Projects complying with an approved GHG emission reduction plan or GHG mitigation program which avoids or substantially reduces GHG emissions within the geographic area in which the project is located would be determined to have a less than significant individual and cumulative impact for GHG emissions. Such plans or programs must be specified in law or approved by the Lead Agency with jurisdiction over the affected resource and supported by a CEQA compliant environmental review document adopted by the Lead Agency. Projects complying with an approved GHG emission reduction plan or GHG mitigation program would not be required to implement Best Performance Standards (BPS).
- Projects implementing BPS would not require quantification of project specific GHG emissions. Consistent with CEQA Guideline, such projects would be determined to have a less than significant individual and cumulative impact for GHG emissions.
- Projects not implementing BPS would require quantification of project specific GHG emissions and demonstration that project specific GHG emissions would be reduced or mitigated by at least 29%, compared to Business as Usual (BAU), including GHG emission reductions achieved since the 2002-2004 baseline period, consistent with GHG

²¹ Air District, GAMAQI, Section 8.9.1, Pages 111-112

emission reduction targets established in ARB's AB 32 Scoping Plan. Projects achieving at least a 29% GHG emission reduction compared to BAU would be determined to have a less than significant individual and cumulative impact for GHG.

The District guidance for development projects also relies on the use of BPS. For development projects, BPS includes project design elements, land use decisions, and technologies that reduce GHG emissions. Projects implementing any combination of BPS, and/or demonstrating a total 29 percent reduction in GHG emissions from business-as-usual (BAU), would be determined to have a less than cumulatively significant impact on global climate change.”²²

The Air District's *Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Project under CEQA* states, “Projects implementing Best Performance Standards in accordance with this guidance would be determined to have a less than significant individual and cumulative impact on global climate change and would not require project specific quantification of GHG emissions. Projects exempt from the requirements of CEQA, and projects complying with an approved GHG emission reduction plan or mitigation program would also be determined to have a less than significant individual or cumulative impact. Such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources and have a certified final CEQA document. Projects not implementing BPS would require quantification of project specific GHG emissions. To be determined to have a less than significant individual and cumulative impact on global climate changes, such projects must be determined to have reduced or mitigated GHG emissions by 29%, consistent with GHG emission reduction targets established in ARB's AB 32 Scoping Plan. Furthermore, quantification of GHG emissions would be expected for all projects for which the lead agency has determined that an Environmental Impact Report is required, regardless of whether the project incorporates Best Performance Standards.”²³

“If total GHG emissions reductions measures add up to 29% or more, are enforceable, and are required as a part of the development's approval process, the project achieves the Best Performance Standard (BPS) for the respective type of development project. Thus, the GHG emissions from the development project would be determined to have a less than individually and cumulatively significant impact on global climate change for CEQA purposes.”²⁴

“By definition, BPS for development projects is achieving a project-by-project 29% reduction in GHG emissions, compared to BAU. Thus, it is reasonable to conclude that Lead Agencies implementing the proposed *Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA* threshold will achieve an overall reduction in GHG emissions consistent with AB 32 emission reduction targets...”²⁵

Figure 1 provides a visual summary of the Air District's process for determining significance of project-related GHG emissions.

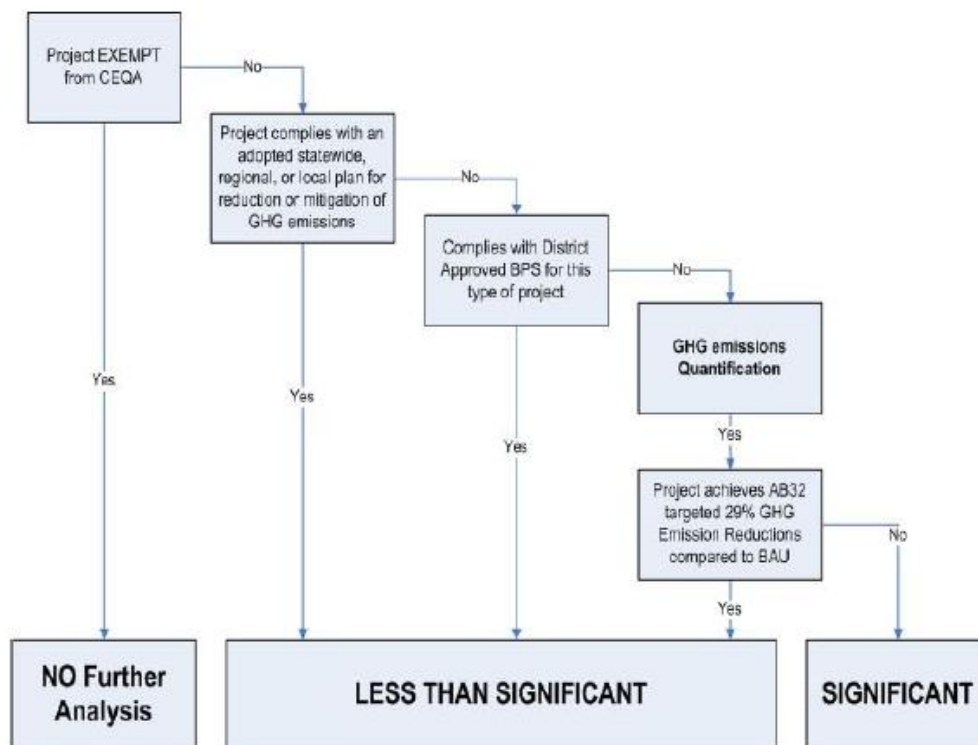
²² Air District, GAMAQI, Section 8.9.1, Page 112

²³ Air District, Guidance for Valley Land-use Agencies, Page 4

²⁴ Air District, Guidance for Valley Land-use Agencies, Pages 7-8

²⁵ Air District, Guidance for Valley Land-use Agencies, Page 8

Figure 1. Process of Determining Significance of Greenhouse Gas Emissions



Source: Air District, GAMAQI, Figure 6, Page 113

The Air District’s guidance document was adopted to provide a basis for lead agencies to establish significance thresholds consistent with ARB’s 2008 Scoping Plan. The Air District currently does not have a recommendation for establishing thresholds or assessing significance consistent with the reduction requirements established in ARB’s 2017 Scoping Plan Update, which requires a 33.2% reduction from BAU to achieve the 2030 target. As such, Tulare County prepared and adopted the Tulare County 2018 Climate Action Plan (CAP) Update.

“The CAP serves as a guiding document for County of Tulare (“County”) actions to reduce greenhouse gas emissions and adapt to the potential effects of climate change. The CAP is an implementation measure of the 2030 General Plan Update. The General Plan provides the supporting framework for development in the County to produce fewer greenhouse gas emissions during Plan buildout. The CAP builds on the General Plan’s framework with more specific actions that will be applied to achieve emission reduction targets consistent with California legislation.”²⁶

“The County of Tulare (County) adopted the Tulare County Climate Action Plan (CAP) in August 2012. The CAP includes provisions for an update when the State of California Air Resources Board (CARB) adopts a Scoping Plan Update that provides post-2020 targets for the State and an updated strategy for achieving a 2030 target. Governor Brown signed Senate Bill (SB) 32 on September 8, 2016 which contains the new 2030 target. The CARB 2017 Scoping Plan Update for the Senate Bill (SB) 32 2030 targets was adopted by the CARB on December

²⁶ Tulare County Climate Action Plan, December 2018 Update. Page 1.
<http://generalplan.co.tulare.ca.us/documents/GP/001Adopted%20Tulare%20County%20General%20Plan%20Materials/220Climate%20Action%20Plan/CLIMATE%20ACTION%20PLAN%202018%20UPDATE.pdf>. Accessed November 1, 2019.

14, 2017 which provided new emission inventories and a comprehensive strategy for achieving the 2030 target (CARB 2017a). With the adoption of the 2017 Scoping Plan, the County proceeded with the 2018 CAP Update that is provided in this document.

The 2018 CAP Update incorporates new baseline and future year inventories to reflect the latest information and updates the County's strategy to address the SB 32 2030 target. The 2030 target requires the State to reduce emissions by 40 percent below 1990 levels from the 2017 Scoping Plan and County data. The CAP identifies the County's fair share of reductions required to maintain consistency with the State target."²⁷

IMPACT EVALUATION

AIR QUALITY IMPACTS

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

Impact Analysis:

Less Than Significant Impact

Air quality plans (also known as AQPs or attainment plans) and subsequent rules are used to bring the applicable air basin into attainment with federal AAQS designed to protect the health and safety of residents within that air basin. In order to show attainment of the standards, the Air District analyzes the growth projections in the San Joaquin Valley Air Basin (SJVAB), contributing factors in the formation and emission of air pollutants, and existing and future emissions controls. The Air District then formulates an AQP which details the Air District's control strategy to reach attainment. The Air District's 2016 Plan for the 2008 8-Hour Ozone Standard, 2013 Plan for the Revoked 1-Hour Ozone Standard, 2007 Ozone Plan, 2007 PM₁₀ Maintenance Plan and Request for Redesignation, 2008 PM_{2.5} Plan, 2012 PM_{2.5} Plan, 2015 Plan for the 1997 PM_{2.5} Standard, and the 2016 Moderate Area Plan for the 2012 PM_{2.5} Standard outline a number of control strategies to help the SJVAPCD reach attainment for the revoked federal 1-hour ozone standard, the 24-hour PM₁₀ standard, and the federal and state PM_{2.5} standards, respectively. The 2008 PM_{2.5} Plan, 2012 PM_{2.5} Plan, and 2015 Plan for the 1997 PM_{2.5} Standard focus specifically on PM_{2.5}, although the control strategies from previous PM₁₀ plans (particularly those related to fugitive dust control) have already improved the SJVAB ambient PM_{2.5} levels. Therefore, because fugitive dust controls continue to be addressed in the PM₁₀ plan, the plans contain a comprehensive list of strict regulatory and incentive-based measures to reduce directly-emitted PM_{2.5} and precursor emissions. The San Joaquin Valley Air Basin is in attainment for CO, SO₂, and lead, so there are no attainment plans for those pollutants.²⁸ The proposed Project will be required to comply with all applicable Air District rules and regulations including, but not limited to, Regulation VIII (Fugitive PM₁₀ Prohibitions) requirements and District Rule 9510 (Indirect Source Review).

As previously noted, the Air District has determined that projects with emissions below the thresholds of significance for criteria pollutants (see **Table 1**) would "Not conflict or obstruct implementation of the District's air quality plan."²⁹ Project-related emissions have been estimated (using CalEEMod, Version 2016.3.2) from a similar solar project and are used in this

²⁷ Ibid.

²⁸ More information on Air District air quality plans can be found online at http://valleyair.org/Air_Quality_Plans/air-quality-plans.htm.

²⁹ Air District, GAMAQI, Section 7.12, Page 65.

assessment by analogy as similar projects will likely result in similar emissions. This Project is smaller than the comparative project and will likely generate fewer emissions. CalEEMod was used to quantify annual construction-related activities ROG, NOx, CO, SO₂, PM_{2.5} and PM₁₀ emissions from off-road equipment, haul trucks, on-road worker vehicle emissions, and vendor delivery trips. Since CalEEMod does not contain a Solar Array Land use type, a user defined industrial land use type was used to estimate on-site construction emissions.

Implementation of the proposed Project would result in a renewable energy resource that would generate no direct emissions of criteria air pollutants. Indirect on- and off-site emissions of criteria pollutants associated with proposed Project operation would be generated as a result of employee trips related to maintenance and periodic PV panel washing activities. The proposed Project site would be monitored remotely 24-hours a day, seven days a week. Visits to the site for emergency purposes/upset events would likely, if at all, occur infrequently (i.e., only a few times per year).

Table 7 provides the construction-related criteria pollutant emissions and **Table 8** provides the operations-related criteria pollutant emissions associated with the development of the Project. As shown in **Tables 7** and **8**, the estimated Project emissions will not exceed the Air District's CEQA significance thresholds for any pollutants. This determination is based on comparing the previously approved Deer Creek Solar Project's emissions to the proposed Project. As air emissions are linear by nature, this Project is approximately 75% the size of Deer Creek Solar and, as such, it would emit 75% less emissions than Deer Creek Solar. Attachment "A" includes the project comparison calculations and Attachment "C" includes the Deer Creek Solar CalEEMod results.

Table 7. Construction Emissions Estimates (unmitigated)						
Project	Estimated Emissions, tons per year					
	ROG	NOx	CO	SO ₂	Total PM ₁₀	Total PM _{2.5}
Deer Creek Solar	0.6798	7.6107	5.2542	0.0130	0.6877	0.4354
Angela Solar	0.5099	5.7080	3.9407	0.0098	0.5158	0.3266
SJVAPCD Threshold	10	10	100	27	15	15
Threshold Exceeded	No	No	No	No	No	No
<i>Source: See Attachment "A" of this document.</i>						

Table 8. Annual Operational Emissions Estimates (unmitigated)						
Project	Estimated Emissions, tons per year					
	ROG	NOx	CO	SO ₂	Total PM ₁₀	Total PM _{2.5}
Deer Creek Solar	0.0025	0.0075	0.0400	0.0001	0.0105	0.00286
Angela Solar	0.0019	0.0056	0.0300	0.0001	0.0079	0.0021
SJVAPCD Threshold	10	10	100	27	15	15
Threshold Exceeded	No	No	No	No	No	No
<i>Source: See Attachment "A" of this document.</i>						

As previously noted, the primary source of emissions from the Project are the result of on-site construction equipment and on-road hauling of construction materials. The Air District evaluates significance of short-term (construction) emissions independent of long-term (operational) emissions. As demonstrated in **Tables 7** and **8**, the estimated Project-related emissions during construction and operations will not exceed the Air District's CEQA significance thresholds for

any criteria pollutant. The Project will comply with all applicable Air District rules and regulations including, but not limited to, Regulation VIII (Fugitive PM10 Prohibition) and Rule 9510 (Indirect Source Review), which will further reduce Project-related emissions. As such, Project-related emissions would be included in the AQPs emissions inventories. Therefore, the Project would not conflict with or obstruct implementation of the applicable AQPs. The Project will have a ***Less Than Significant Impact*** related to this Checklist Item.

Mitigation Measures: ***None Required***

Conclusion: ***Less Than Significant Impact***

As previously noted, the Project will not exceed the Air District's thresholds of significance and therefore, will not conflict with or obstruct implementation of the applicable air quality plans. As such, ***Less Than Significant Impacts*** related to this Checklist Item will occur.

b) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard?

Impact Analysis: ***Less Than Significant Impact***

The Project would be considered to have a significant cumulative impact on air quality if project-specific impacts are determined to be significant. As previously noted, the emissions analysis confirms that Project-specific emissions are below the Air District's thresholds of significance at a project-specific level, and that the Project will not cause or contribute to an existing air quality violation. The Project will be required to implement all applicable General Plan policies and to comply with all applicable Air District rules and regulations. Therefore, because the Project would have ***Less Than Significant Project-specific Impacts***, the Project will have a ***Less Than Significant Cumulative Impact*** on air quality.

Mitigation Measures: ***None Required***

Conclusion: ***Less Than Significant Impact***

As previously noted, Project-related criteria pollutant emissions fall below the Air District's significance thresholds and the Project will be required to implement all applicable General Plan policies and to comply with all applicable Air District rules and regulations. Therefore, the Project will have a ***Less Than Significant Cumulative Impact*** related to this Checklist Item.

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

Impact Analysis: ***Less Than Significant Impact With Mitigation***

Sensitive receptors are those individuals who are sensitive to air pollution and include children, the elderly, and persons with pre-existing respiratory or cardiovascular illness. The Air District considers a sensitive receptor to be a location that houses or attracts children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Examples of

sensitive receptors include schools, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential dwelling units.³⁰

Diesel particulate matter (DPM) represents the primary toxic air contaminates (TAC) of concern associated with the proposed Project. DPM emissions are primarily the result of the operation of internal combustion engines in equipment (e.g., loaders, backhoes, and cranes, as well as haul trucks) commonly associated with construction-related activities. Since activities associated with the operation-related activities of the proposed Project would result in short-term, temporary, and intermittent use of mobile or stationary sources of DPM (e.g., maintenance workers driving to and from the Project site, and the occupational use of off-road equipment to move equipment), operation-related activities of the proposed Project would not expose nearby sensitive receptors to DPM emissions that would result in a health risk. Therefore, health risks associated only with proposed Project construction-related activities are evaluated below.

The dose to which receptors are exposed is the primary factor affecting health risk from TACs. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. According to the State of California Office of Environmental Health Hazard Assessment (OEHHA), health risk assessments (which determine the exposure of sensitive receptors to TAC emissions), should be based on 9, 30, and/or 70-year exposure periods when assessing TACs (such as DPM) that have only cancer or chronic non-cancer health effects. However, such health risk assessments should be limited to the duration of the emission-producing activities associated with the Project, unless the activities occur for less than 6-months. Activities that would last more than 2-months, but less than 6 months, are recommended to be evaluated as if they would last for 6-months. The OEHHA does not recommend assessing cancer risk for projects lasting less than 2-months near the maximum exposed individual resident (MEIR). Since construction-related activities of the proposed Project would occur over a 6-to-9 month period and the nearest sensitive receptors (property owners who are leasing the land to accommodate the Project and are upwind of the Project) are located within 200 feet from the proposed Project's northern boundary, the proposed Project has the potential to temporarily and intermittently expose off-site sensitive receptors to increased criteria pollutant emission concentrations from diesel powered construction-related equipment during the short-term, temporary construction-related phase.

The Air District recommends conducting a screening analysis for projects that have the potential to expose sensitive receptors to TAC emissions (e.g. DPM during project construction-related activities) that could pose a significance health risk. The SJVAPCD has devolved a prioritization tool to evaluate whether a Health Risk Assessment (HRA) should be prepared, which is based on the California Air Pollution Control Officers Association's (CAPCOA) latest methodology and OEHHA guidance. According to the Air District guidance, projects that obtain a prioritization score of 10 or more is considered to be potentially significant and a refined analysis and an HRA may be required for the project.

The Air District's prioritization screening tool was used to evaluate the potential health risks during proposed Project construction-related activities. Similar to the discussion at Item a) above, emissions have been estimated (using the District approved prioritization screening tool) using data from the Deer Creek Solar Project and are used in this document by analogy as similar projects will likely result in similar emissions. As previously noted, this Project is smaller than

³⁰ Air District, *Guidance for Assessing and Mitigating Air Quality Impacts*, page 10

the comparative project (approximately 75% of the size) and will likely generate fewer emissions. The operation of each piece of equipment within the proposed Project site would not be constant throughout the day and all the equipment would not operate concurrently at the same location of the proposed Project construction-related area. Again, by analogy, the use of Deer Creek Solar's emissions compared to this Project's emissions would result in 75% of Deer Creek Solar's emission (see Attachment "A"), construction-related emissions would occur in less month (6-9 months versus Deer Creek Solar's 12 months) and sensitive receptors (scattered rural residences) would be upwind of Project emissions.

The result of the analysis can be found in **Table 9**, which is based on an emission rate of 37.35 pounds per year of PM₁₀ exhaust. Modeling outputs can be found in Attachment "B". As shown in **Table 9**, residences within 500 meters (i.e., 1,640 feet) would result in a score greater than 10 as allowed by the Air District.

Table 9. Project Construction Prioritization Score		
Receptor Proximity (in meters)	Unmitigated Max Score	Mitigated Max Score
0 < R < 100	1100	86
100 < R < 250	275	22
250 < R < 500	44	3
500 < R < 1,000	12	1
1,000 < R < 1,500	3	0
1,500 < R < 2,000	2	0
2,000 < R	1	0
<i>Prioritization score is based on an annual emission rate of 37.35 pounds per year emission rate; see Attachment A for emission rate calculations and Attachment B for prioritization screening results.</i>		

To quantify the maximum prioritization score, the receptor proximity is based on the distance between the center of the proposed Project construction-related area and the nearest sensitive receptor. The nearest receptors are within approximately 61 meters (i.e., 200 feet) of the solar array boundary. Using the Air District's prioritization tool, annual emission rate of 37.35 pounds per year of PM₁₀ exhaust, and a receptor proximity distance of 61 meters, the proposed Project would obtain a score of 1,000, which would exceed the Air District's allowed score of 10. Therefore, emissions from construction-related activities of the proposed Project could expose nearby sensitive receptor to DPM that could result in a significant health risk. However, similar to Deer Creek Solar, implementation of **Mitigation Measure AQ-1**, would reduce the max score by requiring the proposed Project applicant to use Tier 4 engines for all off-road construction equipment during project construction-related activities. Tier 4 engines use advanced engine controls and sensors that significantly reduce engine emissions on all four constituents (NO_x, HC, CO and PM). As demonstrated in **Table 9**, the use of Tier 4 engines would reduce DPM emissions generated by off-road equipment to a max score to 86, which exceeds the Air District's allowed score.

As previously noted, the operation of each piece of equipment within the proposed Project site would not be constant throughout the day and all the equipment would not operate concurrently at the same location of the proposed Project construction-related area. The prioritization screening tool assumes a 70-year exposure and as such, is likely to overestimate potential health risks as Project-related construction activities will be completed within nine months (or 1% of the exposure time utilized by the tool). Although the Project is not expected to result in

significant health risk to the nearby receptors, a condition of approval requiring the Project applicant to consult with the Air District and obtain a refined analysis will be incorporated into the Project. Results of this analysis shall be provided to Tulare County Resource Management Agency's Planning Division prior to Project approval. Therefore, with implementation of **Mitigation Measure AQ-1** and implementation of the condition of approval, Project construction-related activities would result in less than significant health risks. As such, ***Less Than Significant Impacts With Mitigation*** related to this Checklist Item will occur.

Mitigation Measures: ***None Required***

AQ-1: *Engine Standards for Off-Road Equipment.* In order to reduce the impact of PM₁₀ off-road equipment exhaust emissions during construction-related activities, applicant shall ensure that construction contracts stipulate that all off-road diesel-powered equipment used will be equipped with USEPA Tier 4 or cleaner engines, except for specialized equipment in which an USEPA Tier 4 engine is not available. In lieu of Tier 4 engines, project equipment can incorporate retrofits such that emissions reductions achieved equal to that of the Tier 4 engines at a minimum. The construction contractor shall submit a detailed list of the equipment fleet that demonstrates achievement of this mitigation measure to Tulare County Resource Management Agency Planning Branch for approval prior to receiving Notice to Proceed.

Conclusion: ***Less Than Significant Impact With Mitigation***

Although the prioritization score exceeds the Air District's allowed score of 10, the Project is not expected to result in significant health risk to the nearby receptors. A condition of approval requiring the Project applicant to consult with the Air District and obtain a refined analysis will be incorporated into the project. Results of refined analysis shall be provided to Tulare County Resource Management Agency's Planning Division prior to Project approval. Therefore, with implementation of **Mitigation Measure AQ-1** and implementation of the condition of approval, Project construction-related activities would result in less than significant health risks. As such, ***Less Than Significant Impacts With Mitigation*** related to this Checklist Item will occur.

d) Would the project result in other emissions (such as those leading to odors adversely affecting a substantial number of people?)

Impact Analysis: ***Less Than Significant Impact***

Operation of the proposed Project would not create odorous emissions. Project construction-related activities would include fuels and other odor sources (such as diesel-fueled equipment and fumes from architectural coating operations), could result in the creation of objectionable odors. Since construction-related activities would be short-term, temporary, and spatially dispersed (i.e., intermittent), and occur in a predominantly rural area, these activities would not affect a substantial number of people. ***Less Than Significant Project-specific Impacts*** related to this Checklist Item will occur.

Mitigation Measures: ***None Required***

Conclusion: ***Less Than Significant Impact***

The Project is not a source of nuisance odors. As such, the Project will not expose a substantial number of people to objectionable odors. Therefore, *Less Than Significant Impacts* related to this Checklist Item will occur.

GREENHOUSE GAS IMPACTS

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

Project Impact Analysis: *Less Than Significant Impact*

The Air District has determined that projects consistent with an adopted Climate Action Plan (CAP) would be considered to have a less than significant impact on the environment. The Tulare County CAP was initially adopted in August 2012 and serves as a guiding document for County actions to reduce GHG emissions and adapt to the potential effects of climate change. The CAP is an implementation measure of the Tulare County General Plan 2030 Update (General Plan) which provides the supporting framework for development in the County. The CAP builds on the General Plan's framework with more specific actions that will be applied to achieve emission reduction targets required by State of California legislation. The General Plan fulfills many sustainability and GHG reduction objectives at the program level. The CAP identifies the policies from the various General Plan elements that promote more efficient development, and reduce travel and energy consumption. The CAP requires projects achieve reductions in excess of the reduction identified in the Scoping Plan. The CAP identifies General Plan policies in place to assist the County in reducing GHG emissions. The 2018 CAP Update incorporates new baseline and future year inventories to reflect the latest information and updates the County's strategy to address the SB 32 2030 target. The CAP identifies the County's fair share of reductions required to maintain consistency with the State's target.

The CAP thresholds for determining consistency with the CAP are 500 dwelling units, 100,000 square feet of retail, or equivalent intensity for other uses. These thresholds are the amounts currently required from development related sources within the County to demonstrate consistency with SB 32 2030 targets. Projects exceeding the consistency thresholds must comply with the requirements of the CAP, which requires a GHG analysis report demonstrating emission reductions of at least 31% below 2015 levels by 2030 or a 9% reduction from 2030 BAU emissions. As the CAP implements the County's strategy to achieve the State's 2030 reduction targets, projects below the consistency thresholds have been determined to be consistent with the State's targets and do not require GHG emissions quantification. Projects below the consistency thresholds would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

Construction-related emissions have been estimated (CalEEMod, Version 2016.3.2), from the Deer Creek Solar Project and are used in this document by analogy as similar projects will likely result in similar GHG emissions. This Project is smaller than the comparative project (74% of the size) and will likely generate fewer emissions.

The Project will result in approximately 879 metric tons of GHG which will be generated only during construction-related activities (particularly, heavy-duty off road equipment). However, these emissions will be intermittent (i.e., varying times throughout the course of a day, varying

uses of construction-related equipment, varying duration of use by equipment type, etc.), temporary (i.e., only occurring during daylight hours), and short-term (lasting no longer than nine (9) months). GHG emissions also would be generated by construction-related worker-related daily commutes, by heavy-duty diesel tractor-trailer trucks that would be required to haul materials and debris to/from the proposed Project site, and as a result of water use for dust control and other construction-related activities. Once construction-related activities have ceased, operational emissions would be limited to infrequent vehicle-related emissions by maintenance staff and periodic PV panel washing. Decommissioning emissions are assumed to be the same as those from construction-related activities.

The electricity generated during the operation of the Project would be added to the power grid and displace electricity generated from fossil fuels. Displaced GHG emissions were calculated by using the average solar radiation hours per day and the current mix of power sources in California. Power sources other than coal and natural gas were not included. The operation of the proposed Project would displace approximately 81,205 metric tons of CO_{2e} per year and result in a net reduction of GHG emissions. This annual displacement in GHG emissions would result in an annual net GHG emissions of 79,439 metric tons of CO_{2e} per year, as shown in **Table 10**.

Table 10 Project GHG Emissions	
Project Phase	CO_{2e} (metric tons per year)
Construction	879
Operation	7
Decommissioning	879
Project Total	1,766
Annual Displacement	-81,205
Annual Net Emissions	-79,439
<i>Source: See attachment "A".</i>	

The methodology found in the SJVAPCD's Climate Change Action Plan was also used to determine the significance of impacts caused by GHG emissions from the Project. This methodology recommends projects be compared to a "business-as-usual" scenario, and that projects should be considered to not have a significant impact if it can be demonstrated to have a 29 percent reduction in GHG emissions from the "business-as-usual" scenario. The "business-as-usual" scenario for the Project assumes that the current electricity generation mix in California remains the same during the operational lifetime of the project (35 years) and that there would be no changes to the methods used to generate electricity in California. As described in **Table 10**, the proposed Project would result in an annual GHG emissions reduction of more than 38,320 metric tons CO_{2e} compared to the "business-as-usual scenario", a reduction of greater than 100 percent.

The Project will result in a benefit as it will reduce GHG emissions typically generated by other energy producers as this Project is a renewable energy project (solar). Overall, the GHG emissions generated during construction-related activities will be nullified when the Project is fully operational. As such, the Project would result in a ***Less Than Significant Impact*** to this resource.

Mitigation Measures: ***None Required***

Conclusion:

Less Than Significant Impact

As previously noted, the Project is consistent with the Tulare County CAP and assists in achieving the reduction targets established in the Scoping Plan. As such, the Project would not generate GHG emissions that would have a significant impact on the environment. ***Less Than Significant Impacts*** related to this Checklist Item will occur.

b) Would the project conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Impact Analysis:

Less Than Significant Impact

Since the proposed Project is located in an unincorporated area of Tulare County, the most applicable GHG plan is the Tulare County CAP, Executive Order S-3-05, Executive Order B-30-15, SB 350, SB 100, AB 32, and SB 32, including the potential for the Project to conflict with the recommended actions identified by CARB in its 2017 Climate Change Scoping Plan.

In April 2015, Governor Edmund G. Brown Jr. issued an executive order to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. Reaching this emission reduction target will make it possible for California to reach its ultimate goal of reducing emissions 80 percent under 1990 levels by 2050, as identified in Executive Order S-3-05. Executive Order B-30-15 also specifically addresses the need for climate adaptation and directs state government to:

- Incorporate climate change impacts into the State's Five-Year Infrastructure Plan;
- Update the Safeguarding California Plan, the State climate adaption strategy to identify how climate change will affect California infrastructure and industry and what actions the State can take to reduce the risks posed by climate change;
- Factor climate change into State agencies' planning and investment decisions; and
- Implement measures under existing agency and departmental authority to reduce GHG emissions.

On September 10, 2018, Governor Brown signed SB 100, establishing that 100 percent of all electricity in California must be obtained from renewable and zero-carbon energy resources by December 31, 2045. SB 100 also creates new standards for the Renewables Portfolio Standard (RPS) goals established by SB 350 in 2015. Specifically, the bill increases required energy from renewable sources for both investor-owned utilities and publicly-owned utilities from 50 percent to 60 percent by 2030. Incrementally, these energy providers must also have a renewable energy supply of 33 percent by 2020, 44 percent by 2024, and 52 percent by 2027. California must procure 100 percent of its energy from carbon free energy sources by the end of 2045. The updated RPS goals are considered achievable, since many California energy providers are already meeting or exceeding the RPS goals established by SB 350.

Executive Order B-30-15 required CARB to update the AB 32 Climate Change Scoping Plan to incorporate the 2030 target. Subsequently, SB 32, which codifies the Executive Order's 2030 emissions reduction target, was approved by the Governor on September 8, 2016. SB 32 requires CARB to adopt rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions to ensure that statewide GHG emissions are reduced to at least 40

percent below the 1990 statewide GHG emissions limit no later than December 31, 2030 (the target date established by Executive Order B-30-15. CARB recently adopted the 2017 Scoping Plan) to achieve this goal.

The CAP serves as a guiding document for County actions to reduce GHG emissions and adapt to the potential effects of climate change. The CAP requires projects on average achieve a reduction that is six percent in excess of the reductions stated in the ARB Scoping Plan and by regional regulations and programs. AB 32 requires the California Air Resources Board to design and implement feasible and cost-effective emissions limits, regulations, and other measures, such that statewide GHG emissions are reduced to 1990 levels by 2020 (representing a 25 percent reduction in emissions).

The Project involves the construction-, operation- and maintenance-, and decommissioning-related activities of a solar facility that would produce a new renewable source of energy in Tulare County. Therefore, the Project would directly support the renewable energy target under the 2017 Scoping Plan Update, and a goal of SB 100, for increasing California's procurement of electricity from renewable sources from 50 percent to 60 percent by 2030. As previously discussed, and through analogy of a similar project (see Attachment "A"), the proposed Project would result in a result in an annual GHG emissions reduction of more than 38,320 metric tons CO₂e compared to the "business-as-usual scenario" (a reduction of greater than 100 percent) and would be consistent with the Tulare County CAP, SB 32, SB 100, and AB 32. As such, the Project would result in no impact and provides a net, long-term benefit towards reducing GHG.

Therefore, the Project would not generate greenhouse gas emissions, either directly or indirectly that may have a significant impact on the environment.

Mitigation Measures: ***None Required***

Conclusion: ***Less Than Significant Impact***

As the proposed Project is consistent with aforementioned plans, policies, and regulations, ***Less Than Significant Impacts*** related to this Checklist Item would occur.

Attachment “A”

Project Emission Calculations

Deer Creek Project Equipment Hours (diesel fuel)

Phase	# equipment	hrs/day	days	total hours
Staging	1	7	5	35
	2	10	5	100
	1	7	5	35
	6	5	5	150
	8	5	5	200
	1	7	5	35
	1	7	5	35
	1	7	5	35
Site Grading	1	7	65	455
	3	2	65	390
	3	2	65	390
	1	7	65	455
	1	7	65	455
	1	7	65	455
	1	7	65	455
Access Road	1	8	65	520
	1	7	65	455
	1	7	65	455
Collection Line	2	2	47	188
	1	4	47	188
	1	7	47	329
	1	1	47	47
	2	2	47	188
	1	2	47	94
	3	7	47	987
Substation	2	4	60	480
	1	2	60	120
	1	4	60	240
	1	2	60	120
	1	2	60	120
	4	4	60	960
	4	2	60	480
Solar Array	5	4	152	3,040
	4	4	152	2,432
	7	4	152	4,256
	4	2	152	1,216
	8	3	152	3,648
	2	4	152	1,216
	1	1	152	152
	4	1	152	608
Total	95		329	26,219

Project Comparison

	Deer Creek	Angela	
Project Size (acres)	378	277	73%
Construction (months)	12	9	75%

Project Construction Criteria Pollutant Emissions (Tons Per Year)

		ROG	NOx	CO	SO2	Total PM10	Total PM2.5
Deer Creek	unmitigated	0.6798	7.6107	5.2542	0.0130	0.6877	0.4354
	mitigated	0.2192	4.6099	6.2030	0.0130	0.3948	0.1650
Angela	unmitigated	0.5099	5.7080	3.9407	0.0098	0.5158	0.3266
	mitigated	0.1644	3.4574	4.6523	0.0098	0.2961	0.1238

Project Operation Criteria Pollutant Emissions (Tons Per Year)

		ROG	NOx	CO	SO2	Total PM10	Total PM2.5
Deer Creek	unmitigated	0.0025	0.0075	0.0400	0.0001	0.0105	0.00286
	mitigated	0.0025	0.0075	0.0400	0.0001	0.0105	0.0029
Angela	unmitigated	0.0019	0.0056	0.0300	0.0001	0.0079	0.0021
	mitigated	0.0019	0.0056	0.0300	0.0001	0.0079	0.0021

DPM (PM10 Exhaust) Emissions Rate

		equip. hrs.	tons/yr	lb/yr	lb/hr
Deer Creek	unmitigated	26,219	0.3178	635.6000	0.0242
	mitigated	26,219	0.0249	49.8000	0.0019
Angela Solar	unmitigated	19,664	0.2384	476.7000	0.0242
	mitigated	19,664	0.0187	37.3500	0.0019

GHG (CO2e) Emissions (metric tons)

		Construction	Operation
Deer Creek	unmitigated	1172.3859	9.8341
	mitigated	1172.3850	9.8341
Angela Solar	unmitigated	879.2894	7.3756
	mitigated	879.2888	7.3756

Attachment “B”

Project Prioritization Screening

Name

Prioritization Calculator

Applicability Use to provide a Prioritization score based on the emission potency method. Entries required in yellow areas, output in gray areas.

Author or updater

Matthew Cegielski

Last Update

March 17, 2020

Facility:

Tulare County PSP 19-083 (mitigated)

ID#:

Project #:

Unit and Process#

Operating Hours hr/yr	19,664.00					
Receptor Proximity and Proximity Factors	Cancer	Chronic	Acute			
	Score	Score	Score	Max Score	Receptor proximity is in meters. Prioritization scores are calculated by multiplying the total scores summed below by the proximity factors. Record the Max score for your receptor distance. If the substance list for the unit is longer than the number of rows here or if there are multiple processes use additional worksheets and sum the totals of the Max Scores.	
0< R<100 1.000	8.63E+01	5.70E-02	0.00E+00	8.63E+01		
100≤R<250 0.250	2.16E+01	1.42E-02	0.00E+00	2.16E+01		
250≤R<500 0.040	3.45E+00	2.28E-03	0.00E+00	3.45E+00		
500≤R<1000 0.011	9.49E-01	6.27E-04	0.00E+00	9.49E-01		
1000≤R<1500 0.003	2.59E-01	1.71E-04	0.00E+00	2.59E-01		
1500≤R<2000 0.002	1.73E-01	1.14E-04	0.00E+00	1.73E-01		
2000<R 0.001	8.63E-02	5.70E-05	0.00E+00	8.63E-02		

Enter the unit's CAS# of the substances emitted and their amounts.

Prioritization score for each substance generated below. Totals on last row.

0							
Substance	CAS#	Annual Emissions (lbs/yr)	Maximum Hourly (lbs/hr)	Average Hourly (lbs/hr)	Cancer	Chronic	Acute
Diesel engine exhaust, particulate matter (Diesel PM)	9901	3.74E+01	1.90E-02	1.90E-03	8.63E+01	5.70E-02	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
Totals					8.63E+01	5.70E-02	0.00E+00

Name

Prioritization Calculator

Applicability Use to provide a Prioritization score based on the emission potency method. Entries required in yellow areas, output in gray areas.

Author or updater

Matthew Cegielski

Last Update

March 17, 2020

Facility:

Tulare County PSP 19-083 (unmitigated)

ID#:

Project #:

Unit and Process#

Operating Hours hr/yr	19,664.00					
Receptor Proximity and Proximity Factors	Cancer	Chronic	Acute			
	Score	Score	Score	Max Score	Receptor proximity is in meters. Prioritization scores are calculated by multiplying the total scores summed below by the proximity factors. Record the Max score for your receptor distance. If the substance list for the unit is longer than the number of rows here or if there are multiple processes use additional worksheets and sum the totals of the Max Scores.	
0< R<100 1.000	1.10E+03	7.27E-01	0.00E+00	1.10E+03		
100≤R<250 0.250	2.75E+02	1.82E-01	0.00E+00	2.75E+02		
250≤R<500 0.040	4.40E+01	2.91E-02	0.00E+00	4.40E+01		
500≤R<1000 0.011	1.21E+01	8.00E-03	0.00E+00	1.21E+01		
1000≤R<1500 0.003	3.30E+00	2.18E-03	0.00E+00	3.30E+00		
1500≤R<2000 0.002	2.20E+00	1.45E-03	0.00E+00	2.20E+00		
2000<R 0.001	1.10E+00	7.27E-04	0.00E+00	1.10E+00		

Enter the unit's CAS# of the substances emitted and their amounts.

Prioritization score for each substance generated below. Totals on last row.

0							
Substance	CAS#	Annual Emissions (lbs/yr)	Maximum Hourly (lbs/hr)	Average Hourly (lbs/hr)	Cancer	Chronic	Acute
Diesel engine exhaust, particulate matter (Diesel PM)	9901	4.77E+02	2.42E-02	2.42E-02	1.10E+03	7.27E-01	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
				0.00E+00	0.00E+00	0.00E+00	0.00E+00
Totals					1.10E+03	7.27E-01	0.00E+00

Attachment “C”

CalEEMod Report (Deer Creek Solar)

Deer Creek Solar - Tulare County, Annual

Deer Creek Solar
Tulare County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	378.00	User Defined Unit	378.00	0.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	51
Climate Zone	7			Operational Year	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Deer Creek Solar - Tulare County, Annual

Project Characteristics -

Land Use - Project site is 378 acres

Construction Phase - Assumed construction phasing is based on information provided by the applicant.

Off-road Equipment - Construction equipment provided by applicant.

Off-road Equipment -

Off-road Equipment - Construction equipment provided by applicant. Other Construction equipment is "Carts/ATVs".

Off-road Equipment - Just concrete truck deliveries

Off-road Equipment - Construction equipment provided by applicant.

Off-road Equipment - Construction equipment provided by applicant. Other Construction equipment is "Carts/ATVs". Tractors are assumed to support post drivers.

Off-road Equipment - Construction equipment provided by applicant. Other Construction equipment is "Carts/ATVs"

Off-road Equipment - Construction equipment provided by applicant.

Off-road Equipment - Just water tankers

Trips and VMT - Assumed work and haul trips based on information provided by the applicant. Aggregate trips based on 28,000 cy estimate.

Grading - Note that acres graded are default calculations based on equipment list and grading days. Refer to page 9 of CalEEMod Apx A.

Vehicle Trips - Assumes 5 workers to clean solar panels over 40 days 4 time per year or 1600 annual trips.

Construction Off-road Equipment Mitigation - Tier 4 engines as mitigation

Fleet Mix - Removed buses, MH, and HHD trucks from fleet mix for workers commuting to site and allocated those percentages as LDT1 (pick up trucks).

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	16.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	21.00

Deer Creek Solar - Tulare County, Annual

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	10.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	9.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
tblConstEquipMitigation	Tier	No Change	Tier 4 Interim
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tblConstructionPhase	NumDays	620.00	65.00
tblConstructionPhase	NumDays	440.00	65.00
tblConstructionPhase	NumDays	6,200.00	47.00
tblConstructionPhase	NumDays	6,200.00	60.00
tblConstructionPhase	NumDays	6,200.00	152.00
tblFleetMix	HHD	0.08	0.00

Deer Creek Solar - Tulare County, Annual

tblFleetMix	LDT1	0.03	0.12
tblFleetMix	MH	7.6100e-004	0.00
tblFleetMix	OBUS	1.8220e-003	0.00
tblFleetMix	SBUS	1.1320e-003	0.00
tblFleetMix	UBUS	1.3110e-003	0.00
tblLandUse	LotAcreage	0.00	378.00
tblOffRoadEquipment	HorsePower	367.00	80.00
tblOffRoadEquipment	LoadFactor	0.48	0.38
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	5.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

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tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	7.00	2.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	7.00	1.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripLength	20.00	15.00
tblTripsAndVMT	HaulingTripNumber	0.00	72.00
tblTripsAndVMT	HaulingTripNumber	0.00	50.00
tblTripsAndVMT	HaulingTripNumber	0.00	72.00
tblTripsAndVMT	HaulingTripNumber	0.00	3,506.00
tblTripsAndVMT	HaulingTripNumber	0.00	472.00
tblTripsAndVMT	HaulingTripNumber	0.00	2,288.00
tblTripsAndVMT	VendorTripNumber	0.00	40.00
tblTripsAndVMT	WorkerTripLength	16.80	17.50
tblTripsAndVMT	WorkerTripLength	16.80	17.50
tblTripsAndVMT	WorkerTripLength	16.80	17.50

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tblTripsAndVMT	WorkerTripLength	16.80	17.50
tblTripsAndVMT	WorkerTripLength	16.80	17.50
tblTripsAndVMT	WorkerTripLength	16.80	17.50
tblTripsAndVMT	WorkerTripNumber	53.00	25.00
tblTripsAndVMT	WorkerTripNumber	28.00	50.00
tblTripsAndVMT	WorkerTripNumber	8.00	23.00
tblTripsAndVMT	WorkerTripNumber	0.00	23.00
tblTripsAndVMT	WorkerTripNumber	0.00	23.00
tblTripsAndVMT	WorkerTripNumber	0.00	23.00
tblVehicleTrips	CC_TL	6.60	0.00
tblVehicleTrips	CNW_TL	6.60	0.00
tblVehicleTrips	CW_TL	14.70	17.50
tblVehicleTrips	CW_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	WD_TR	0.00	0.02

2.0 Emissions Summary

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2.1 Overall Construction**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.6798	7.6107	5.2542	0.0130	0.3699	0.3178	0.6877	0.1403	0.2951	0.4354	0.0000	1,166.4868	1,166.4868	0.2360	0.0000	1,172.3859
Maximum	0.6798	7.6107	5.2542	0.0130	0.3699	0.3178	0.6877	0.1403	0.2951	0.4354	0.0000	1,166.4868	1,166.4868	0.2360	0.0000	1,172.3859

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.2192	4.6099	6.2030	0.0130	0.3699	0.0249	0.3948	0.1403	0.0246	0.1650	0.0000	1,166.4859	1,166.4859	0.2360	0.0000	1,172.3850
Maximum	0.2192	4.6099	6.2030	0.0130	0.3699	0.0249	0.3948	0.1403	0.0246	0.1650	0.0000	1,166.4859	1,166.4859	0.2360	0.0000	1,172.3850

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	67.75	39.43	-18.06	0.00	0.00	92.16	42.59	0.00	91.65	62.11	0.00	0.00	0.00	0.00	0.00	0.00

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Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2020	3-31-2020	4.9475	2.6854
2	4-1-2020	6-30-2020	2.1450	1.3340
3	7-1-2020	9-30-2020	1.1265	0.7464
		Highest	4.9475	2.6854

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.3000e-004	3.0000e-005	3.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.7500e-003	6.7500e-003	2.0000e-005	0.0000	7.2000e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	2.1800e-003	7.4600e-003	0.0365	1.1000e-004	0.0104	9.0000e-005	0.0105	2.7700e-003	9.0000e-005	2.8500e-003	0.0000	9.8196	9.8196	2.9000e-004	0.0000	9.8269
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.5100e-003	7.4900e-003	0.0400	1.1000e-004	0.0104	1.0000e-004	0.0105	2.7700e-003	1.0000e-004	2.8600e-003	0.0000	9.8263	9.8263	3.1000e-004	0.0000	9.8341

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2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	3.3000e-004	3.0000e-005	3.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.7500e-003	6.7500e-003	2.0000e-005	0.0000	7.2000e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	2.1800e-003	7.4600e-003	0.0365	1.1000e-004	0.0104	9.0000e-005	0.0105	2.7700e-003	9.0000e-005	2.8500e-003	0.0000	9.8196	9.8196	2.9000e-004	0.0000	9.8269
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.5100e-003	7.4900e-003	0.0400	1.1000e-004	0.0104	1.0000e-004	0.0105	2.7700e-003	1.0000e-004	2.8600e-003	0.0000	9.8263	9.8263	3.1000e-004	0.0000	9.8341

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

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Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Staging	Site Preparation	1/1/2020	1/7/2020	5	5	
2	Site Grading	Grading	1/8/2020	4/7/2020	5	65	
3	Water Deliveries	Trenching	1/8/2020	10/27/2020	5	210	
4	Concrete Deliveries	Trenching	1/8/2020	10/27/2020	5	210	
5	Aggregate Delivery	Trenching	1/8/2020	4/7/2020	5	65	
6	Access Road Construction	Paving	1/8/2020	4/7/2020	5	65	
7	Collection Line Construction	Building Construction	1/14/2020	3/18/2020	5	47	
8	Substation Construction	Building Construction	1/14/2020	4/6/2020	5	60	
9	Solar Array Installation	Building Construction	1/21/2020	8/19/2020	5	152	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Staging	Forklifts	1	7.00	89	0.20
Staging	Generator Sets	2	10.00	84	0.74
Staging	Graders	1	7.00	187	0.41
Staging	Off-Highway Trucks	6	5.00	402	0.38
Staging	Other Construction Equipment	8	5.00	172	0.42
Staging	Rubber Tired Dozers	0	8.00	247	0.40
Staging	Scrapers	1	7.00	80	0.38

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Staging	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Staging	Trenchers	1	7.00	78	0.50
Water Deliveries	Aerial Lifts	0	1.00	63	0.31
Concrete Deliveries	Aerial Lifts	0	1.00	63	0.31
Site Grading	Excavators	0	8.00	158	0.38
Site Grading	Graders	1	7.00	187	0.41
Site Grading	Off-Highway Trucks	3	2.00	402	0.38
Site Grading	Other Construction Equipment	3	2.00	172	0.42
Site Grading	Rollers	1	7.00	80	0.38
Site Grading	Rubber Tired Dozers	1	7.00	247	0.40
Site Grading	Scrapers	1	7.00	367	0.48
Site Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Access Road Construction	Graders	1	8.00	187	0.41
Access Road Construction	Pavers	0	8.00	130	0.42
Access Road Construction	Paving Equipment	0	8.00	132	0.36
Access Road Construction	Rollers	1	7.00	80	0.38
Access Road Construction	Rubber Tired Dozers	1	7.00	247	0.40
Aggregate Delivery	Aerial Lifts	0	1.00	63	0.31
Collection Line Construction	Aerial Lifts	2	2.00	63	0.31
Collection Line Construction	Cranes	1	4.00	231	0.29
Collection Line Construction	Forklifts	1	7.00	89	0.20
Collection Line Construction	Generator Sets	1	1.00	84	0.74
Collection Line Construction	Off-Highway Trucks	2	2.00	402	0.38
Collection Line Construction	Other Construction Equipment	1	2.00	172	0.42
Collection Line Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Collection Line Construction	Welders	0	8.00	46	0.45
Substation Construction	Aerial Lifts	2	4.00	63	0.31

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Substation Construction	Cranes	1	2.00	231	0.29
Substation Construction	Forklifts	1	4.00	89	0.20
Substation Construction	Generator Sets	0	8.00	84	0.74
Substation Construction	Off-Highway Trucks	1	2.00	402	0.38
Substation Construction	Other Construction Equipment	1	2.00	172	0.42
Substation Construction	Tractors/Loaders/Backhoes	4	4.00	97	0.37
Substation Construction	Trenchers	4	2.00	78	0.50
Substation Construction	Welders	0	8.00	46	0.45
Solar Array Installation	Cranes	0	7.00	231	0.29
Solar Array Installation	Forklifts	5	4.00	89	0.20
Solar Array Installation	Generator Sets	4	4.00	84	0.74
Solar Array Installation	Off-Highway Tractors	7	4.00	124	0.44
Solar Array Installation	Off-Highway Trucks	4	2.00	402	0.38
Solar Array Installation	Other Construction Equipment	8	3.00	172	0.42
Solar Array Installation	Skid Steer Loaders	2	4.00	65	0.37
Solar Array Installation	Tractors/Loaders/Backhoes	1	1.00	97	0.37
Solar Array Installation	Trenchers	4	1.00	78	0.50
Solar Array Installation	Welders	0	8.00	46	0.45

Trips and VMT

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Staging	21	25.00	0.00	72.00	17.50	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Water Deliveries	0	0.00	40.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Concrete Deliveries	0	0.00	0.00	50.00	16.80	6.60	15.00	LD_Mix	HDT_Mix	HHDT
Site Grading	11	50.00	0.00	72.00	17.50	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Access Road Construction	3	23.00	0.00	0.00	17.50	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Aggregate Delivery	0	0.00	0.00	3,506.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Collection Line Construction	11	23.00	0.00	472.00	17.50	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Substation Construction	14	23.00	0.00	0.00	17.50	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Solar Array Installation	35	23.00	0.00	2,288.00	17.50	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Staging - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.4800e-003	0.0000	3.4800e-003	3.8000e-004	0.0000	3.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0184	0.1839	0.1326	2.8000e-004		9.0100e-003	9.0100e-003		8.3800e-003	8.3800e-003	0.0000	24.5267	24.5267	6.9900e-003	0.0000	24.7014
Total	0.0184	0.1839	0.1326	2.8000e-004	3.4800e-003	9.0100e-003	0.0125	3.8000e-004	8.3800e-003	8.7600e-003	0.0000	24.5267	24.5267	6.9900e-003	0.0000	24.7014

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3.2 Staging - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.9000e-004	0.0101	1.6700e-003	3.0000e-005	6.1000e-004	3.0000e-005	6.5000e-004	1.7000e-004	3.0000e-005	2.0000e-004	0.0000	2.7337	2.7337	9.0000e-005	0.0000	2.7360
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2000e-004	3.0000e-004	3.0000e-003	1.0000e-005	8.1000e-004	1.0000e-005	8.1000e-004	2.1000e-004	0.0000	2.2000e-004	0.0000	0.6851	0.6851	2.0000e-005	0.0000	0.6856
Total	7.1000e-004	0.0104	4.6700e-003	4.0000e-005	1.4200e-003	4.0000e-005	1.4600e-003	3.8000e-004	3.0000e-005	4.2000e-004	0.0000	3.4188	3.4188	1.1000e-004	0.0000	3.4216

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.4800e-003	0.0000	3.4800e-003	3.8000e-004	0.0000	3.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.4900e-003	0.0955	0.1752	2.8000e-004		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004	0.0000	24.5267	24.5267	6.9900e-003	0.0000	24.7014
Total	4.4900e-003	0.0955	0.1752	2.8000e-004	3.4800e-003	4.5000e-004	3.9300e-003	3.8000e-004	4.5000e-004	8.3000e-004	0.0000	24.5267	24.5267	6.9900e-003	0.0000	24.7014

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3.2 Staging - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.9000e-004	0.0101	1.6700e-003	3.0000e-005	6.1000e-004	3.0000e-005	6.5000e-004	1.7000e-004	3.0000e-005	2.0000e-004	0.0000	2.7337	2.7337	9.0000e-005	0.0000	2.7360
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2000e-004	3.0000e-004	3.0000e-003	1.0000e-005	8.1000e-004	1.0000e-005	8.1000e-004	2.1000e-004	0.0000	2.2000e-004	0.0000	0.6851	0.6851	2.0000e-005	0.0000	0.6856
Total	7.1000e-004	0.0104	4.6700e-003	4.0000e-005	1.4200e-003	4.0000e-005	1.4600e-003	3.8000e-004	3.0000e-005	4.2000e-004	0.0000	3.4188	3.4188	1.1000e-004	0.0000	3.4216

3.3 Site Grading - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2165	0.0000	0.2165	0.0990	0.0000	0.0990	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1126	1.2372	0.6932	1.5000e-003		0.0545	0.0545		0.0501	0.0501	0.0000	131.5994	131.5994	0.0426	0.0000	132.6634
Total	0.1126	1.2372	0.6932	1.5000e-003	0.2165	0.0545	0.2710	0.0990	0.0501	0.1491	0.0000	131.5994	131.5994	0.0426	0.0000	132.6634

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3.3 Site Grading - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.9000e-004	0.0101	1.6700e-003	3.0000e-005	6.1000e-004	3.0000e-005	6.5000e-004	1.7000e-004	3.0000e-005	2.0000e-004	0.0000	2.7337	2.7337	9.0000e-005	0.0000	2.7360
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0110	7.8600e-003	0.0780	2.0000e-004	0.0210	1.4000e-004	0.0211	5.5700e-003	1.3000e-004	5.7000e-003	0.0000	17.8122	17.8122	5.4000e-004	0.0000	17.8256
Total	0.0113	0.0179	0.0797	2.3000e-004	0.0216	1.7000e-004	0.0218	5.7400e-003	1.6000e-004	5.9000e-003	0.0000	20.5459	20.5459	6.3000e-004	0.0000	20.5616

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.2165	0.0000	0.2165	0.0990	0.0000	0.0990	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0249	0.4501	0.8672	1.5000e-003		2.4500e-003	2.4500e-003		2.4500e-003	2.4500e-003	0.0000	131.5992	131.5992	0.0426	0.0000	132.6633
Total	0.0249	0.4501	0.8672	1.5000e-003	0.2165	2.4500e-003	0.2189	0.0990	2.4500e-003	0.1015	0.0000	131.5992	131.5992	0.0426	0.0000	132.6633

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3.3 Site Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.9000e-004	0.0101	1.6700e-003	3.0000e-005	6.1000e-004	3.0000e-005	6.5000e-004	1.7000e-004	3.0000e-005	2.0000e-004	0.0000	2.7337	2.7337	9.0000e-005	0.0000	2.7360
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0110	7.8600e-003	0.0780	2.0000e-004	0.0210	1.4000e-004	0.0211	5.5700e-003	1.3000e-004	5.7000e-003	0.0000	17.8122	17.8122	5.4000e-004	0.0000	17.8256
Total	0.0113	0.0179	0.0797	2.3000e-004	0.0216	1.7000e-004	0.0218	5.7400e-003	1.6000e-004	5.9000e-003	0.0000	20.5459	20.5459	6.3000e-004	0.0000	20.5616

3.4 Water Deliveries - 2020

Unmitigated Construction On-Site

[illegible]

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3.4 Water Deliveries - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0157	0.4910	0.0972	1.1000e-003	0.0251	2.6400e-003	0.0278	7.2600e-003	2.5200e-003	9.7800e-003	0.0000	104.3454	104.3454	5.1400e-003	0.0000	104.4740
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0157	0.4910	0.0972	1.1000e-003	0.0251	2.6400e-003	0.0278	7.2600e-003	2.5200e-003	9.7800e-003	0.0000	104.3454	104.3454	5.1400e-003	0.0000	104.4740

Mitigated Construction On-Site

[illegible]

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3.4 Water Deliveries - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0157	0.4910	0.0972	1.1000e-003	0.0251	2.6400e-003	0.0278	7.2600e-003	2.5200e-003	9.7800e-003	0.0000	104.3454	104.3454	5.1400e-003	0.0000	104.4740
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0157	0.4910	0.0972	1.1000e-003	0.0251	2.6400e-003	0.0278	7.2600e-003	2.5200e-003	9.7800e-003	0.0000	104.3454	104.3454	5.1400e-003	0.0000	104.4740

3.5 Concrete Deliveries - 2020

Unmitigated Construction On-Site

[illegible]

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3.5 Concrete Deliveries - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6000e-004	5.8700e-003	9.4000e-004	2.0000e-005	3.2000e-004	2.0000e-005	3.4000e-004	9.0000e-005	2.0000e-005	1.1000e-004	0.0000	1.4969	1.4969	6.0000e-005	0.0000	1.4984
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.6000e-004	5.8700e-003	9.4000e-004	2.0000e-005	3.2000e-004	2.0000e-005	3.4000e-004	9.0000e-005	2.0000e-005	1.1000e-004	0.0000	1.4969	1.4969	6.0000e-005	0.0000	1.4984

Mitigated Construction On-Site

[illegible]

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3.5 Concrete Deliveries - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.6000e-004	5.8700e-003	9.4000e-004	2.0000e-005	3.2000e-004	2.0000e-005	3.4000e-004	9.0000e-005	2.0000e-005	1.1000e-004	0.0000	1.4969	1.4969	6.0000e-005	0.0000	1.4984
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.6000e-004	5.8700e-003	9.4000e-004	2.0000e-005	3.2000e-004	2.0000e-005	3.4000e-004	9.0000e-005	2.0000e-005	1.1000e-004	0.0000	1.4969	1.4969	6.0000e-005	0.0000	1.4984

3.6 Aggregate Delivery - 2020

Unmitigated Construction On-Site

[illegible]

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3.6 Aggregate Delivery - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0141	0.4898	0.0812	1.4000e-003	0.0299	1.6900e-003	0.0316	8.2200e-003	1.6200e-003	9.8400e-003	0.0000	133.1151	133.1151	4.4700e-003	0.0000	133.2269
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0141	0.4898	0.0812	1.4000e-003	0.0299	1.6900e-003	0.0316	8.2200e-003	1.6200e-003	9.8400e-003	0.0000	133.1151	133.1151	4.4700e-003	0.0000	133.2269

Mitigated Construction On-Site

[illegible]

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3.6 Aggregate Delivery - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0141	0.4898	0.0812	1.4000e-003	0.0299	1.6900e-003	0.0316	8.2200e-003	1.6200e-003	9.8400e-003	0.0000	133.1151	133.1151	4.4700e-003	0.0000	133.2269
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0141	0.4898	0.0812	1.4000e-003	0.0299	1.6900e-003	0.0316	8.2200e-003	1.6200e-003	9.8400e-003	0.0000	133.1151	133.1151	4.4700e-003	0.0000	133.2269

3.7 Access Road Construction - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0521	0.5870	0.2303	5.3000e-004		0.0261	0.0261		0.0240	0.0240	0.0000	46.8479	46.8479	0.0152	0.0000	47.2267
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0521	0.5870	0.2303	5.3000e-004		0.0261	0.0261		0.0240	0.0240	0.0000	46.8479	46.8479	0.0152	0.0000	47.2267

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3.7 Access Road Construction - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0500e-003	3.6200e-003	0.0359	9.0000e-005	9.6400e-003	6.0000e-005	9.7100e-003	2.5600e-003	6.0000e-005	2.6200e-003	0.0000	8.1936	8.1936	2.5000e-004	0.0000	8.1998
Total	5.0500e-003	3.6200e-003	0.0359	9.0000e-005	9.6400e-003	6.0000e-005	9.7100e-003	2.5600e-003	6.0000e-005	2.6200e-003	0.0000	8.1936	8.1936	2.5000e-004	0.0000	8.1998

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.1600e-003	0.1532	0.2995	5.3000e-004		8.7000e-004	8.7000e-004		8.7000e-004	8.7000e-004	0.0000	46.8478	46.8478	0.0152	0.0000	47.2266
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	9.1600e-003	0.1532	0.2995	5.3000e-004		8.7000e-004	8.7000e-004		8.7000e-004	8.7000e-004	0.0000	46.8478	46.8478	0.0152	0.0000	47.2266

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3.7 Access Road Construction - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0500e-003	3.6200e-003	0.0359	9.0000e-005	9.6400e-003	6.0000e-005	9.7100e-003	2.5600e-003	6.0000e-005	2.6200e-003	0.0000	8.1936	8.1936	2.5000e-004	0.0000	8.1998
Total	5.0500e-003	3.6200e-003	0.0359	9.0000e-005	9.6400e-003	6.0000e-005	9.7100e-003	2.5600e-003	6.0000e-005	2.6200e-003	0.0000	8.1936	8.1936	2.5000e-004	0.0000	8.1998

3.8 Collection Line Construction - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0335	0.3427	0.2825	5.2000e-004		0.0179	0.0179		0.0165	0.0165	0.0000	45.7639	45.7639	0.0144	0.0000	46.1228
Total	0.0335	0.3427	0.2825	5.2000e-004		0.0179	0.0179		0.0165	0.0165	0.0000	45.7639	45.7639	0.0144	0.0000	46.1228

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3.8 Collection Line Construction - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9000e-003	0.0659	0.0109	1.9000e-004	4.0300e-003	2.3000e-004	4.2500e-003	1.1100e-003	2.2000e-004	1.3200e-003	0.0000	17.9208	17.9208	6.0000e-004	0.0000	17.9359
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6500e-003	2.6200e-003	0.0260	7.0000e-005	6.9700e-003	5.0000e-005	7.0200e-003	1.8500e-003	4.0000e-005	1.9000e-003	0.0000	5.9246	5.9246	1.8000e-004	0.0000	5.9291
Total	5.5500e-003	0.0686	0.0369	2.6000e-004	0.0110	2.8000e-004	0.0113	2.9600e-003	2.6000e-004	3.2200e-003	0.0000	23.8454	23.8454	7.8000e-004	0.0000	23.8649

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.9400e-003	0.1902	0.3414	5.2000e-004		1.2700e-003	1.2700e-003		1.2700e-003	1.2700e-003	0.0000	45.7638	45.7638	0.0144	0.0000	46.1228
Total	9.9400e-003	0.1902	0.3414	5.2000e-004		1.2700e-003	1.2700e-003		1.2700e-003	1.2700e-003	0.0000	45.7638	45.7638	0.0144	0.0000	46.1228

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3.8 Collection Line Construction - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9000e-003	0.0659	0.0109	1.9000e-004	4.0300e-003	2.3000e-004	4.2500e-003	1.1100e-003	2.2000e-004	1.3200e-003	0.0000	17.9208	17.9208	6.0000e-004	0.0000	17.9359
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6500e-003	2.6200e-003	0.0260	7.0000e-005	6.9700e-003	5.0000e-005	7.0200e-003	1.8500e-003	4.0000e-005	1.9000e-003	0.0000	5.9246	5.9246	1.8000e-004	0.0000	5.9291
Total	5.5500e-003	0.0686	0.0369	2.6000e-004	0.0110	2.8000e-004	0.0113	2.9600e-003	2.6000e-004	3.2200e-003	0.0000	23.8454	23.8454	7.8000e-004	0.0000	23.8649

3.9 Substation Construction - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0406	0.4061	0.3418	5.5000e-004		0.0239	0.0239		0.0220	0.0220	0.0000	48.2814	48.2814	0.0156	0.0000	48.6718
Total	0.0406	0.4061	0.3418	5.5000e-004		0.0239	0.0239		0.0220	0.0220	0.0000	48.2814	48.2814	0.0156	0.0000	48.6718

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3.9 Substation Construction - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6600e-003	3.3400e-003	0.0331	8.0000e-005	8.9000e-003	6.0000e-005	8.9600e-003	2.3700e-003	5.0000e-005	2.4200e-003	0.0000	7.5634	7.5634	2.3000e-004	0.0000	7.5690
Total	4.6600e-003	3.3400e-003	0.0331	8.0000e-005	8.9000e-003	6.0000e-005	8.9600e-003	2.3700e-003	5.0000e-005	2.4200e-003	0.0000	7.5634	7.5634	2.3000e-004	0.0000	7.5690

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0111	0.2219	0.3835	5.5000e-004		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003	0.0000	48.2814	48.2814	0.0156	0.0000	48.6717
Total	0.0111	0.2219	0.3835	5.5000e-004		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003	0.0000	48.2814	48.2814	0.0156	0.0000	48.6717

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3.9 Substation Construction - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.6600e-003	3.3400e-003	0.0331	8.0000e-005	8.9000e-003	6.0000e-005	8.9600e-003	2.3700e-003	5.0000e-005	2.4200e-003	0.0000	7.5634	7.5634	2.3000e-004	0.0000	7.5690
Total	4.6600e-003	3.3400e-003	0.0331	8.0000e-005	8.9000e-003	6.0000e-005	8.9600e-003	2.3700e-003	5.0000e-005	2.4200e-003	0.0000	7.5634	7.5634	2.3000e-004	0.0000	7.5690

3.10 Solar Array Installation - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3444	3.4352	3.0673	5.2700e-003		0.1802	0.1802		0.1682	0.1682	0.0000	460.9123	460.9123	0.1261	0.0000	464.0653
Total	0.3444	3.4352	3.0673	5.2700e-003		0.1802	0.1802		0.1682	0.1682	0.0000	460.9123	460.9123	0.1261	0.0000	464.0653

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3.10 Solar Array Installation - 2020**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.2000e-003	0.3196	0.0530	9.1000e-004	0.0195	1.1000e-003	0.0206	5.3700e-003	1.0600e-003	6.4200e-003	0.0000	86.8703	86.8703	2.9200e-003	0.0000	86.9433
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0118	8.4600e-003	0.0839	2.1000e-004	0.0226	1.5000e-004	0.0227	5.9900e-003	1.4000e-004	6.1300e-003	0.0000	19.1605	19.1605	5.8000e-004	0.0000	19.1749
Total	0.0210	0.3281	0.1369	1.1200e-003	0.0421	1.2500e-003	0.0433	0.0114	1.2000e-003	0.0126	0.0000	106.0308	106.0308	3.5000e-003	0.0000	106.1182

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0815	2.0804	3.6298	5.2700e-003		0.0117	0.0117		0.0117	0.0117	0.0000	460.9117	460.9117	0.1261	0.0000	464.0647
Total	0.0815	2.0804	3.6298	5.2700e-003		0.0117	0.0117		0.0117	0.0117	0.0000	460.9117	460.9117	0.1261	0.0000	464.0647

Deer Creek Solar - Tulare County, Annual

3.10 Solar Array Installation - 2020**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.2000e-003	0.3196	0.0530	9.1000e-004	0.0195	1.1000e-003	0.0206	5.3700e-003	1.0600e-003	6.4200e-003	0.0000	86.8703	86.8703	2.9200e-003	0.0000	86.9433
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0118	8.4600e-003	0.0839	2.1000e-004	0.0226	1.5000e-004	0.0227	5.9900e-003	1.4000e-004	6.1300e-003	0.0000	19.1605	19.1605	5.8000e-004	0.0000	19.1749
Total	0.0210	0.3281	0.1369	1.1200e-003	0.0421	1.2500e-003	0.0433	0.0114	1.2000e-003	0.0126	0.0000	106.0308	106.0308	3.5000e-003	0.0000	106.1182

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.1800e-003	7.4600e-003	0.0365	1.1000e-004	0.0104	9.0000e-005	0.0105	2.7700e-003	9.0000e-005	2.8500e-003	0.0000	9.8196	9.8196	2.9000e-004	0.0000	9.8269
Unmitigated	2.1800e-003	7.4600e-003	0.0365	1.1000e-004	0.0104	9.0000e-005	0.0105	2.7700e-003	9.0000e-005	2.8500e-003	0.0000	9.8196	9.8196	2.9000e-004	0.0000	9.8269

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	6.12	0.00	0.00	27,862	27,862
Total	6.12	0.00	0.00	27,862	27,862

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	17.50	0.00	0.00	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.516727	0.116777	0.172440	0.141085	0.022326	0.005434	0.020884	0.000000	0.000000	0.000000	0.004327	0.000000	0.000000

5.0 Energy Detail

Historical Energy Use: N

Deer Creek Solar - Tulare County, Annual

5.1 Mitigation Measures Energy

[illegible]

5.2 Energy by Land Use - NaturalGas

Unmitigated

[illegible]

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5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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5.3 Energy by Land Use - Electricity**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.3000e-004	3.0000e-005	3.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.7500e-003	6.7500e-003	2.0000e-005	0.0000	7.2000e-003
Unmitigated	3.3000e-004	3.0000e-005	3.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.7500e-003	6.7500e-003	2.0000e-005	0.0000	7.2000e-003

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6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.3000e-004	3.0000e-005	3.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.7500e-003	6.7500e-003	2.0000e-005	0.0000	7.2000e-003
Total	3.3000e-004	3.0000e-005	3.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.7500e-003	6.7500e-003	2.0000e-005	0.0000	7.2000e-003

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.3000e-004	3.0000e-005	3.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.7500e-003	6.7500e-003	2.0000e-005	0.0000	7.2000e-003
Total	3.3000e-004	3.0000e-005	3.4900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	6.7500e-003	6.7500e-003	2.0000e-005	0.0000	7.2000e-003

7.0 Water Detail

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7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail**8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

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8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Attachment “B”

Biological Resources Technical Memorandum



RESOURCE MANAGEMENT AGENCY

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VISALIA, CA 93277
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Aaron R. Bock Economic Development and Planning
Reed Schenke Public Works
Sherman Dix Fiscal Services

INTRAOFFICE MEMORANDUM

DATE: May 19, 2020

TO: Hector Guerra, Chief Environmental Planner

FROM: Jessica Willis, Planner IV

SUBJECT: Biological Resources Evaluation for Angela Solar (PSP 19-083)

PROJECT DESCRIPTION

The Project is located on a ± 277 -acre site and consists of a solar facility that would provide approximately 40 megawatts (MW) of electricity (renewable energy). Project components include: solar (photo-voltaic, PV) modules mounted on single access trackers; associated motors, torque tubes, and drivelines for the single-axis tracking system; eleven (11) inverter stations; various wiring, underground cables, combiner boxes, inverters, and transformers; a new, on-site substation tying into a new mile-long 138-kV transmission interconnection line with the nearby Pacific Gas and Electric (PG&E) Olive substation; access and internal roads; security fencing; and, if applicable, motion activated lighting. Following its proposed 35-year life, the facility would be decommissioned and the site reclaimed as required by the County.

PROJECT LOCATION

The Project is located on two noncontiguous sites along Avenue 42 approximately two miles southeast of the unincorporated community of Alpaugh and three miles west of the unincorporated community of Allensworth, within Tulare County, California (see Attachment A). State Route 43 lies approximately three (3) miles east of the Project site.

USGS 7.5-minute Quadrangle: Allensworth

Assessor Parcel Number(s): 330-100-026, 045, 046 & 330-110-007, 013 & 330-130-005, 006, 007, 031 (See Attachment B)

Surrounding Quadrangles: (Tulare County) Hacienda Ranch, Hacienda Ranch NE, Alpaugh, Pixley, Delano West, and (Kern County) Pond, Wasco NW, and Lost Hills NE (see Attachment C)

Public Land Survey System: Sections 2, 3 & 10, Township 24 South, Range 23 East, Mount Diablo Base and Meridian

Latitude/Longitude: 35° 51' 56.97" N / 119° 27' 54.76" W (at the end of Avenue 42 at the irrigation canal)

35° 52' 09.94" N / 119° 27' 37.60" W (at the intersection of Olive Street and Road 50)

CNDDDB/BIOS EVALUATION

The most recent California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDDB), RareFind 5 and Biogeographic Information and Observation System (BIOS) mapping applications were accessed on May 13, 2020, and May 18, 2020.¹

Based on the information in the CNDDDB and BIOS, there are 45 special status species and 4 natural communities recorded within the 9-quadrangle Project area (see Attachment H). These species include: 18 plant species; 1 invertebrate species; 4 insect species; 1 amphibian species, 4 reptile species; 10 bird species; and 7 mammal species.

Based on the information in the CNDDDB and BIOS, there are 14 special status species and 2 natural communities recorded within the Allensworth quadrangle (see Attachment G). These species include: 4 plant species; 1 amphibian species, 3 reptile species; 2 bird species; and 4 mammal species.

Based on the information in the CNDDDB and BIOS, there are 8 special status species recorded within two miles of the Project site (see Attachment E). These species include: 1 plant species; 1 reptile species; 4 bird species; and 2 mammal species. These species are identified as: *Atriplex cordulata* var. *erecticaulis* (Earlimart orache); *Gambelia sila* (blunt-nosed leopard lizard); *Charadrius alexandrinus nivosus* (western snowy plover); *Buteo swainsoni* (Swainson's hawk); *Agelaius tricolor* (tricolored blackbird); *Athene cunicularia* (burrowing owl); *Vulpes macrotis mutica* (San Joaquin kit fox); and *Perognathus inornatus* (San Joaquin Pocket Mouse) (see Attachment F). However, only one special status species, the San Joaquin kit fox, has been recorded within the Project site and adjacent parcels (see Attachment D).

Pre-construction Surveys

To ensure the Project will have a less than significant impact on special status species within the Project area, the following mitigations measure requiring pre-construction surveys will be implemented.

BIO-1: (***Pre-construction Survey – Plant Species***) A qualified biologist/botanist shall conduct pre-construction surveys for special status plant species in accordance with the California Department of Fish and Wildlife (CDFW) *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (2009). This protocol includes identification of reference populations to facilitate the likelihood of field investigation occurring during the appropriate floristic period. Surveys should be timed to coincide with flowering periods for species that could occur (March-May). In the absence of protocol-level surveys being performed, additional surveys may be necessary.

- If special status plant species are not identified during pre-construction surveys, no further action is required.
- If special status plant species are detected during pre-construction surveys, the biologist/botanist will supervise establishment of a minimum 50-foot no disturbance buffer from the outer edge of the plant population. If buffers cannot

¹ CDFW. <https://wildlife.ca.gov/Data/CNDDDB/Maps-and-Data>

be maintained, the Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW shall be contacted immediately to identify the appropriate minimization actions to be taken as appropriate for the species identified and to determine incidental take permitting needs.

BIO-2: (***Pre-construction Survey – Animal Species***) A qualified biologist will conduct pre-construction surveys during the appropriate periods for special status animal species in accordance with the CDFW guidance and recommendations identified below. In the absence of protocol-level surveys being performed, additional surveys may be necessary. If special status animal species are not identified during pre-construction surveys, no further action is required. If special status animal species are detected during pre-construction surveys, the Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW shall be contacted immediately to identify the appropriate avoidance and minimization actions to be taken as applicable for the species identified and to determine incidental take permitting needs.

- (***San Joaquin kit fox***) Pre-construction surveys shall be conducted no less than 14 days and no more than 30 days prior to the beginning of ground disturbance, construction activities, and/or any project activity likely to impact the San Joaquin kit fox. These surveys will be conducted in accordance with the USFWS *Standard Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance* (2011). The survey will include the project site and where accessible, a minimum of a 200-foot area outside of project impact areas. The primary objective is to identify kit fox habitat features (e.g. potential dens and refugia) on the project site and evaluate their use by kit fox through the use of remote monitoring techniques such as motion-triggered cameras and tracking medium. If potential dens are not identified, no further action is required.
- (***Nesting Raptors and Migratory Birds, including loggerhead shrike and tricolor blackbird***) If Project activities must occur during the nesting season (February 1-August 31), the project proponent and/or their contractor is responsible for ensuring that implementation does not violate the Migratory Bird Treaty Act or relevant Fish and Game Code. A qualified biologist shall conduct pre-construction surveys for active bird nests within 10 days of the onset of these activities. Nest surveys will include all accessible areas on the project site and within 250 feet of the site for tricolored blackbird, loggerhead shrike and other migratory birds, and within 500 feet for all nesting raptors and migratory birds; with the exception of Swainson's hawk. The Swainson's hawk survey will utilize the Swainson's Hawk Technical Advisory Committee *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley* (2000) methodology and will extend to ½-mile outside of work area boundaries. Inaccessible areas will be scanned with binoculars or spotting scope, as appropriate. If no nesting pairs are found within the survey area, no further mitigation is required.
- (***Burrowing Owl***) A qualified biologist shall conduct pre-construction surveys for burrowing owls burrows within 10 days of the onset of project-related construction activities. The survey will utilize the California Burrowing Owl Consortium's *Burrowing Owl Survey Protocol and Mitigation Guidelines* (1993) methodology. The survey will include all accessible areas of suitable

habitat within the proposed project site and within 500 feet of project impact areas. If no burrowing owls are identified within the survey area, no further mitigation is required.

- **(Blunt-Nosed Leopard Lizard)** A qualified biologist shall conduct a pre-construction survey to determine if suitable habitat for blunt-nosed leopard exists on the project site within 30 days of the onset of project-related construction activities. If suitable habitat is identified, the qualified biologist shall conduct further surveys utilizing the CDFW *Approved Survey Methodology for the Blunt-Nosed Leopard Lizard* (2019) methodology. If no blunt-nosed leopard lizards are identified within the survey area, no further mitigation is required.

Measures to be Implemented if Special Status Species are Identified

To ensure the Project will have a less than significant impact on special status species within the Project area, the following mitigations measures will be implemented if special status species are identified during pre-construction surveys.

All Identified Special Status Species

- BIO-3: **(Employee Education Program)** Prior to the start of construction or decommissioning, the applicant shall retain a qualified biologist/botanist to conduct a tailgate meeting to train all construction staff that will be involved with the project on the special status species that occur, or may occur, on the project site. This training will include a description of the species and its habitat needs; a report of the occurrence of the species in the project area; an explanation of the status of the species and its protection under the Endangered Species Act; and a list of the measures being taken to reduce impacts to the species during project construction and implementation.

San Joaquin Kit Fox

- BIO-4: **(Avoidance)** Should an active or potential kit fox den be detected within or immediately adjacent to the area of work during pre-construction surveys, the den shall not be disturbed or destroyed. In accordance with the USFWS, *Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance* (2011), a minimum 50-foot no-disturbance buffer area shall be established around potential and man-made (atypical) dens and a minimum 100-foot no-disturbance buffer area shall be established around known den sites. The Sacramento Field Office of the USFWS and Fresno Field Office of the CDFW shall be contacted immediately by phone and in writing to determine the best course of action and if required, to initiate the take authorization/permit process.
- BIO-5: **(Minimization)** Construction activities shall be carried out in a manner that minimizes disturbance to kit fox. Minimization measures include, but are not limited to: restriction of project-related vehicle traffic to established roads, construction areas, and other designated areas; inspection and covering of structures (e.g., pipes), as well as installation of escape structures, to prevent the inadvertent entrapment of

kit foxes; restriction of rodenticide and herbicide use; and proper disposal of food items and trash.

- BIO-6: (**Mortality Reporting**) The Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW will be contacted immediately by phone and in writing within three days in the event of accidental death or injury of a San Joaquin kit fox during project-related activities. Notification must include the date, time, location of the incident or of the finding of a dead or injured animal, and any other pertinent information.

Nesting Raptors and Migratory Birds (including Loggerhead Shrike and Tricolored Blackbird)

- BIO-7: (**Avoidance**) In order to avoid impacts to nesting birds, construction will occur, where possible, outside the nesting season (between September 1st and January 31st).
- BIO-8: (**Buffers**) If active nests are found within the survey areas a qualified biologist will establish appropriate no-disturbance buffers based on species tolerance of human disturbance (for example, for tricolored blackbird, no less than 60 feet), baseline levels of disturbance, and barriers that may separate the nest from construction disturbance. These buffers will remain in place until the breeding season has ended or until the qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival.
- BIO-9: (**Mortality Reporting**) The Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW will be contacted immediately by phone and in writing within three days in the event of accidental death or injury of a special status bird species during project-related activities. Notification must include the date, time, location of the incident or of the finding of a dead or injured animal, and any other pertinent information.

Burrowing Owl

- BIO-10: (**Avoidance**) In order to avoid impacts to occupied burrows, individual areas within the Project site will be constructed, where possible, outside the nesting season (between September 1st and January 31st).
- BIO-11: (**Buffers**) If pre-construction surveys and subsequent project activities are undertaken during the breeding season (February 1-August 31) and active nest burrows are located within or near project impact areas, a minimum 250-foot construction setback will be established around active owl nests, or alternate avoidance measures implemented in consultation with CDFW and in accordance with the CDFW *Staff Report on Burrowing Owl Mitigation* (2012) to employ the following:

Location	Time of Year	Level of Disturbance		
		Low	Medium	High
Nesting sites	Apr 1 – Aug 15	200 m	500 m	500 m
Nesting sites	Aug 16 – Oct 15	200 m	200 m	500 m
Nesting sites	Oct 16 – Mar 31	50 m	100 m	500 m

The buffer areas will be enclosed with temporary fencing to prevent construction equipment and workers from entering the setback area. Buffers will remain in place for the duration of the breeding season, unless otherwise arranged with CDFW. After the breeding season (i.e. once all young have left the nest), passive relocation of any remaining owls may take place as described below.

BIO-12: (***Passive Relocation of Resident Owls***). During the non-breeding season (September 1-January 31), resident owls occupying burrows in project impact areas may be passively relocated to alternative habitat in accordance with a relocation plan prepared by a qualified biologist. Passive relocation may include one or more of the following elements: 1) establishing a minimum 50 foot buffer around all active burrowing owl burrows, 2) removing all suitable burrows outside the 50 foot buffer and up to 160 feet outside of the impact areas as necessary, 3) installing one-way doors on all potential owl burrows within the 50 foot buffer, 4) leaving one-way doors in place for 48 hours to ensure owls have vacated the burrows, and 5) removing the doors and excavating the remaining burrows within the 50 foot buffer. Burrow exclusion is to be conducted by a qualified biologist and during non-breeding season after the burrow is confirmed empty through surveillance. Surveillance for exclusion through project site activities are to be conducted consistent with any relocation plans.

BIO-13: (***Mortality Reporting***) The Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW will be contacted immediately by phone and in writing within three days in the event of accidental death or injury of a burrowing owl during project-related activities. Notification must include the date, time, location of the incident or of the finding of a dead or injured animal, and any other pertinent information.

Blunt Nosed-Leopard Lizard

BIO-14: (***Avoidance and Minimization***) Construction activities shall be carried out in a manner that minimizes disturbance to blunt-nosed leopard lizard. If blunt-nosed leopard lizard are detected during pre-construction surveys, prior to the onset of project-related construction activities the Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW shall be contacted to determine the best course of action and if required, to initiate the take authorization/permit process.

BIO-15: (***Mortality Reporting***) The Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW will be contacted immediately by phone and in writing within three days in the event of accidental death or injury of a blunt-nosed leopard lizard during project-related activities. Notification must include the date, time, location of the incident or of the finding of a dead or injured animal, and any other pertinent information.

WATERS OF THE STATE AND U.S.

Alpaugh Irrigation District canals are located adjacent to the Project site along the eastern boundary of the western half of the Project site and along the northern boundary of the eastern

half of the Project site (see Attachments B and D). Based on the BIOS map, these canals are jurisdictional waters of the State (see Attachment E); however, these canals are adjacent to the site and jurisdictional waters are absent from the site itself.

The most recent United States Geological Survey (USGS) National Water Information System (NWIS) mapping application was accessed on May 19, 2020.² Based on the information provided in the NWIS, the nearest jurisdictional bodies of water lie approximately 0.9 miles southwest and approximately 0.5 miles directly south of the Project site (see Attachment I).

The most recent United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) mapping application was accessed on May 19, 2020.³ Based on the information provided in the NWI, there are three (3) categories of wetlands in the Project vicinity. There are two (2) Freshwater Emergent Wetlands and one (1) Freshwater Pond on the parcel immediately south of the Project site, and the Alpaugh Irrigation District canals adjacent to the Project site are classified as Riverine. Jurisdictional waters are absent from the site itself (see Attachment J).

As demonstrated in the BIOS, NWIS, and NWI maps, jurisdictional waters of the State and U.S. are absent from the Project site. Best management practices, including compliance with all applicable Regional Water Quality Control Board (RWQCB) requirements, which includes a storm water pollution prevention plan (SWPPP), will be required during construction activities and will be included as a condition of project approval. A grading and drainage plan will be submitted and approved by the Tulare County RMA Engineering Branch. As such, the Project will not result in significant impact to any riparian habitats or other protected wetlands. Therefore, mitigation measures that would reduce impacts have not been proposed, nor would any measures be warranted.

SUMMARY AND CONCLUSION

One (1) special status species, the San Joaquin kit fox, has been recorded within the Project site and the immediate vicinity (i.e., the parcels adjacent to the site); seven (7) special status species have been recorded within two (2) miles of the Project site. As such, Mitigation Measures BIO-1 and BIO-2, which require pre-construction surveys for special status plant and animals species, respectively, will be implemented prior to the onset of project-related activities. If no special status species are identified within the Project site during pre-construction surveys, no further action would be required; however, in the event that special status species are identified, Mitigation Measures BIO-3 through BIO-15 would be implemented as appropriate and in consultation with the CDFW and/or USFWS. Specifically, Mitigation Measure BIO-3 would apply to all identified special status species; Mitigation Measures BIO-4 through BIO-6 would apply to San Joaquin kit fox; Mitigation Measures BIO-7 through BIO-9 would apply to nesting raptors and migratory birds, including loggerhead shrike and tricolored blackbird; Mitigation Measures BIO-10 through BIO-13 would apply to burrowing owl; and Mitigation Measures BIO-14 and BIO-15 would apply to blunt-nosed leopard lizard. With implementation of Mitigation Measures BIO-1 through BIO-15, impacts to special status plant and animal species will be Less Than Significant with Mitigation.

² USGS. <https://maps.waterdata.usgs.gov/mapper/index.html>

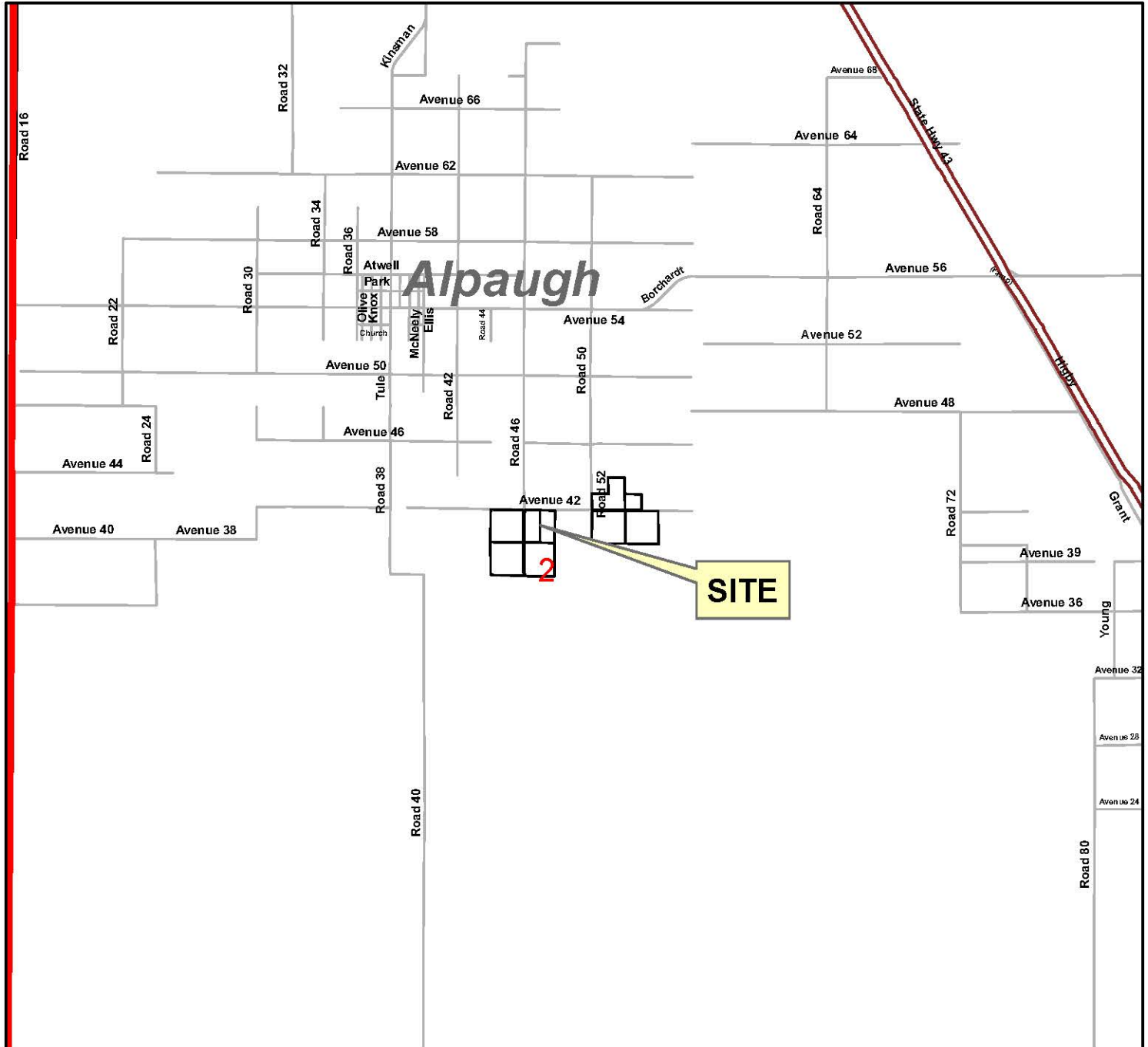
³ USFWS. <https://www.fws.gov/wetlands/data/mapper.HTML>

No riparian habitats or other protected wetlands are located within the Project site. With implementation of a condition of approval requiring compliance with applicable RWQCB requirements, including best management practices and submittal of a SWPPP, and submittal of a grading and drainage plan to the Tulare County RMA Engineering Branch, impacts to adjacent and nearby wetlands will be Less Than Significant.

Attachment A
Project Vicinity



Vicinity Map for PSP 19-083



Supervisory District: 2

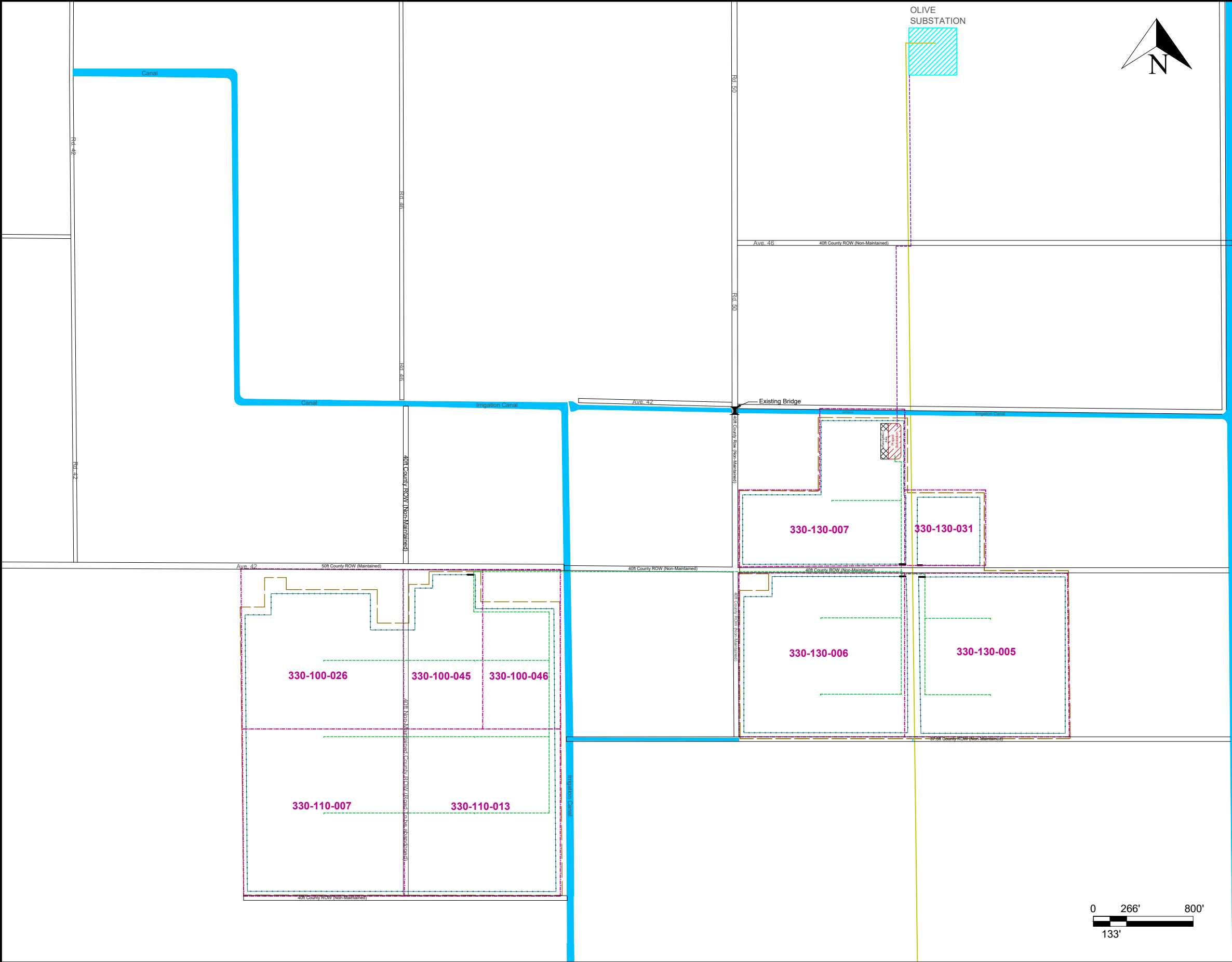
-  SITE
-  Supervisory Districts

0 1 2 Miles



Attachment B

Project Site Plan



SAMSUNG RENEWABLE ENERGY INC.

5601 EAST SLAUSON AVE, SUITE 101,
COMMERCE, CA 90040

FOR PERMITTING
PURPOSES ONLY

NOT FOR
CONSTRUCTION

- NOTES:
- DRAWING BASED OFF APPROXIMATIONS
 - TOTAL AREA: 277 ACRES (APPROX.)
 - PROJECT LAYOUT AREA: 250 ACRES (APPROX.)

- LEGEND:
- PV MODULES ARRAY (SINGLE AXIS TRACKER)
 - INVERTER
 - 138kV GEN TIE LINE (BURIED)
 - APN PARCEL BOUNDARY
 - 34.5kV COLLECTOR CIRCUIT (BURIED)
 - PROPOSED CHAIN LINK FENCE
 - FENCELINE
 - 138kV EXISTING T-LINE (UTILITY)
 - GATE
 - 20-FOOT ACCESS ROADS
 - 138 KV SUBSTATION
 - IRRIGATION CANAL

PROJECT:
ANGELA SOLAR

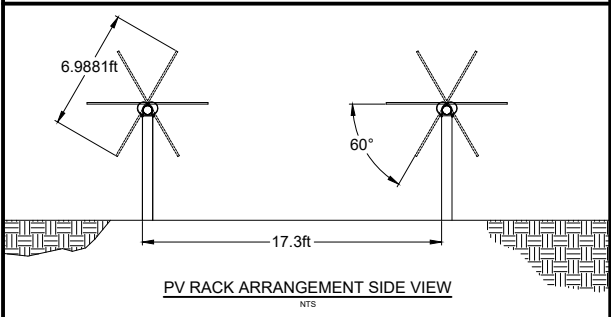
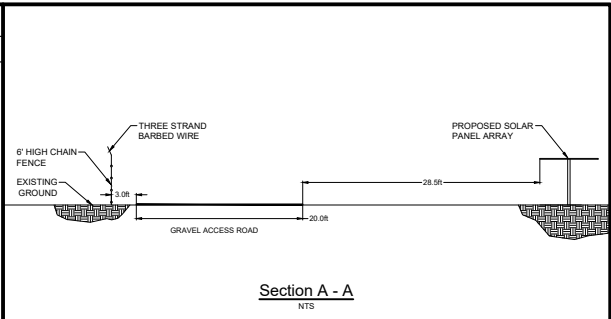
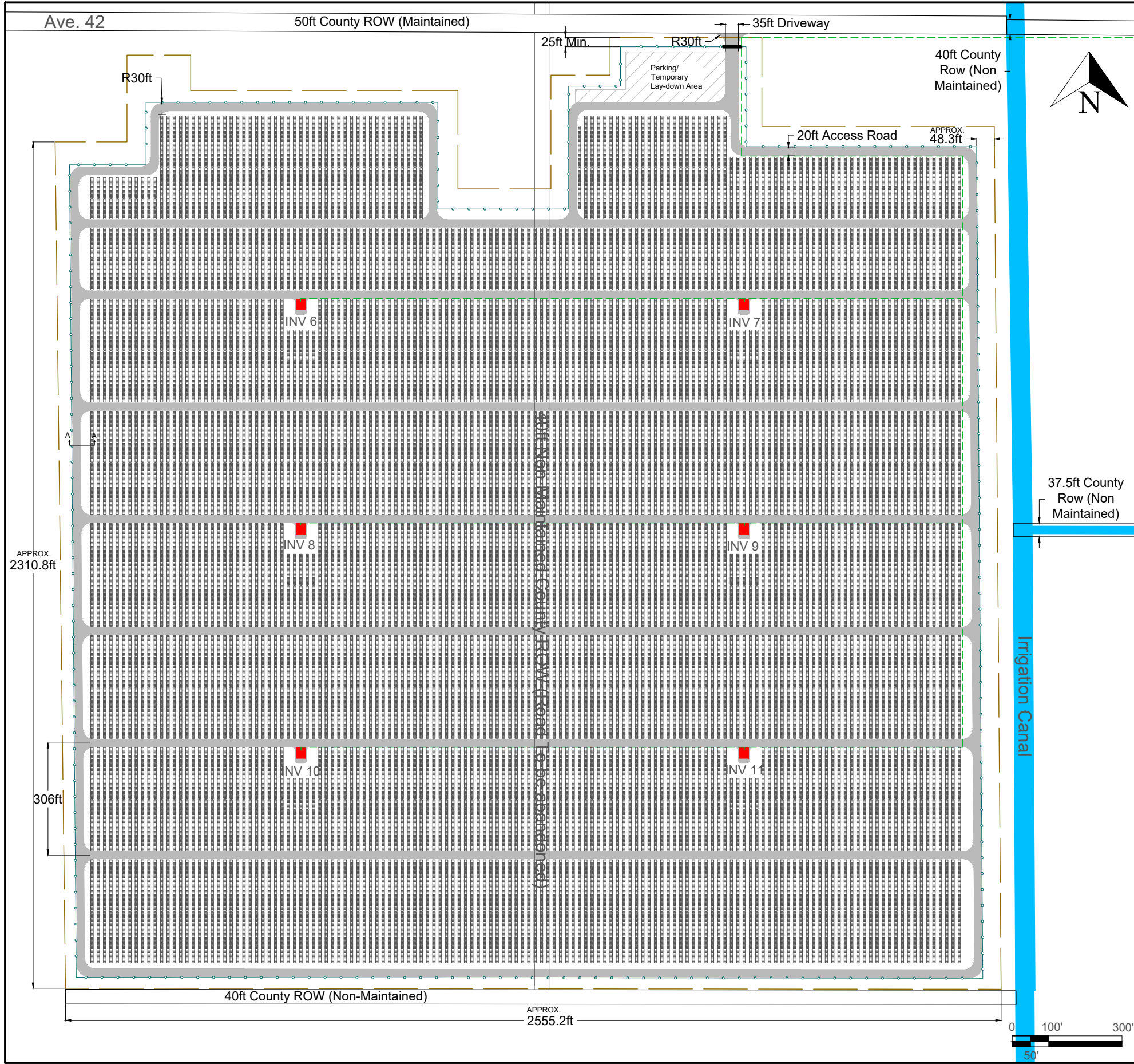
TITLE:
40 MW SITE OVERVIEW

ENTITY:
SAMSUNG SOLAR ENERGY 2, LLC

DRAWING NUMBER:
SITE-003

SHEET:
1/3

DATE:
MAY 20, 2020



GENERAL NOTES:

1. GENERATED POWER WILL BE LIMITED TO 40MW AT THE POI.
2. THERE ARE A TOTAL NUMBER OF INVERTERS: 11
3. PRELIMINARY DESIGN IS BASED ON:
 - A. 1500V DC, 415 CANADIAN SOLAR PV MODULE, MODEL CS3W-415P
 - B. SINGLE AXIS TRACKER WITH PV MODULE VERTICAL ARRANGEMENT WITH MAXIMUM OF 80 MODULES PER TRACKER.
 - C. ASSUMED INVERTER TYPE: SMA SUNNY CENTRAL 4600 UP-US
 - D. PROJECT MAY INCLUDE 80-MWhr DC-COUPLED BATTERY ENERGY STORAGE COMPONENT
4. 34.5kV COLLECTOR CABLE IS CONSIDERED TO BE ALLUMINUM 100% TRXLPE.
5. TOTAL NUMBER OF COLLECTOR CIRCUIT IS FOUR (4)
6. ZONING: AE-80
7. APNs: 330-100-026 , 330-100-045, 330-100-046, 330-100-007, 330-110-013
8. ROAD 46 BETWEEN AVENUE 38 & AVENUE 42 WILL BE ABANDONED

LEGEND:

- PV MODULES ARRAY (SINGLE AXIS TRACKER)
- INVERTER
- APN BOUNDARY
- 34.5KV COLLECTOR CIRCUIT (BURIED)
- PROPOSED CHAIN LINK FENCE
- FENCELINE
- 138KV T-LINE (UTILITY)
- GATE
- 20-FOOT ACCESS ROADS
- 138 KV SUBSTATION
- IRRIGATION CANAL



SAMSUNG
RENEWABLE
ENERGY
INC.

5601 EAST SLAUSON AVE, SUITE 101,
COMMERCE, CA 90040

FOR
INTERCONNECTION
APPLICATION ONLY

NOT FOR
CONSTRUCTION

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 - PROJECT LAYOUT AREA: 250 ACRES (APPROX.)

STAMP

SYSTEM SPECIFICATION

AC	40	MW
DC	57,439,320	W
PROJECT DC/AC RATIO	1.43	
INVERTER CAPACITY	4.6	MVA
PITCH	17.29	ft
TOTAL # OF MODULE	138,408	
NUMBER OF INVERTERS	11	
MODULE NAME	CS3W-415P	
MODULE CAPACITY	415	W

PROJECT:

ANGELA SOLAR

TITLE:

40 MW SITE PLAN

ENTITY:

SAMSUNG SOLAR ENERGY 2, LLC

DRAWING NUMBER:

SITE-001

DRAFTED BY:

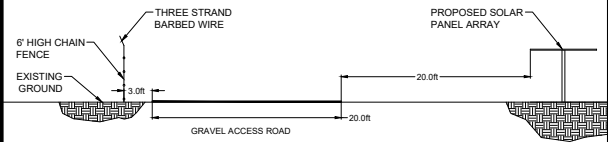
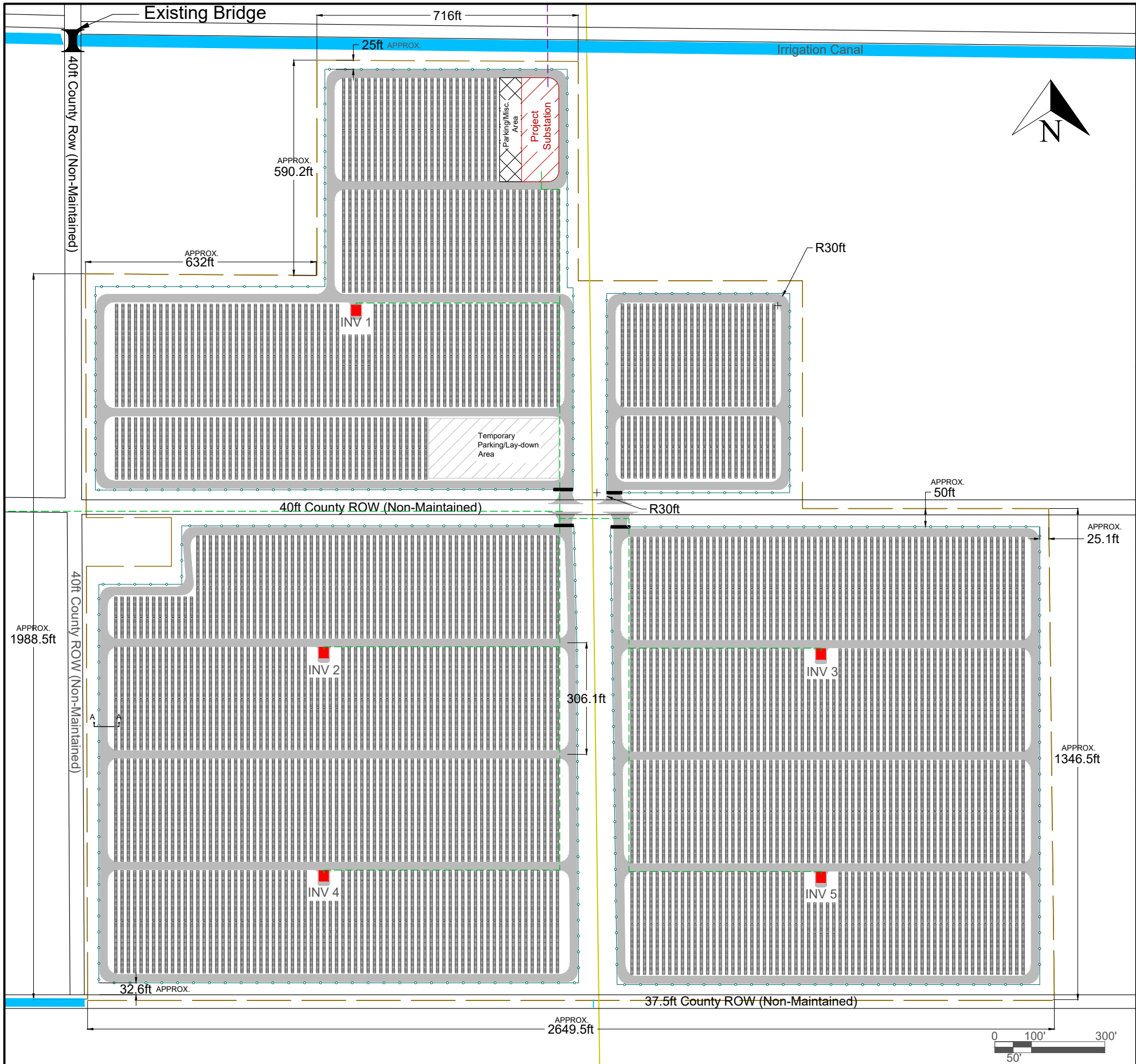
SEBASTIAN OPOKA-BARDONSKI

SHEET:

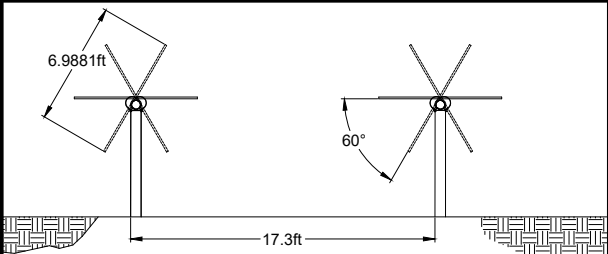
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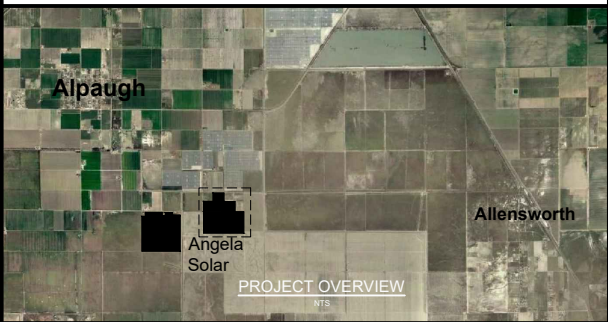
MAY 20, 2020



Section A - A
NTS



PV RACK ARRANGEMENT SIDE VIEW
NTS



PROJECT OVERVIEW
NTS

GENERAL NOTES:

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 - B. SINGLE AXIS TRACKER WITH PV MODULE VERTICAL ARRANGEMENT WITH MAXIMUM OF 80 MODULES PER TRACKER.
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4. 34.5kV COLLECTOR CABLE IS CONSIDERED TO BE ALLUMINUM 100% TRXLPE.
5. TOTAL NUMBER OF COLLECTOR CIRCUIT IS FOUR (4)
6. ZONING: AE-80
7. APNs: 330-100-005 , 330-100-006, 330-100-007, 330-100-031
8. ROAD 46 BETWEEN AVENUE 38 & AVENUE 42 WILL BE ABANDONED

LEGEND:

- | | |
|--|--|
| | PV MODULES ARRAY (SINGLE AXIS TRACKER) |
| | INVERTER |
| | 138kV GEN TIE LINE (BURIED) |
| | APN BOUNDARY |
| | 34.5kV COLLECTOR CIRCUIT (BURIED) |
| | PROPOSED CHAIN LINK FENCE |
| | FENCELINE |
| | 138kV EXISTING T-LINE (UTILITY) |
| | GATE |
| | 20-FOOT ACCESS ROADS |
| | 138 kV SUBSTATION |
| | IRRIGATION CANAL |



SAMSUNG RENEWABLE ENERGY INC.

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COMMERCE, CA 90040

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- NOTES:
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STAMP

SYSTEM SPECIFICATION

AC	40	MW
DC	57,439,320	W
PROJECT DC/AC RATIO	1.43	
INVERTER CAPACITY	4.6	MVA
PITCH	17.29	ft
TOTAL # OF MODULE	138,408	
NUMBER OF INVERTERS	11	
MODULE NAME	CS3W-415P	
MODULE CAPACITY	415	W

PROJECT:

ANGELA SOLAR

TITLE:

40 MW SITE PLAN

ENTITY:

SAMSUNG SOLAR ENERGY 2, LLC

DRAWING NUMBER:

SITE-002

DRAFTED BY:

SEBASTIAN OPOKA-BARDONSKI

SHEET:

3/3

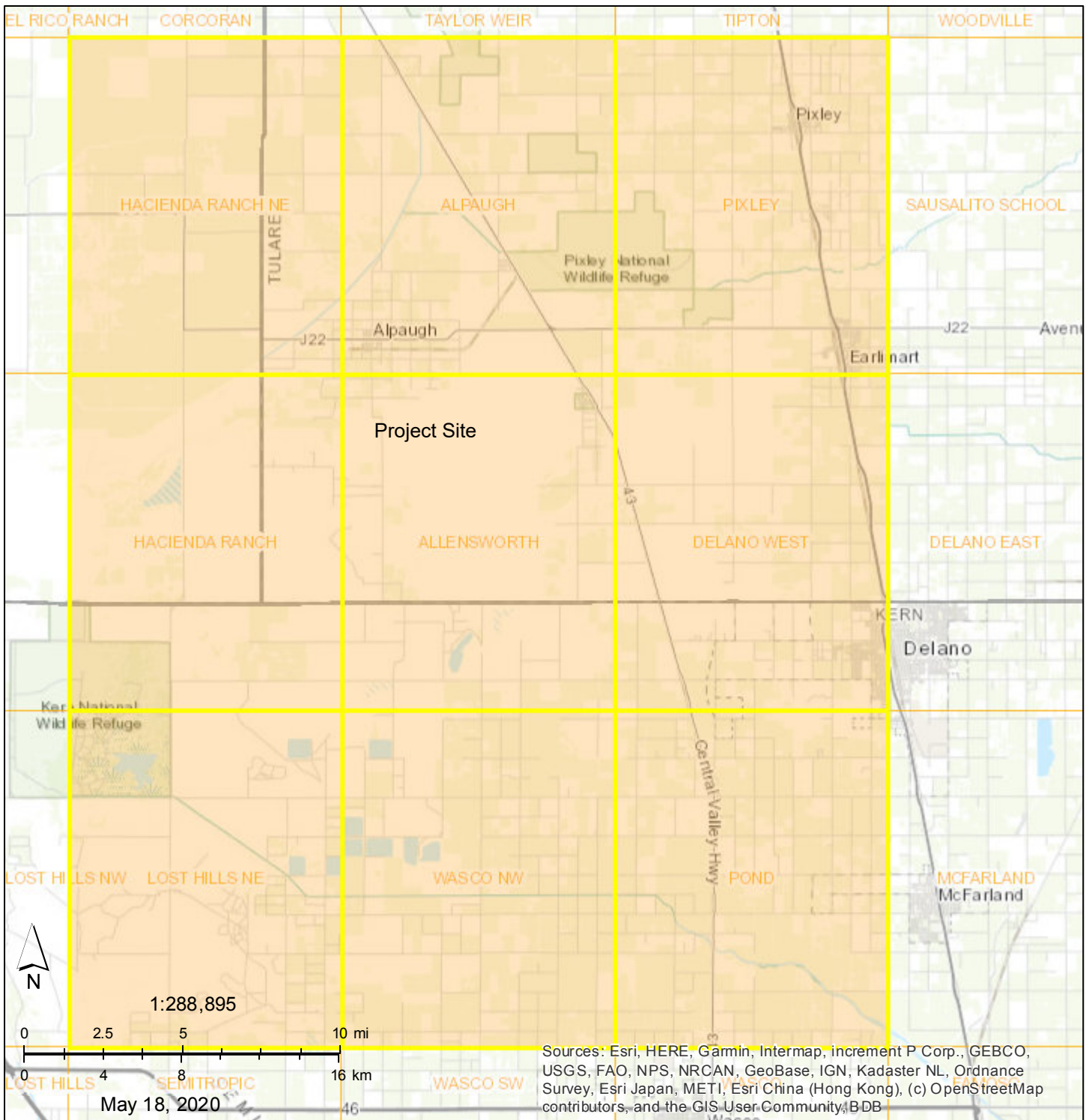
DATE:

MAY 20, 2020

Attachment C

9-Quad Project Area

9-Quad Project Area

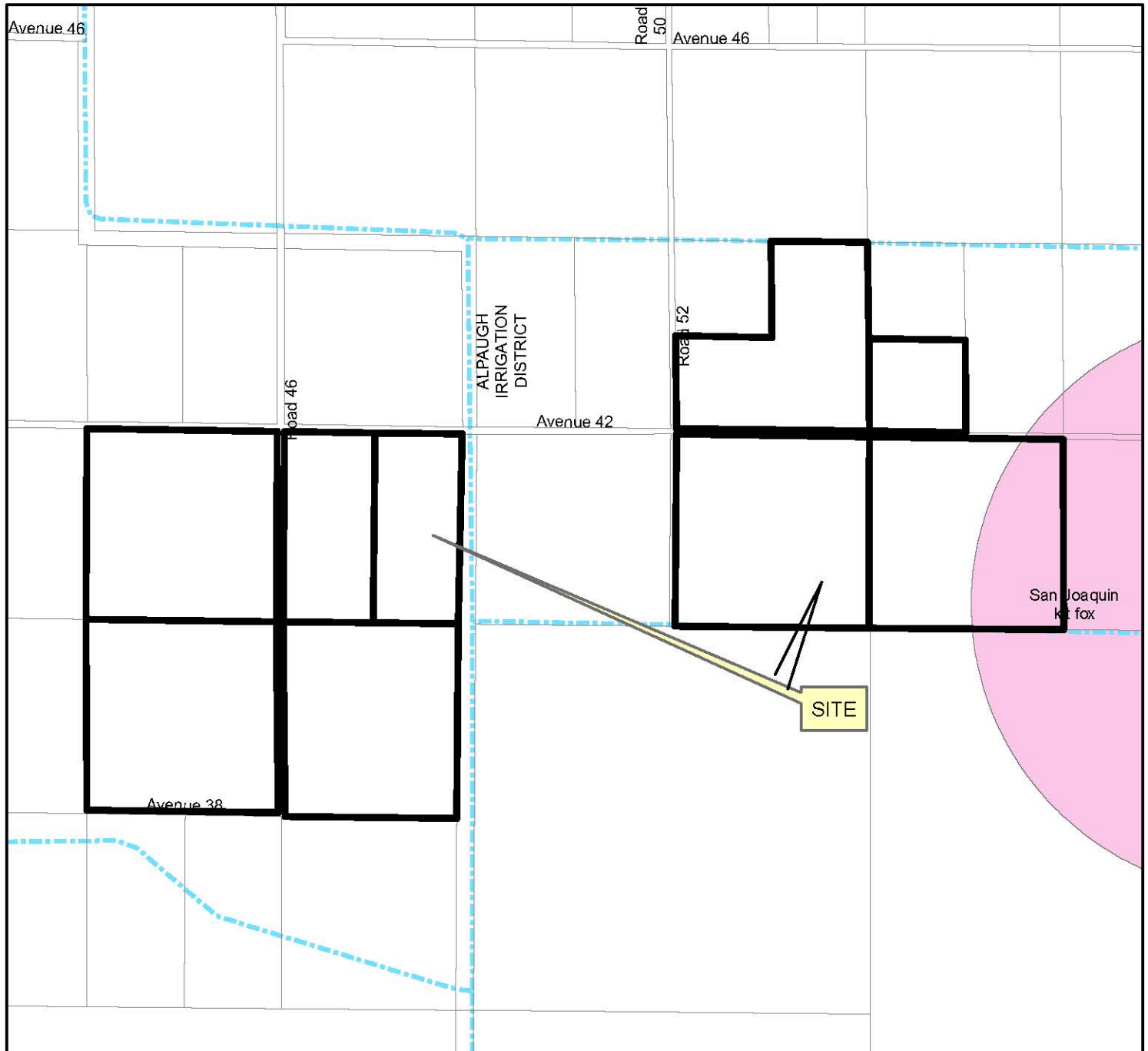


Attachment D

Project Site Species Map



Species of Concern for PSP 19-083



CNDDDB (data file last updated on 1/7/2020)

0 0.25 0.5 Miles



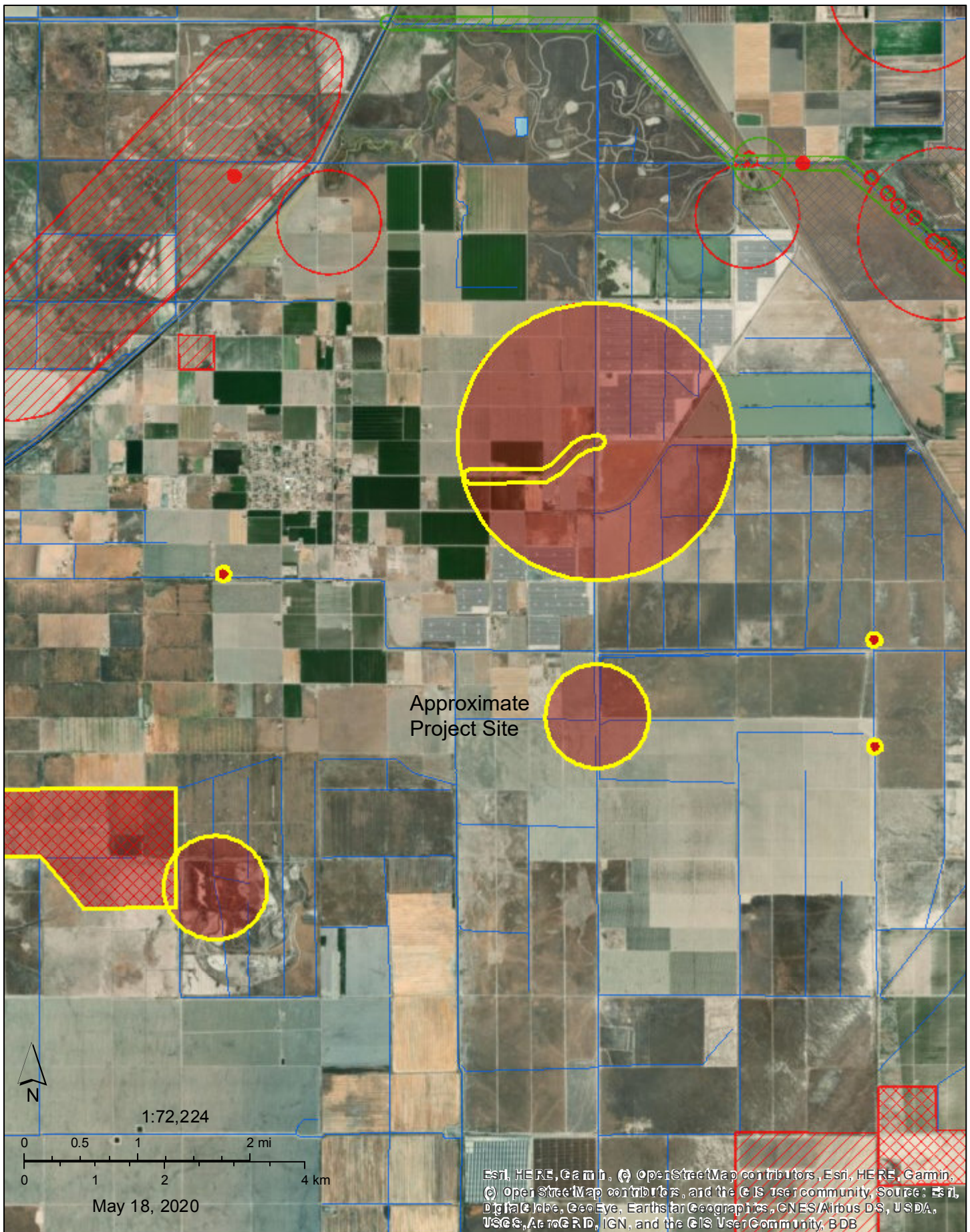
-  SITE
-  Species of Concern (CNDDDB)
-  San Joaquin kit fox
-  Parcels

Attachment E

CDFW CNDDDB/BIOS Species Map

(areas outlined in yellow are species within 3 miles of the site)

Species within 2 Miles of Project Site



Attachment F

CNDDDB Project Area Species List (Species recorded within 2 miles of Project site)

California Natural Diversity Database (CNDDB) Government [ds45]

Scientific Name	Common Name	Element Code	Occ Number	MAPNDX	EONDX	Key Quad Code	Key Quad Name	Key County Code	Accuracy	Presence	Occ Type	Occ Rank	Sensitive	Site Date	Elm Date	Owner Management	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank	CDFW Status	Other Status	Symbology	Taxon Group
Charadrius alexandrinus nivosus	western snowy plover	ABNNB03031	107	15184	14724	3511975	Hacienda Ranch	TUL	specific area	Presumed Extant	Natural/Native occurrence	Unknown	N	1983XXXX	1983XXXX	PVT-TULARE LAKE DRAINAGE DIST	Threatened	None	G3T3	S2S3		SSC	NABCI_RWL; USFWS_BCC	202	Birds
Buteo swainsoni	Swainson's hawk	ABNKC19070	773	41926	41926	3511984	Alpaugh	TUL	80 meters	Presumed Extant	Natural/Native occurrence	Good	N	20030611	20000620	ALPAUGH IRRIGATION DIST	None	Threatened	G5	S3			BLM_S; IUCN_LC; USFWS_BCC	201	Birds
Atriplex cordulata var. erecticaulis	Earl's salt-tolerant shrub	PDCHD042V0	13	47218	47218	3511984	Alpaugh	TUL	nonspecific area	Presumed Extant	Natural/Native occurrence	Unknown	N	19900818	19900818	UNKNOWN	None	None	G3T1	S1	1B.2		BLM_S	103	Dicots
Vulpes macrotis mutica	San Joaquin kit fox	AMAJA03041	819	67674	67829	3511974	Allensworth	TUL	2/5 mile	Presumed Extant	Natural/Native occurrence	Unknown	N	197507XX	197507XX	UNKNOWN	Endangered	Threatened	G4T2	S2				204	Mammals
Perognathus inornatus	San Joaquin Pocket Mouse	AMAFD01060	135	95025	96154	3511974	Allensworth	TUL	80 meters	Presumed Extant	Natural/Native occurrence	Unknown	N	20070529	20070529	DPR-COLONEL ALLENSWORTH SHP	None	None	G2G3	S2S3			BLM_S; IUCN_LC	201	Mammals
Agelaius tricolor	tricolored blackbird	ABPBXB0020	693	97642	98974	3511974	Allensworth	TUL	2/5 mile	Presumed Extant	Natural/Native occurrence	Unknown	N	20150408	20150408	BLM-ATWELL ISLAND LAND	None	Threatened	G2G3	S1S2		SSC	BLM_S; IUCN_EN; NABCI_RWL; USFWS_BCC	204	Birds
Athene cucularia	burrowing owl	ABNSB10010	1956	A0134	101696	3511974	Allensworth	TUL	80 meters	Presumed Extant	Natural/Native occurrence	Fair	N	20160129	20160129	UNKNOWN	None	None	G4	S3		SSC	BLM_S; IUCN_LC; USFWS_BCC	201	Birds
Gambelia sila	blunt-nosed leopard lizard	ARACF07010	453	B3657	116571	3511984	Alpaugh	TUL	1 mile	Presumed Extant	Natural/Native occurrence	Unknown	N	19590509	19590509	PVT	Endangered	Endangered	G1	S1		FP	IUCN_EN	204	Reptiles

Attachment G

CNDDDB Project Area Species List

(Species recorded within the Allensworth Quadrangle)



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad> IS >(Allensworth (3511974))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Agelaius tricolor</i> tricolored blackbird	ABPBXB0020	None	Threatened	G2G3	S1S2	SSC
<i>Ammospermophilus nelsoni</i> Nelson's antelope squirrel	AMAFB04040	None	Threatened	G2	S2S3	
<i>Athene cunicularia</i> burrowing owl	ABNSB10010	None	None	G4	S3	SSC
<i>Atriplex cordulata var. erecticaulis</i> Earlilmart orache	PDCHE042V0	None	None	G3T1	S1	1B.2
<i>Atriplex depressa</i> brittlescale	PDCHE042L0	None	None	G2	S2	1B.2
<i>Atriplex minuscula</i> lesser saltscale	PDCHE042M0	None	None	G2	S2	1B.1
<i>Delphinium recurvatum</i> recurved larkspur	PDRAN0B1J0	None	None	G2?	S2?	1B.2
<i>Dipodomys nitratoide nitratoide</i> Tipton kangaroo rat	AMAFD03152	Endangered	Endangered	G3T1T2	S1S2	
<i>Gambelia sila</i> blunt-nosed leopard lizard	ARACF07010	Endangered	Endangered	G1	S1	FP
<i>Masticophis flagellum ruddocki</i> San Joaquin coachwhip	ARADB21021	None	None	G5T2T3	S2?	SSC
<i>Perognathus inornatus</i> San Joaquin Pocket Mouse	AMAFD01060	None	None	G2G3	S2S3	
<i>Phrynosoma blainvillii</i> coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
<i>Spea hammondi</i> western spadefoot	AAABF02020	None	None	G3	S3	SSC
Valley Saltbush Scrub Valley Saltbush Scrub	CTT36220CA	None	None	G2	S2.1	
Valley Sink Scrub Valley Sink Scrub	CTT36210CA	None	None	G1	S1.1	
<i>Vulpes macrotis mutica</i> San Joaquin kit fox	AMAJA03041	Endangered	Threatened	G4T2	S2	

Record Count: 16

Attachment H

CNDDB Species List

(Species recorded within the 9-quadrangle Project area)



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad> IS (Hacienda Ranch (3511975) OR Hacienda Ranch NE (3511985) OR Alpaugh (3511984) OR Pixley (3511983) OR Delano West (3511973) OR Pond (3511963) OR Wasco NW (3511964) OR Lost Hills NE (3511965) OR Allensworth (3511974))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Agelaius tricolor</i> tricolored blackbird	ABPBXB0020	None	Threatened	G2G3	S1S2	SSC
<i>Ammospermophilus nelsoni</i> Nelson's antelope squirrel	AMAFB04040	None	Threatened	G2	S2S3	
<i>Anniella grinnelli</i> Bakersfield legless lizard	ARACC01050	None	None	G2G3	S2S3	SSC
<i>Aquila chrysaetos</i> golden eagle	ABNKC22010	None	None	G5	S3	FP
<i>Astragalus hornii</i> var. <i>hornii</i> Horn's milk-vetch	PDFAB0F421	None	None	GUT1	S1	1B.1
<i>Athene cunicularia</i> burrowing owl	ABNSB10010	None	None	G4	S3	SSC
<i>Atriplex cordulata</i> var. <i>erecticaulis</i> Earlimart orache	PDCHE042V0	None	None	G3T1	S1	1B.2
<i>Atriplex coronata</i> var. <i>vallicola</i> Lost Hills crownscale	PDCHE04371	None	None	G4T3	S3	1B.2
<i>Atriplex depressa</i> brittlescale	PDCHE042L0	None	None	G2	S2	1B.2
<i>Atriplex minuscula</i> lesser saltscale	PDCHE042M0	None	None	G2	S2	1B.1
<i>Atriplex subtilis</i> subtle orache	PDCHE042T0	None	None	G1	S1	1B.2
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
<i>Buteo swainsoni</i> Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
<i>Calochortus striatus</i> alkali mariposa-lily	PMLIL0D190	None	None	G3?	S2S3	1B.2
<i>Caulanthus californicus</i> California jewelflower	PDBRA31010	Endangered	Endangered	G1	S1	1B.1
<i>Charadrius alexandrinus nivosus</i> western snowy plover	ABNNB03031	Threatened	None	G3T3	S2S3	SSC
<i>Charadrius montanus</i> mountain plover	ABNNB03100	None	None	G3	S2S3	SSC
<i>Cicindela tranquebarica</i> ssp. San Joaquin tiger beetle	IICOL0220E	None	None	G5T1	S1	



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Cirsium crassicaule</i> slough thistle	PDAST2E0U0	None	None	G1	S1	1B.1
<i>Delphinium recurvatum</i> recurved larkspur	PDRAN0B1J0	None	None	G2?	S2?	1B.2
<i>Dendrocygna bicolor</i> fulvous whistling-duck	ABNJB01010	None	None	G5	S1	SSC
<i>Dipodomys nitratoide nitratoide</i> Tipton kangaroo rat	AMAFD03152	Endangered	Endangered	G3T1T2	S1S2	
<i>Egretta thula</i> snowy egret	ABNGA06030	None	None	G5	S4	
<i>Eremalche parryi ssp. kernensis</i> Kern mallow	PDMAL0C031	Endangered	None	G3G4T3	S3	1B.2
<i>Eriastrum hooveri</i> Hoover's eriastrum	PDPLM03070	Delisted	None	G3	S3	4.2
<i>Gambelia sila</i> blunt-nosed leopard lizard	ARACF07010	Endangered	Endangered	G1	S1	FP
<i>Lasthenia glabrata ssp. coulteri</i> Coulter's goldfields	PDAST5L0A1	None	None	G4T2	S2	1B.1
<i>Layia munzii</i> Munz's tidy-tips	PDAST5N0B0	None	None	G2	S2	1B.2
<i>Lytta hoppingi</i> Hopping's blister beetle	IICOL4C010	None	None	G1G2	S1S2	
<i>Lytta molesta</i> molestan blister beetle	IICOL4C030	None	None	G2	S2	
<i>Lytta morrisoni</i> Morrison's blister beetle	IICOL4C040	None	None	G1G2	S1S2	
<i>Masticophis flagellum ruddocki</i> San Joaquin coachwhip	ARADB21021	None	None	G5T2T3	S2?	SSC
<i>Monolopia congdonii</i> San Joaquin woollythreads	PDASTA8010	Endangered	None	G2	S2	1B.2
<i>Northern Claypan Vernal Pool</i> Northern Claypan Vernal Pool	CTT44120CA	None	None	G1	S1.1	
<i>Nycticorax nycticorax</i> black-crowned night heron	ABNGA11010	None	None	G5	S4	
<i>Onychomys torridus tularensis</i> Tulare grasshopper mouse	AMAFF06021	None	None	G5T1T2	S1S2	SSC
<i>Perognathus inornatus</i> San Joaquin Pocket Mouse	AMAFD01060	None	None	G2G3	S2S3	
<i>Phacelia ciliata var. opaca</i> Merced phacelia	PDHYD0C0S2	None	None	G5TH	SH	3.2
<i>Phrynosoma blainvillii</i> coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Plegadis chihi</i> white-faced ibis	ABNGE02020	None	None	G5	S3S4	WL
<i>Puccinellia simplex</i> California alkali grass	PMPOA53110	None	None	G3	S2	1B.2
<i>Sorex ornatus relictus</i> Buena Vista Lake ornate shrew	AMABA01102	Endangered	None	G5T1	S1	SSC
<i>Spea hammondi</i> western spadefoot	AAABF02020	None	None	G3	S3	SSC
<i>Taxidea taxus</i> American badger	AMAJF04010	None	None	G5	S3	SSC
<i>Tropidocarpum californicum</i> Kings gold	PDBRA33010	None	None	G1	S1	1B.1
<i>Valley Sacaton Grassland</i> Valley Sacaton Grassland	CTT42120CA	None	None	G1	S1.1	
<i>Valley Saltbush Scrub</i> Valley Saltbush Scrub	CTT36220CA	None	None	G2	S2.1	
<i>Valley Sink Scrub</i> Valley Sink Scrub	CTT36210CA	None	None	G1	S1.1	
<i>Vulpes macrotis mutica</i> San Joaquin kit fox	AMAJA03041	Endangered	Threatened	G4T2	S2	

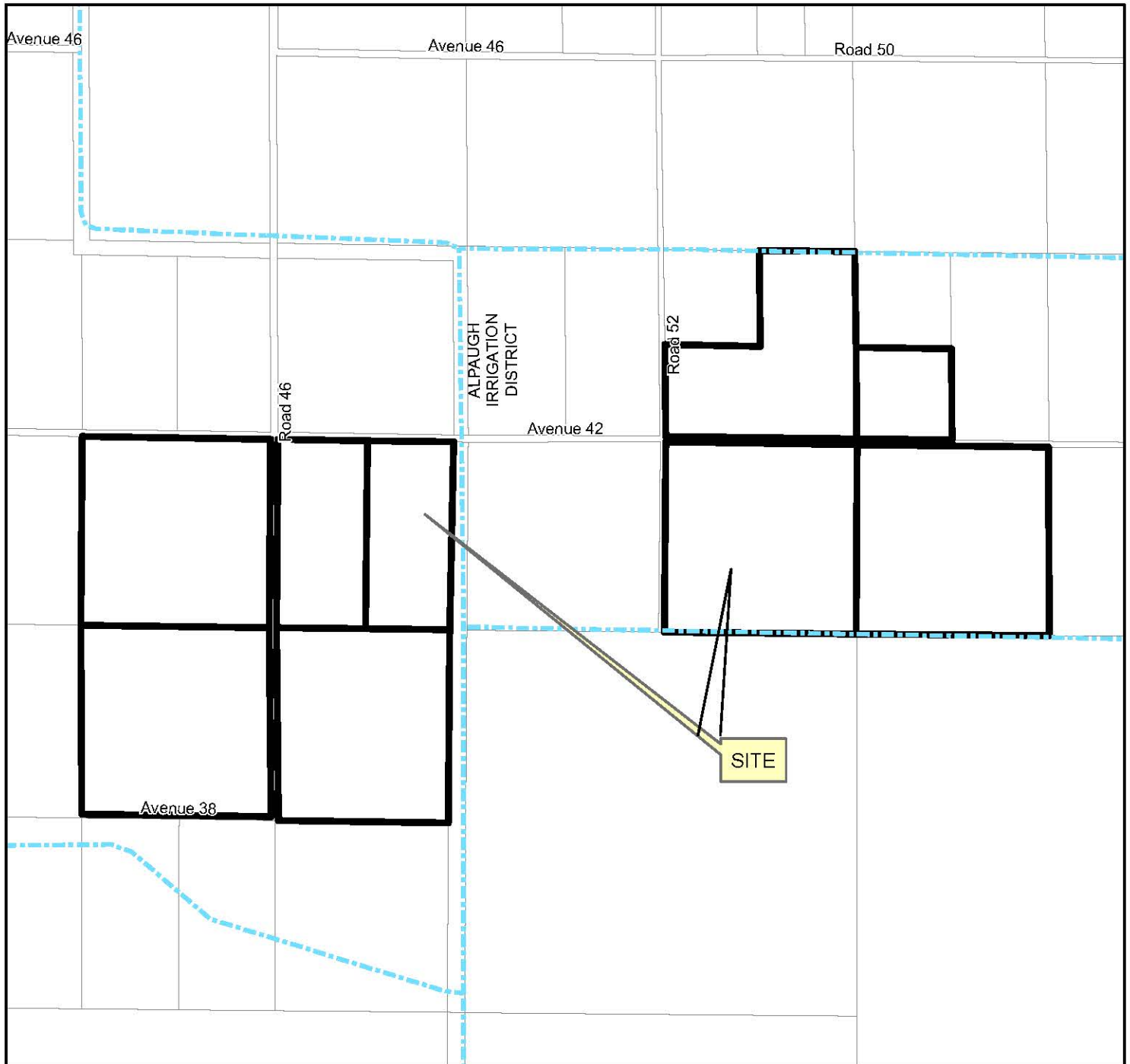
Record Count: 49





Attachment I

Project Site Waterways Map



Waterways Map for PSP 19-083



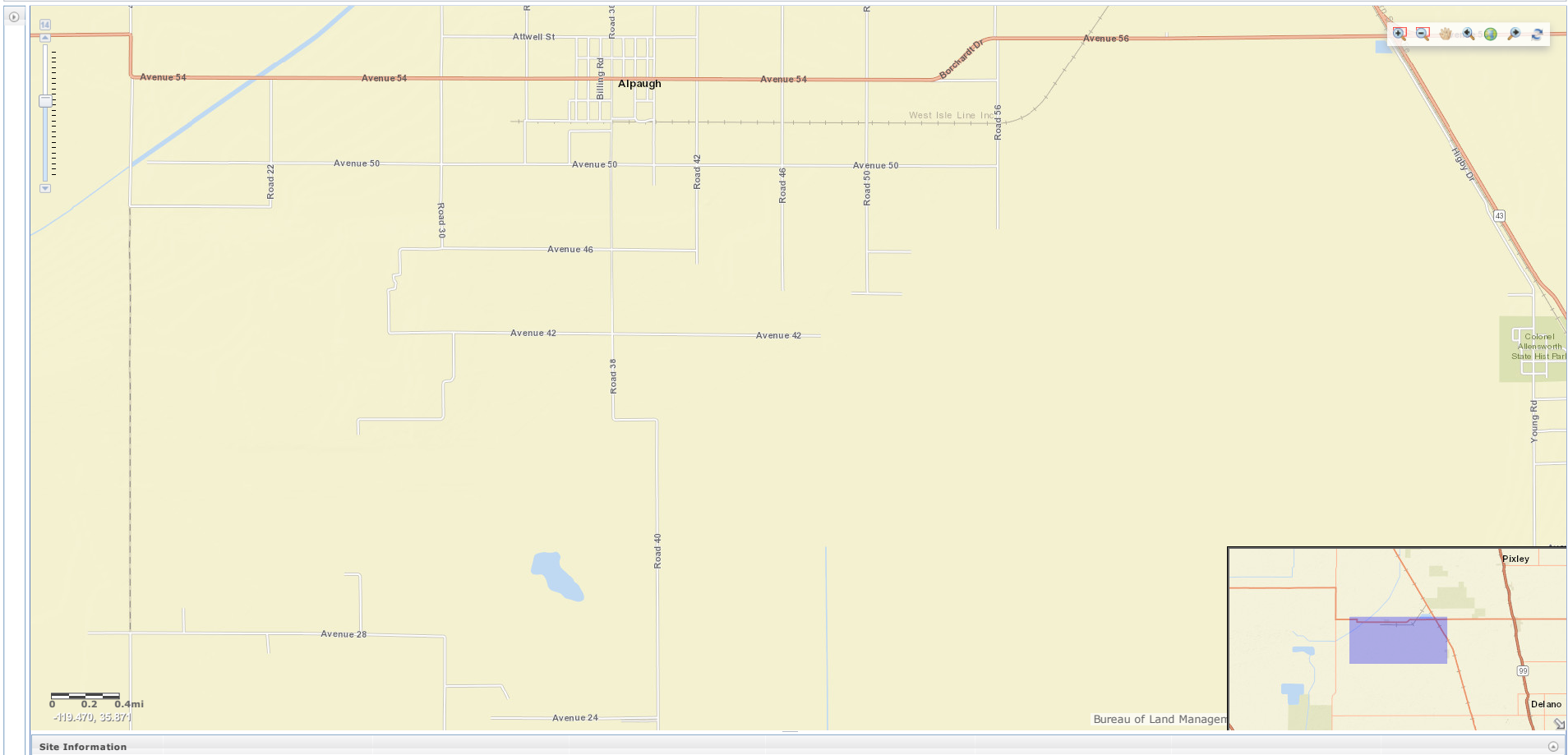
-  Waterways
-  SITE
-  Parcels
-  County Boundary

0 1,000 Feet



Attachment J

USGS National Water Information System Map



Attachment K

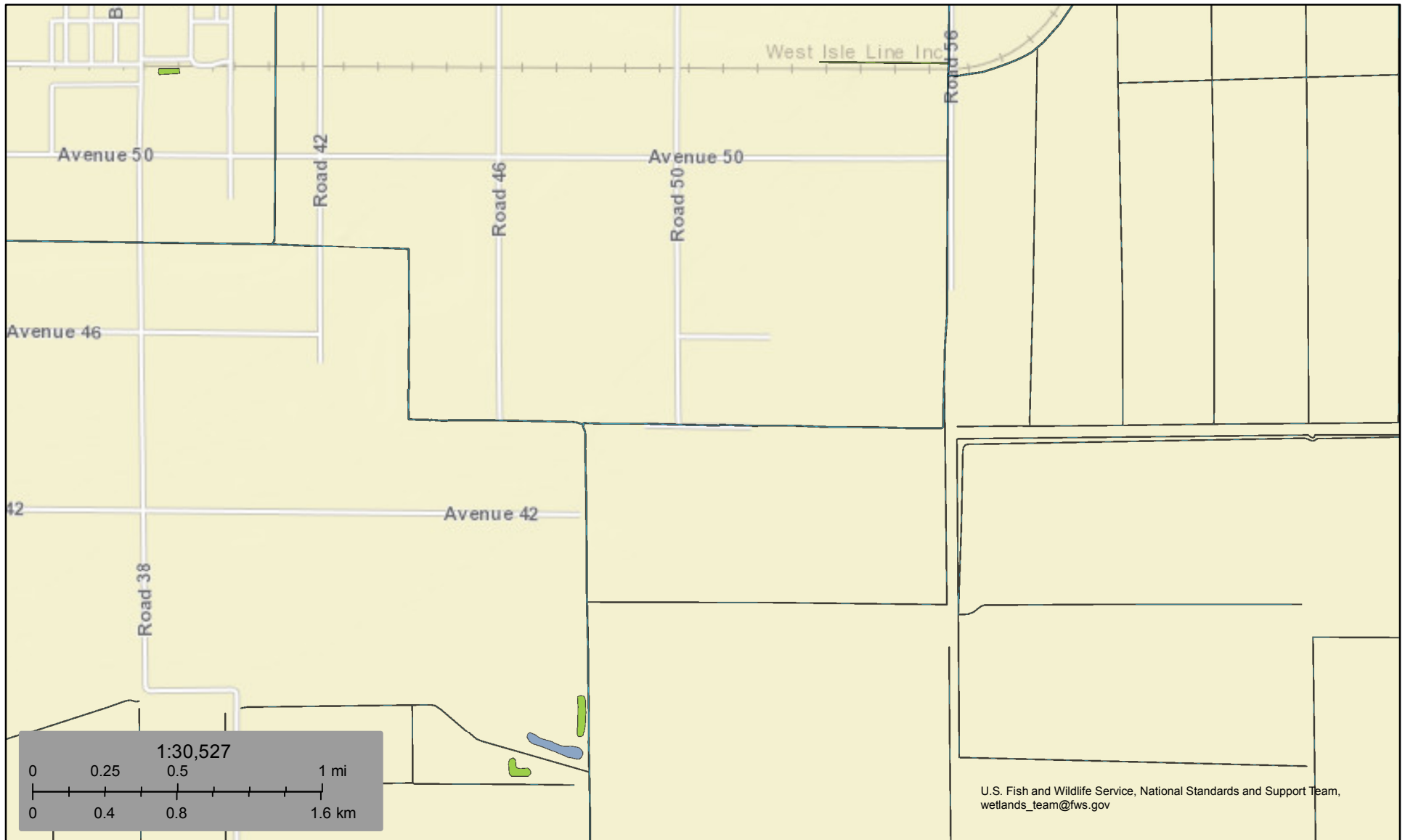
USFWS National Wetlands Inventory Map



U.S. Fish and Wildlife Service

National Wetlands Inventory

Wetland in the Vicinity of Angela Solar



May 19, 2020

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond

- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Attachment “C”

Cultural and Tribal Cultural Resources

(California Historical Resources Information System Search and Tribal Consultation Tracking Table)

Consultation Notice – ANGELA SOLAR PROJECT (PSP 19-083)														
TRIBE CONTACTED	REQUEST TYPE			ITEMS & DOCUMENTS SUBMITTED					DELIVERY METHOD			CONSULTATION PERIOD		CONSULTATION / ACTIONS
	AB 52	SB 18	Sec 106	Map	Project Description	SLF Search Results	CHRIS Results	Other	E-mail	FedEx	Certified US Mail	Return Receipt	Period Ends	Summary
SACRED LAND FILE (SLF) REQUEST														
Native American Heritage Commission	X				X				5/6/20					
CONSULTATION REQUEST LETTERS														
Kern Valley Indian Community Robert Robinson, Co-Chairperson P.O. Box 1010 Lake Isabella, CA 93240	X				X				5/6/20		5/6/20 7016 2070 0000 4983 7370	5/15/20		
Kern Valley Indian Community Julie Turner, Secretary P. Box 1010 Lake Isabella, CA 93240	X				X				5/6/20		5/6/20 7016 2070 0000 4983 7387	5/15/20		
Kern Valley Indian Community Brandi Kendricks 30741 Foxridge Court Tehachapi, CA 93561	X				X				5/6/20		5/6/20 7016 2070 0000 4983 7394	5/8/15		
Santa Rosa Rancheria Tachi Yokut Tribe Leo Sisco, Chairperson P. O. Box 8 Lemoore, CA 93245	X				X				5/6/20		5/6/20 7016 2070 0000 4983 7400	5/8/20		5/14/20, email received from S. Powers requesting inclusion of mitigation measures 5/20/20, email sent to S. Powers confirming inclusion of measures in MND and providing her with the SLF and CHRIS record searches.
Santa Rosa Rancheria Tachi Yokut Tribe Robert Jeff, Vice-Chair P. O. Box 8 Lemoore, CA 93245	X				X				5/6/20		5/6/20 7016 2070 0000 4983 7417	5/8/20		
Santa Rosa Rancheria Tachi Yokut Tribe Bianca Arias, Admin. Assistant. P. O. Box 8 Lemoore, CA 93245	X				X				5/6/20		5/6/20 7013 0600 0002 1698 1312	5/8/20		

Consultation Notice – ANGELA SOLAR PROJECT (PSP 19-083)														
TRIBE CONTACTED	REQUEST TYPE			ITEMS & DOCUMENTS SUBMITTED					DELIVERY METHOD			CONSULTATION PERIOD		CONSULTATION / ACTIONS
	AB 52	SB 18	Sec 106	Map	Project Description	SLF Search Results	CHRIS Results	Other	E-mail	FedEx	Certified US Mail	Return Receipt	Period Ends	Summary
Santa Rosa Rancheria Cultural Department Shana Powers, Director P. O. Box 8 Lemoore, CA 93245	X				X				5/6/20		5/6/20 7013 0600 0002 1698 1329	5/8/20		
Santa Rosa Rancheria Tachi Yokut Tribe Cultural Department Greg Cuara, Cultural Specialist P. O. Box 8 Lemoore, CA 93245	X				X				5/6/20		5/6/20 7013 0600 0002 1698 1336	5/8/20		
Tubatulabals of Kern Valley Robert L. Gomez, Jr., Chairperson P.O. Box 226 Lake Isabella, CA 93240	X				X				5/6/20		5/6/20 7013 0600 0002 1698 1343			As of 5/20/20 the online tracking status states, “Delivery Attempt: Action Needed - Reminder to Schedule Redelivery of your item before June 6, 2020.”
Tule River Indian Tribe Neil Peyron, Chairperson P. O. Box 589 Porterville, CA 93258	X				X				5/6/20		5/6/20 7013 0600 0002 1698 1350	5/9/20		
Tule River Indian Tribe Environmental Department Kerri Vera, Director P. O. Box 589 Porterville, CA 93258	X				X				5/6/20		5/6/20 7013 0600 0002 1698 1367	5/9/20		
Tule River Indian Tribe Dept. of Environmental Protection Felix Christman, Archaeological Monitor P. O. Box 589 Porterville, CA 93258	X				X				5/6/20		5/6/20 7016 2070 0000 4983 7356	5/9/20		
Wuksache Indian Tribe/ Eshom Valley Band Kenneth Woodrow, Chairperson 1179 Rock Haven Ct. Salinas, CA 93906	X				X				5/6/20		5/6/20 7016 2070 0000 4983 7363			As of 5/20/20 the online tracking status states, “Alert - May 9, 2020 at 3:09 am, Awaiting Delivery Scan.”



NATIVE AMERICAN HERITAGE COMMISSION

May 8, 2020

Jessica Willis

Tulare County

Via Email to: JWillis@co.tulare.ca.us

CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

SECRETARY
Merri Lopez-Keifer
Luiseño

PARLIAMENTARIAN
Russell Attebery
Karuk

COMMISSIONER
Marshall McKay
Wintun

COMMISSIONER
William Mungary
Paiute/White Mountain Apache

COMMISSIONER
Julie Tumamait-Stenslie
Chumash

COMMISSIONER
[Vacant]

COMMISSIONER
[Vacant]

EXECUTIVE SECRETARY
Christina Snider
Pomo

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

Re: **Angela Solar Project (PSP 19-083), Tulare County**

Dear Ms. Willis

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Nancy.Gonzalez-Lopez@nahc.ca.gov.

Sincerely,

Nancy Gonzalez-Lopez
Cultural Resources Analyst

Attachment

**Native American Heritage Commission
Native American Contacts List
May 8, 2020**

Kern Valley Indian Community
Julie Turner, Secretary
P.O. Box 1010
Lake Isabella CA 93240
(661) 340-0032 Cell

Kawaiisu
Tubatulabal

Tule River Indian Tribe
Neil Peyron, Chairperson
P.O. Box 589
Porterville CA 93258
neil.peyron@tulerivertribe-nsn.gov
(559) 781-4271
(559) 781-4610 Fax

Yokuts

Kern Valley Indian Community
Robert Robinson, Chairperson
P.O. Box 1010
Lake Isabella CA 93240
bbutterbredt@gmail.com
(760) 378-2915 Cell

Tubatulabal
Kawaiisu

Wuksache Indian Tribe/Eshom Valley Band
Kenneth Woodrow, Chairperson
1179 Rock Haven Ct.
Salinas CA 93906
kwood8934@aol.com
(831) 443-9702

Foothill Yokuts
Mono
Wuksache

Kern Valley Indian Community
Brandy Kendricks
30741 Foxridge Court
Tehachapi CA 93561
krazykendricks@hotmail.com
(661) 821-1733
(661) 972-0445

Kawaiisu
Tubatulabal

Santa Rosa Rancheria Tachi Yokut Tribe
Leo Sisco, Chairperson
P.O. Box 8
Lemoore CA 93245
(559) 924-1278
(559) 924-3583 Fax

Tache
Tachi
Yokut

Tubatulabals of Kern Valley
Robert L. Gomez, Jr., Tribal Chairperson
P.O. Box 226
Lake Isabella CA 93240
(760) 379-4590
(760) 379-4592 Fax

Tubatulabal

This list is current as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code, or Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans Tribes for the proposed:
Angela Solar Project (PSP 19-083), Tulare County.

PROJECT NOTIFICATION AND TRIBAL CONSULTATION REQUEST

Project Title: Angela Solar Project (PSP 19-083)

Project Location: The project is located on two noncontiguous sites along Avenue 42 (see attached figures), approximately two miles southeast of the community of Alpaugh, within Tulare County, California

USGS 7.5 Minute Quadrangle(s): Allensworth

APN(s): 330-100-026, 045, 046 & 330-110-007, 013 & 330-130-005, 006, 007, 031

PLSS: Sections 2, 3 & 10, Township 24 South, Range 23 East, MDB&M.

Land Use Designation/Zoning: Agricultural / AE-80 (Exclusive Agriculture – 80 acre minimum)

Project Description: The applicant is proposing a 40 MW solar generation facility located on approximately 277 acres in Tulare County. The project will primarily consist of photovoltaic panels, a single axis tracker system, inverters and transformers, electric cabling and communication lines, on-site switchgear, generation-tie lines, access roads, and a security fence. The project also includes an approximate 1-mile transmission line that will interconnect at the Olive Substation and may include an 80 MWhr battery storage component.

Request for Consultation: Pursuant to the provisions of AB 52, as the lead agency under the California Environmental Quality Act (CEQA), the County of Tulare hereby extends an invitation to consult on the California Environmental Quality Act (CEQA) review of the Angela Solar Project (PSP 19-083) in order to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places and tribal cultural resources.

If your Tribe desires to consult with the County on the review of this project, please respond in writing within thirty (30) days of receipt of this notification or as per Executive Order N-57-20. Written correspondence can be mailed to the following addresses:

US Post: Tulare County Resource Management Agency
Environmental Planning Division
Attn: Jessica Willis / Hector Guerra
5961 S. Mooney Blvd.
Visalia, CA 93277-9394

E-mail: JWillis@co.tulare.ca.us and HGuerra@co.tulare.ca.us

If you need further assistance or have any questions, please feel free to contact Jessica Willis by phone at (559) 624-7122, or Hector Guerra at (559) 624-7121.

If the County does not receive a response to this notification, it will be presumed that your Tribe has declined the opportunity to consult on this project pursuant to AB 52.

Figure 1. Vicinity Map

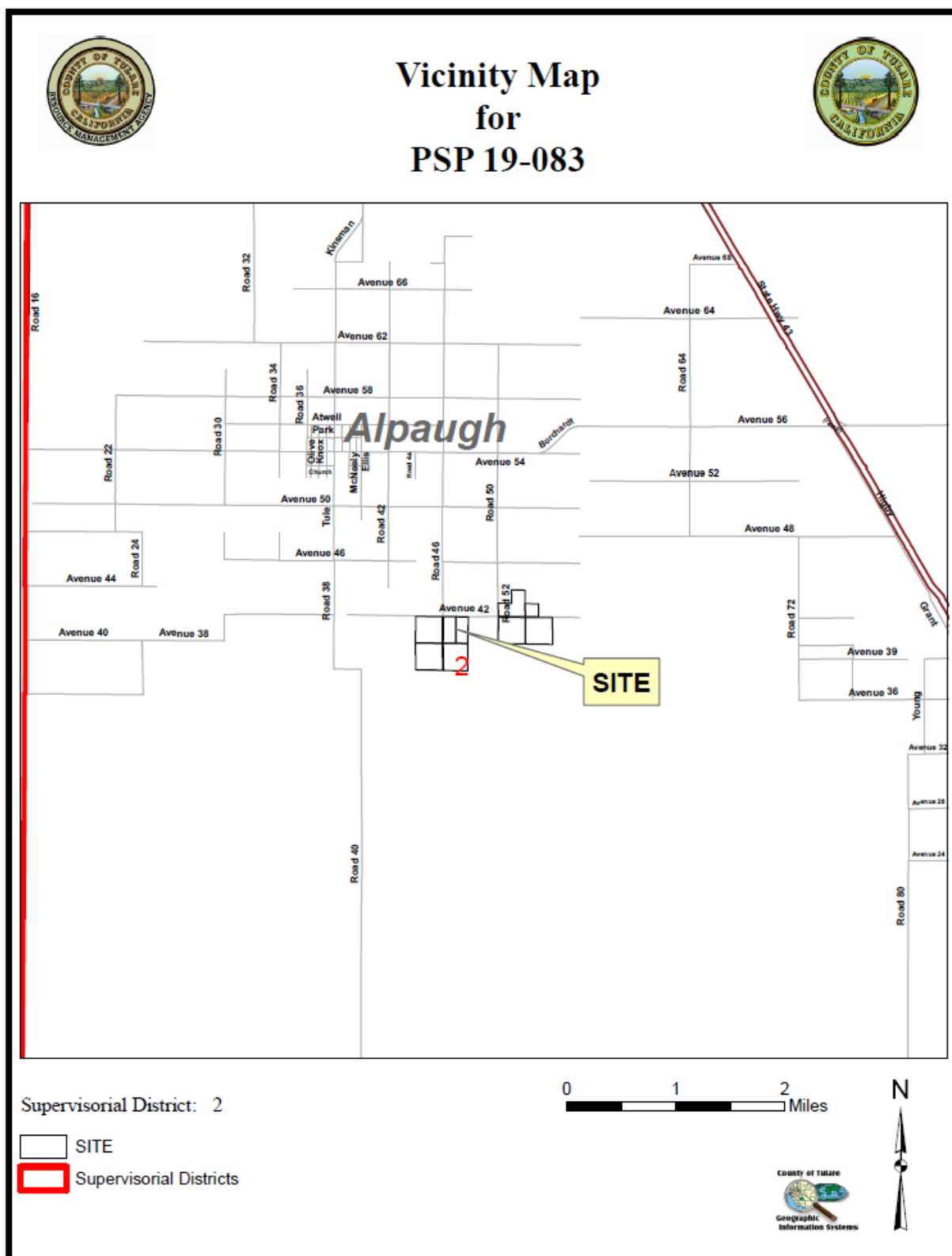
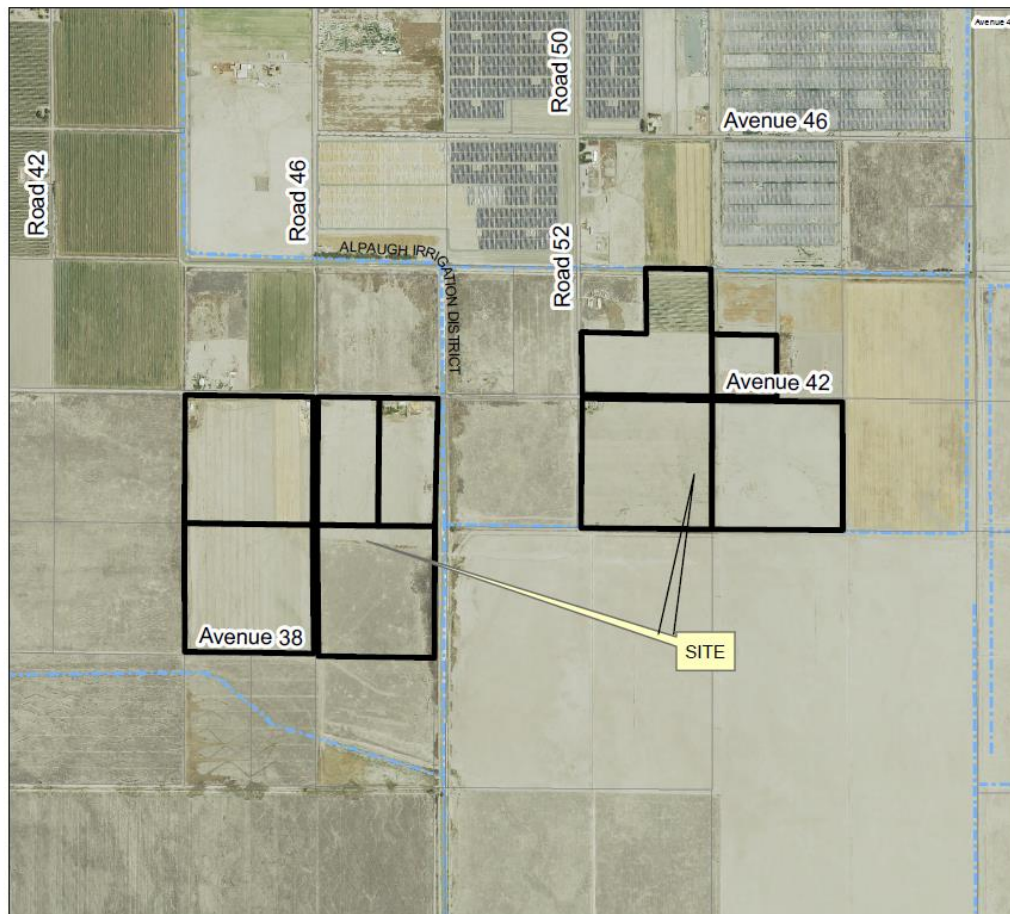


Figure 2. Project Location



Figure 3. Aerial Photograph





RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD

VISALIA, CA 93277

PHONE (559) 624-7000

FAX (559) 730-2653

Michael Washam

Reed Schenke

Sherman Dix

Economic Development and Planning

Public Works

Fiscal Services

REED SCHENKE, DIRECTOR

MICHAEL WASHAM, ASSOCIATE DIRECTOR

May 6, 2020

Robert Robinson, Co-Chairperson
Kern Valley Indian Community
P.O. Box 1010
Lake Isabella, CA 93240

RE: Project Notification Pursuant to Assembly Bill (AB) 52 for the Angela Solar Project, Special Use Permit PSP 19-083

Dear Co-Chairperson Robinson,

Pursuant to the provisions of AB 52, as the lead agency under the California Environmental Quality Act (CEQA), the County of Tulare hereby extends an invitation to consult on the California Environmental Quality Act (CEQA) review of the Angela Solar Project (PSP 19-083) Project in order to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places including:

- Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine; and
- Native American historic, cultural, or sacred site that is listed or may be eligible for listing in the California Register of Historical Resources including historic or prehistoric ruins and any burial ground, archaeological, or historic site.

In accordance with the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.), the County of Tulare Resource Management Agency (RMA) will be preparing a Mitigated Negative Declaration to evaluate the environmental effects associated with the Project.

Sacred Lands File Search

A Sacred Lands File (SLF) search through the Native American Heritage Commission (NAHC) has been requested for the Project. Results of the SLF search will be made available upon the release of the EIR for public review. However, results may be made available to your Tribal Representatives if a written request for consultation is submitted to the County within thirty (30) days of receipt of this letter or as per Executive Order N-57-20.

California Historical Resources Information System

A California Historical Resources Information System (CHRIS) records search for the project has been requested through the Southern San Joaquin Valley Information Center (SSJVIC). Results of the CHRIS search have not yet been received by the County. As such, the CHRIS search results will be made available upon the release of the MND for public review. However, the results may be made available to your Tribal Representatives if a written request for consultation is submitted to the County within thirty (30) days of receipt of this letter or as per Executive Order N-57-2.

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If the County does not receive a response to this notification, it will be presumed that your Tribe has declined the opportunity to consult on this project pursuant to AB 52.

Thank you for your consideration on this matter and please do not hesitate to contact me by phone or e-mail should you have any questions or need additional information. If you need immediate assistance and I am unavailable, please contact, Hector Guerra, Chief of Environmental Planning, by phone at (559) 624-7121, or by email at hguerra@co.tulare.ca.us.

Sincerely,



Jessica Willis
Planner IV
(559) 624-7121
JWillis@co.tulare.ca.us

Attachment: Project Notification



RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD
VISALIA, CA 93277
PHONE (559) 624-7000
FAX (559) 730-2653

Michael Washam	Economic Development and Planning
Reed Schenke	Public Works
Sherman Dix	Fiscal Services

REED SCHENKE, DIRECTOR

MICHAEL WASHAM, ASSOCIATE DIRECTOR

May 6, 2020

Julie Turner, Secretary
Kern Valley Indian Community
P. Box 1010
Lake Isabella, CA 93240

RE: Project Notification Pursuant to Assembly Bill (AB) 52 for the Angela Solar Project, Special Use Permit PSP 19-083

Dear Ms. Turner,

Pursuant to the provisions of AB 52, as the lead agency under the California Environmental Quality Act (CEQA), the County of Tulare hereby extends an invitation to consult on the California Environmental Quality Act (CEQA) review of the Angela Solar Project (PSP 19-083) Project in order to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places including:

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Sincerely,



Jessica Willis
Planner IV
(559) 624-7121
JWillis@co.tulare.ca.us

Attachment: Project Notification



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5961 SOUTH MOONEY BLVD
VISALIA, CA 93277
PHONE (559) 624-7000
FAX (559) 730-2653

Michael Washam	Economic Development and Planning
Reed Schenke	Public Works
Sherman Dix	Fiscal Services

REED SCHENKE, DIRECTOR

MICHAEL WASHAM, ASSOCIATE DIRECTOR

May 6, 2020

Brandy Kendricks
Kern Valley Indian Community
30741 Foxridge Court
Tehachapi, CA 93561

RE: Project Notification Pursuant to Assembly Bill (AB) 52 for the Angela Solar Project, Special Use Permit PSP 19-083

Dear Ms. Kendricks,

Pursuant to the provisions of AB 52, as the lead agency under the California Environmental Quality Act (CEQA), the County of Tulare hereby extends an invitation to consult on the California Environmental Quality Act (CEQA) review of the Angela Solar Project (PSP 19-083) Project in order to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places including:

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Sincerely,



Jessica Willis
Planner IV
(559) 624-7121
JWillis@co.tulare.ca.us

Attachment: Project Notification



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VISALIA, CA 93277
PHONE (559) 624-7000
FAX (559) 730-2653

Michael Washam	Economic Development and Planning
Reed Schenke	Public Works
Sherman Dix	Fiscal Services

REED SCHENKE, DIRECTOR

MICHAEL WASHAM, ASSOCIATE DIRECTOR

May 6, 2020

Leo Sisco, Chairperson
Santa Rosa Rancheria Tachi Yokut Tribe
P. O. Box 8
Lemoore, CA 93245

RE: Project Notification Pursuant to Assembly Bill (AB) 52 for the Angela Solar Project, Special Use Permit PSP 19-083

Dear Chairperson Sisco,

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Sincerely,



Jessica Willis
Planner IV
(559) 624-7121
JWillis@co.tulare.ca.us

Attachment: Project Notification



RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD

VISALIA, CA 93277

PHONE (559) 624-7000

FAX (559) 730-2653

Michael Washam

Reed Schenke

Sherman Dix

Economic Development and Planning

Public Works

Fiscal Services

REED SCHENKE, DIRECTOR

MICHAEL WASHAM, ASSOCIATE DIRECTOR

May 6, 2020

Robert Jeff, Vice-Chairperson
Santa Rosa Rancheria Tachi Yokut Tribe
P. O. Box 8
Lemoore, CA 93245

RE: Project Notification Pursuant to Assembly Bill (AB) 52 for the Angela Solar Project, Special Use Permit PSP 19-083

Dear Vice-Chairperson Jeff,

Pursuant to the provisions of AB 52, as the lead agency under the California Environmental Quality Act (CEQA), the County of Tulare hereby extends an invitation to consult on the California Environmental Quality Act (CEQA) review of the Angela Solar Project (PSP 19-083) Project in order to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places including:

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Sacred Lands File Search

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Thank you for your consideration on this matter and please do not hesitate to contact me by phone or e-mail should you have any questions or need additional information. If you need immediate assistance and I am unavailable, please contact, Hector Guerra, Chief of Environmental Planning, by phone at (559) 624-7121, or by email at hguerra@co.tulare.ca.us.

Sincerely,



Jessica Willis
Planner IV
(559) 624-7121
JWillis@co.tulare.ca.us

Attachment: Project Notification



RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD

VISALIA, CA 93277

PHONE (559) 624-7000

FAX (559) 730-2653

Michael Washam

Reed Schenke

Sherman Dix

Economic Development and Planning

Public Works

Fiscal Services

REED SCHENKE, DIRECTOR

MICHAEL WASHAM, ASSOCIATE DIRECTOR

May 6, 2020

Bianca Arias, Administrative Assistant
Santa Rosa Rancheria Tachi Yokut Tribe
P. O. Box 8
Lemoore, CA 93245

RE: Project Notification Pursuant to Assembly Bill (AB) 52 for the Angela Solar Project, Special Use Permit PSP 19-083

Dear Ms. Arias,

Pursuant to the provisions of AB 52, as the lead agency under the California Environmental Quality Act (CEQA), the County of Tulare hereby extends an invitation to consult on the California Environmental Quality Act (CEQA) review of the Angela Solar Project (PSP 19-083) Project in order to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places including:

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Sincerely,



Jessica Willis
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(559) 624-7121
JWillis@co.tulare.ca.us

Attachment: Project Notification



RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD
VISALIA, CA 93277
PHONE (559) 624-7000
FAX (559) 730-2653

Michael Washam	Economic Development and Planning
Reed Schenke	Public Works
Sherman Dix	Fiscal Services

REED SCHENKE, DIRECTOR

MICHAEL WASHAM, ASSOCIATE DIRECTOR

May 6, 2020

Shana Powers, Director
Santa Rosa Rancheria
Cultural Department
P. O. Box 8
Lemoore, CA 93245

RE: Project Notification Pursuant to Assembly Bill (AB) 52 for the Angela Solar Project, Special Use Permit PSP 19-083

Dear Ms. Powers,

Pursuant to the provisions of AB 52, as the lead agency under the California Environmental Quality Act (CEQA), the County of Tulare hereby extends an invitation to consult on the California Environmental Quality Act (CEQA) review of the Angela Solar Project (PSP 19-083) Project in order to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places including:

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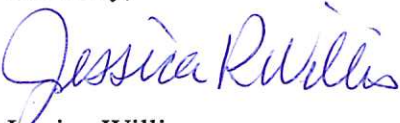
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Jessica Willis
Planner IV
(559) 624-7121
JWillis@co.tulare.ca.us

Attachment: Project Notification



RESOURCE MANAGEMENT AGENCY

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VISALIA, CA 93277
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Michael Washam	Economic Development and Planning
Reed Schenke	Public Works
Sherman Dix	Fiscal Services

REED SCHENKE, DIRECTOR

MICHAEL WASHAM, ASSOCIATE DIRECTOR

May 6, 2020

Greg Cuara, Cultural Specialist
Santa Rosa Rancheria Tachi Yokut Tribe
Cultural Department
P. O. Box 8
Lemoore, CA 93245

RE: Project Notification Pursuant to Assembly Bill (AB) 52 for the Angela Solar Project, Special Use Permit PSP 19-083

Dear Mr. Cuara,

Pursuant to the provisions of AB 52, as the lead agency under the California Environmental Quality Act (CEQA), the County of Tulare hereby extends an invitation to consult on the California Environmental Quality Act (CEQA) review of the Angela Solar Project (PSP 19-083) Project in order to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places including:

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JWillis@co.tulare.ca.us

Attachment: Project Notification



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Michael Washam	Economic Development and Planning
Reed Schenke	Public Works
Sherman Dix	Fiscal Services

REED SCHENKE, DIRECTOR

MICHAEL WASHAM, ASSOCIATE DIRECTOR

May 6, 2020

Robert L. Gomez, Jr., Chairperson
Tubatulabals of Kern Valley
P.O. Box 226
Lake Isabella, CA 93240

RE: Project Notification Pursuant to Assembly Bill (AB) 52 for the Angela Solar Project, Special Use Permit PSP 19-083

Dear Chairperson Gomez,

Pursuant to the provisions of AB 52, as the lead agency under the California Environmental Quality Act (CEQA), the County of Tulare hereby extends an invitation to consult on the California Environmental Quality Act (CEQA) review of the Angela Solar Project (PSP 19-083) Project in order to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places including:

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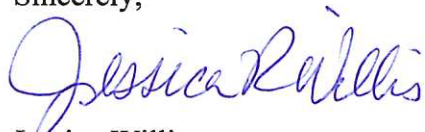
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Sincerely,



Jessica Willis
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(559) 624-7121
JWillis@co.tulare.ca.us

Attachment: Project Notification



RESOURCE MANAGEMENT AGENCY

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PHONE (559) 624-7000
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Michael Washam	Economic Development and Planning
Reed Schenke	Public Works
Sherman Dix	Fiscal Services

REED SCHENKE, DIRECTOR

MICHAEL WASHAM, ASSOCIATE DIRECTOR

May 6, 2020

Neil Peyron, Chairperson
Tule River Indian Tribe
P. O. Box 589
Porterville, CA 93258

RE: Project Notification Pursuant to Assembly Bill (AB) 52 for the Angela Solar Project, Special Use Permit PSP 19-083

Dear Chairperson Peyron,

Pursuant to the provisions of AB 52, as the lead agency under the California Environmental Quality Act (CEQA), the County of Tulare hereby extends an invitation to consult on the California Environmental Quality Act (CEQA) review of the Angela Solar Project (PSP 19-083) Project in order to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places including:

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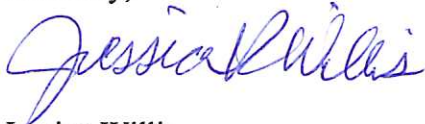
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Sincerely,



Jessica Willis
Planner IV
(559) 624-7121
JWillis@co.tulare.ca.us

Attachment: Project Notification



RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD

VISALIA, CA 93277

PHONE (559) 624-7000

FAX (559) 730-2653

Michael Washam

Reed Schenke

Sherman Dix

Economic Development and Planning

Public Works

Fiscal Services

REED SCHENKE, DIRECTOR

MICHAEL WASHAM, ASSOCIATE DIRECTOR

May 6, 2020

Kerri Vera, Director
Tule River Indian Tribe
Department of Environmental Protection
P. O. Box 589
Porterville, CA 93258

RE: Project Notification Pursuant to Assembly Bill (AB) 52 for the Angela Solar Project, Special Use Permit PSP 19-083

Dear Ms. Vera,

Pursuant to the provisions of AB 52, as the lead agency under the California Environmental Quality Act (CEQA), the County of Tulare hereby extends an invitation to consult on the California Environmental Quality Act (CEQA) review of the Angela Solar Project (PSP 19-083) Project in order to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places including:

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JWillis@co.tulare.ca.us

Attachment: Project Notification



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Michael Washam	Economic Development and Planning
Reed Schenke	Public Works
Sherman Dix	Fiscal Services

REED SCHENKE, DIRECTOR

MICHAEL WASHAM, ASSOCIATE DIRECTOR

May 6, 2020

Felix Christman, Archaeological Monitor
Tule River Indian Tribe
Department of Environmental Protection
P. O. Box 589
Porterville, CA 93258

RE: Project Notification Pursuant to Assembly Bill (AB) 52 for the Angela Solar Project, Special Use Permit PSP 19-083

Dear Mr. Christman,

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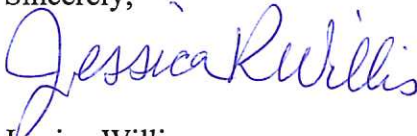
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Sincerely,

A handwritten signature in blue ink that reads "Jessica Willis". The signature is fluid and cursive, with the first name "Jessica" being more prominent than the last name "Willis".

Jessica Willis
Planner IV
(559) 624-7121
JWillis@co.tulare.ca.us

Attachment: Project Notification



RESOURCE MANAGEMENT AGENCY

5961 SOUTH MOONEY BLVD
VISALIA, CA 93277
PHONE (559) 624-7000
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Michael Washam	Economic Development and Planning
Reed Schenke	Public Works
Sherman Dix	Fiscal Services

REED SCHENKE, DIRECTOR

MICHAEL WASHAM, ASSOCIATE DIRECTOR

May 6, 2020

Kenneth Woodrow, Chairperson
Wuksache Indian Tribe/Eshom Valley Band
1179 Rock Haven Ct.
Salinas, CA 93906

RE: Project Notification Pursuant to Assembly Bill (AB) 52 for the Angela Solar Project, Special Use Permit PSP 19-083

Dear Chairperson Woodrow,

Pursuant to the provisions of AB 52, as the lead agency under the California Environmental Quality Act (CEQA), the County of Tulare hereby extends an invitation to consult on the California Environmental Quality Act (CEQA) review of the Angela Solar Project (PSP 19-083) Project in order to assist with identifying and/or preserving and/or mitigating project impacts to Native American cultural places including:

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Sincerely,



Jessica Willis
Planner IV
(559) 624-7121
JWillis@co.tulare.ca.us

Attachment: Project Notification

Attachment “D”

Comprehensive Project Description

1.0 PROJECT OVERVIEW

Angiola East, LLC (Applicant) is proposing the construction and operation of the Angela Solar Project (Project). The Project is a 40-megawatt (MW) solar generation facility that will be located on approximately 277 acres in Tulare County, California, and will primarily consist of photovoltaic (PV) panels, a single-axis tracker system, inverters and transformers, electrical cabling and communication lines, on-site switchgear, generation-tie (gen-tie) lines, access roads, and a security fence. The Project will interconnect at the Olive Substation shown in Figure 1 below. The Project may also include an 80-MWhr storage component in the form of batteries. Construction is anticipated to begin in late-2020, with the Project becoming commercially operational by 2021, for a lifespan of 35 years.

2.0 PROJECT DESCRIPTION

The Project would be designed for optimum performance and ease of maintenance. A series of PV module arrays would be mounted on racking systems typically supported by a pile-driven foundation design. The foundation design would be determined based on a full geotechnical survey. The module mounting system or racking system would be a single-axis tracker system oriented to maximize the amount of incident solar radiation absorbed over the course of the year.

Electrical connections from a series of PV arrays would be channeled to combiner boxes located throughout the solar field. Electrical current would be collected and combined prior to feeding the inverters. The solar arrays will be laid out in a common PV block design to allow adequate clearance for access roads and adequate access for maintenance.

Inverters would be consolidated in areas to minimize cable routing, trenching, and minimal electrical losses. The AC output from the inverters would be routed through an AC collection system and consolidated within system switchgear. The final output from the Project would be processed through a transformer to match the interconnection voltage. Electrical safety and protection systems would be provided to meet utility, California Independent System Operator (CAISO), and regulatory codes and standards. The energy would ultimately be delivered to the Pacific Gas and Electric (PG&E) transmission network at the Olive Substation.

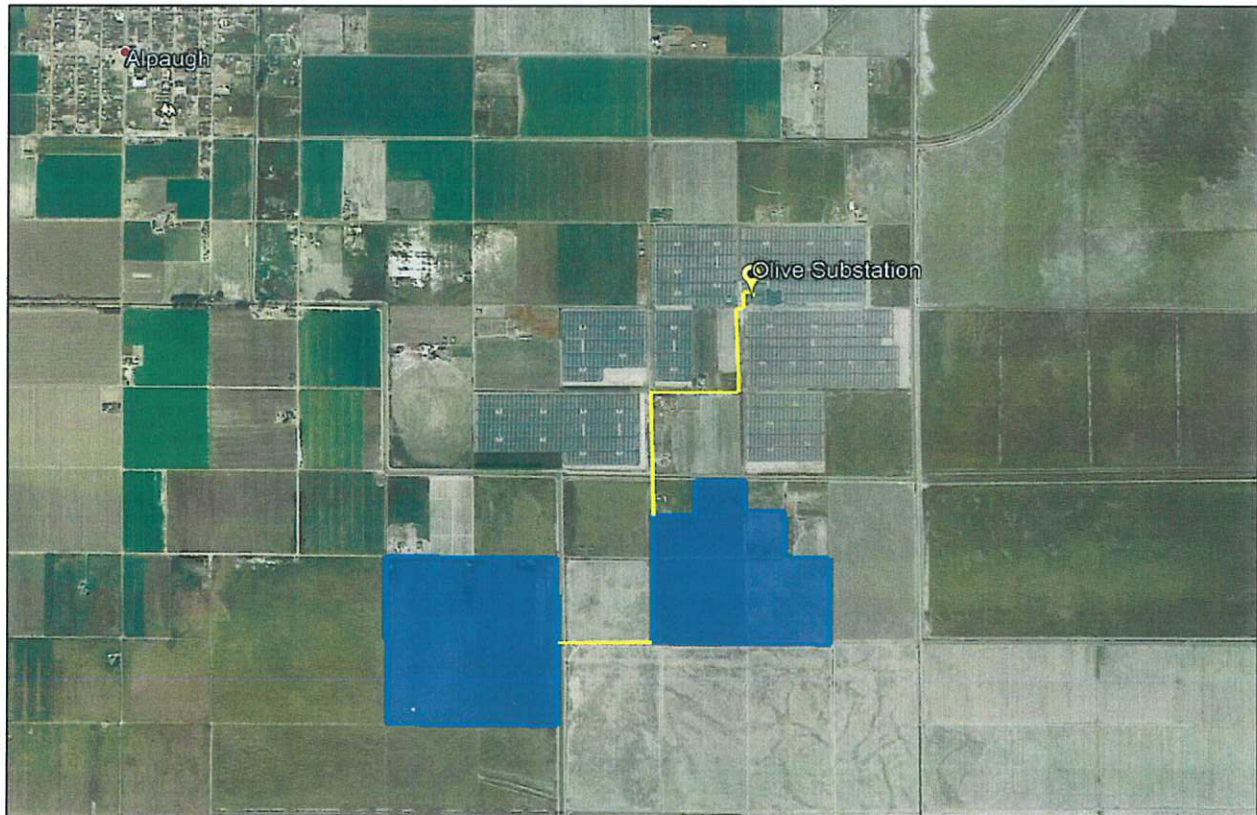
A security perimeter fence with appropriate signage for public protection would be installed. Points of ingress/egress would be accessed by locked gates for facility services and maintenance, as required.

3.0 PROJECT LOCATION

The Project will be located in the southwestern area of unincorporated Tulare County, approximately 2 miles southeast of Alpaugh. Figure 1 depicts the project boundary in blue. The Project site is divided into two boundaries and is located on the following APNs:

- 330-100-026
- 330-100-045
- 330-100-046
- 330-110-007
- 330-110-013
- 330-130-005
- 330-130-006
- 330-130-007
- 330-130-031

Figure 1
Project Location



The total area of the Project site is approximately 277 acres, or which approximately 250 acres will be developed for the panel layout. The Project will also consist of a 0.25-mile collector cable and an approximate 1-mile gen-tie line as shown in yellow on Figure 1. The collector cable and the majority of the gen-tie line will utilize existing, non-maintained County ROWs. For the portion of the gen-tie line that does not utilize existing, non-maintained ROWs, private easements will be obtained.

3.1 Zoning

The entire Project site is zoned AE-80 and APNs 330-100-045 and 330-100-046 are under Williamson Act Contract. Tulare County does not require cancellation of Williamson Act Contracts for development of solar generation facilities.

3.2 Adjacent Land Uses

- North – Vacant land, limited agriculture, irrigation canals, scattered residences, solar projects
- South – Vacant land
- West – Vacant land, limited agriculture
- East – Vacant land, scattered residences

3.3 Interconnection

The Project will interconnect at the Olive Substation owned and operated by Pacific Gas and Electric (PG&E). The proposed gen-tie route is shown in yellow in Figure 1.

3.4 Energy Storage

The Project may also include an 80-MWhr storage component in the form of batteries.

4.0 PROJECT CONSTRUCTION

Project construction would consist of three primary phases. Construction crews will range from 100 – 300 workers during the three phases of construction.

4.1 Phase 1: Site Preparation

The majority of the Project site is flat and will require minimal to no grading. A low-impact mow and roll technique would be used to remove surface vegetation, while keeping root systems in place. This practice minimizes dust generation and the associated water requirements related to dust suppression. In addition, this practice allows for faster regeneration of vegetation cover than re-seeding alone. In some areas, grubbing and grading would be required to level particularly rough areas of the site and to prepare soils for concrete foundations. Access roads would also be grubbed, graded, and compacted. The fence-line would be shallowly excavated and graded to create a level surface for proper fence installation. The site cut and fill would be balanced and all top soil would be retained and preserved on-site.

A Stormwater Pollution and Prevention Plan (SWPPP) would be prepared by a qualified engineer or erosion control specialist as a condition of approval and would be submitted to the County for review and approval before being implemented during construction. The SWPPP would be designed to reduce potential impacts related to erosion and surface water quality during construction activities and throughout the life of the Project. It would include Project information and best management practices (BMP). The BMPs would include dewatering procedures, stormwater runoff quality control measures, concrete waste management, watering for dust control, and construction of perimeter silt fences, as needed.

4.2 Phase 2: Photovoltaic Panel System Installation

The second phase of construction will include installation of steel piles, a single-axis tracker system, and the PV modules. Steel piles will be driven into the ground using pneumatic techniques, and will be approximately four (4) feet above grade. After piles have been driven, motors and torque tubes for the single-axis tracker system will be installed, followed by the PV modules being securely attached to the tracker system.

4.3 Phase 3: Inverters, Transformers, Substation, Collector System, Interconnection

Underground cables to connect panel strings would be installed using ordinary trenching techniques, which typically include a rubber-tired backhoe excavator or trencher. Wire depths would be in accordance with local, State, and Federal requirements, and would likely be buried within excavated trenches approximately 18 inches wide and four (4) feet below grade to accommodate the conduits or direct buried cables. After excavation, cable rated for direct burial or cables installed inside a polyvinyl chloride (PVC) conduit would be installed in the trench, and the excavated soil would likely be used to fill the trench and lightly compressed.

All electrical inverters and transformers would be placed on concrete foundation structures or steel skids. In lieu of steel skids or pre-cast concrete foundations, foundations for the transformer and inverter locations would be formed with plywood and reinforced with structural rebar. Commissioning of equipment would include testing, calibration of equipment, and troubleshooting. The project substation equipment, inverters, collector system, and PV array systems would be tested prior to commencement of commercial operations. Upon completion of successful testing, the equipment would be energized. The project substation area would be excavated for the transformer equipment. The site area for the project substation would be graded and compacted to level grade. The foundation for the project substation would be formed with plywood and reinforced with structural rebar. A concrete pad would be constructed as a foundation for the substation equipment, and the remaining area would be graveled. Above ground and/or below ground gen-tie lines would run from the project substation to the existing Olive Substation owned and operated by PG&E.

4.4 Waste and Recycling

Construction waste would be generated from installation of the solar arrays and related facilities. Construction waste generation is expected to be minimal and consist of mostly recyclable materials such as cardboard, steel, and electrical wiring. The Engineering, Procurement, and Construction (EPC) contractor that will be responsible for construction of the Project will carefully disassemble and recycle shipping containers and solar panel packaging to minimize solid waste impacts. The EPC contractor will contract with a waste and recycling service provider to ensure all waste generated from construction of the Project is disposed of in accordance with federal and State regulations. The EPC contractor will store, collect, and dispose of solid waste in such a manner as to prevent fire and health hazards, rodent harborage, insect breeding, accidents, and odor. The EPC contractor will ensure that no littering on the Project site or neighboring properties will occur during construction.

5.0 PROJECT OPERATIONS

Upon commissioning, the Project would enter the operational phase. For the duration of the operational phase, the Project would be operated on an unstaffed basis and monitored remotely, with regular on-site personnel visitations for security, maintenance, and system monitoring. There would be no full-time site personnel on-site during operation. As the Project's PV arrays produce electricity passively with minimal moving parts, maintenance requirements would be limited. Any required planned maintenance would be scheduled to avoid peak load periods, and

unplanned maintenance would be typically responded to as needed depending on the event. An inventory of spare components would be readily available from a remote warehouse facility.

The Project applicant will ensure consistent and effective facility operations by:

- Responding to automated alarms based on monitored data, including actual versus expected tolerances for system output and other key performance metrics
- Communicating with customers, transmission system operators and other entities involved in facility operations

5.1 Maintenance

Project maintenance performed on the site would consist of equipment inspection and replacement. Maintenance would occur during daylight hours, when possible. However, maintenance activities on the PV modules and DC systems would be typically performed at night. Maintenance program elements include:

- Managing a group of prequalified maintenance and repair firms who can meet the O&M needs of the facility throughout its life;
- Implementing a responsive, optimized cleaning schedule;
- Responding to facility emergencies and failures in a timely manner;
- Maintaining an inventory of spare parts to ensure timely repairs and consistent plant output;
- Maintaining a log to effectively record and track all maintenance problems; and
- Performing maintenance on the site as required to clear obstructive ground cover

5.2 Security

To ensure the safety of the public and the facility, the property would be fenced and signs posted. Security measures would be installed as necessary to mitigate and/or deter unauthorized access. Access to the site would be controlled and gates installed at the roads entering the property.

5.3 Fire Control

The PV modules and ancillary equipment represent a negligible fire risk. However, the applicant will work with the Tulare County Fire Department to ensure the facility meets all regulations.

5.4 Solid and Non-Hazardous Waste

The Project will produce a small amount of solid waste associated with maintenance activities. PV plant wastes may include broken and rusted metal, defective or malfunctioning modules, electrical hardware, empty containers, and other miscellaneous solid wastes, including the typical refuse generated by workers. These materials will be collected and separated for recycling where available. Any defective or broken solar modules will be returned to the manufacturer for recycling.

5.5 Hazardous Waste

The applicant anticipates the level of hazardous materials used or waste generated on the Project site to be negligible. Used biodegradable dielectric fluid and mineral oil from the transformers and miscellaneous electrical equipment are potentially hazardous materials. The spent oil would be collected and delivered to a recycling company at the time it is removed from the equipment. This material would not be stored on-site. Hazardous materials in the self-contained batteries would be returned to the manufacturer or recycled at the end of the battery life.

6.0 PROJECT DECOMMISSIONING

The applicant will decommission and remove the system and its components at the end of the life of the Project. The Project site could then be converted to other uses in accordance with applicable land use regulations in effect at that time. All decommissioning and restoration activities will adhere to the requirements of the appropriate governing authorities and will be in accordance with all applicable federal, state and Tulare County regulations. A collection and recycling program will be executed to dispose of the site materials.

Attachment “E”

Mitigation Monitoring or Reporting Program

Mitigation Monitoring and Reporting Program

Mitigation Measure		When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
						Initials	Date	Remarks
Air Quality								
AQ-1	Engine Standards for Off-Road Equipment. In order to reduce the impact of PM10 off-road equipment exhaust emissions during construction-related activities, applicant shall ensure that construction contracts stipulate that all off-road diesel-powered equipment used will be equipped with USEPA Tier 4 or cleaner engines, except for specialized equipment in which an USEPA Tier 4 engine is not available. In lieu of Tier 4 engines, project equipment can incorporate retrofits such that emissions reductions achieve equal to that of the Tier 4 engines at a minimum. The construction contractor shall submit a detailed list of the equipment fleet that demonstrates achievement of this mitigation measure to Tulare County Resource Management Agency Planning Branch for approval prior to receiving Notice to Proceed.	Prior to construction	Prior to construction	County of Tulare	Submittal of Equipment List to County of Tulare Resource Management Agency Planning Branch			
Biological Resources								
Special Status Species (General)								
BIO-1	Pre-construction Survey – Plant Species. A qualified biologist/botanist shall conduct pre-construction surveys for special status plant species in accordance with the California Department of Fish and Wildlife (CDFW) Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (2009). This protocol includes identification of reference populations to facilitate the likelihood of field investigation occurring during the appropriate floristic period. Surveys should be timed to coincide with flowering periods for species that could occur (March-May). In the absence of protocol-level surveys being performed, additional surveys may be necessary.	Prior to construction	Prior to (i) initial ground-disturbing activities in any area; (ii) restarting ground-disturbing activities in areas where no work has been occurring for 30 days or more; and (iii) starting (or restarting) decommissioning activities	County of Tulare	Retention of a qualified biologist working with USFS and/or CDFW; Submittal of Surveys to County of Tulare Resource Management Agency Planning Branch			

Mitigation Monitoring and Reporting Program

Mitigation Measure		When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
						Initials	Date	Remarks
	<ul style="list-style-type: none"> If special status plant species are not identified during pre-construction surveys, no further action is required. If special status plant species are detected during pre-construction surveys, the biologist/botanist will supervise establishment of a minimum 50-foot no disturbance buffer from the outer edge of the plant population. If buffers cannot be maintained, the Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW shall be contacted immediately to identify the appropriate minimization actions to be taken as appropriate for the species identified and to determine incidental take permitting needs. 							
BIO-2	<p><i>Pre-construction Survey – Animal Species.</i> A qualified biologist will conduct pre-construction surveys during the appropriate periods for special status animal species in accordance with the CDFW guidance and recommendations identified below. In the absence of protocol-level surveys being performed, additional surveys may be necessary. If special status animal species are not identified during pre-construction surveys, no further action is required. If special status animal species are detected during pre-construction surveys, the Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW shall be contacted immediately to identify the appropriate avoidance and minimization actions to be taken as applicable for the species identified and to determine incidental take permitting needs.</p> <ul style="list-style-type: none"> (San Joaquin kit fox) Pre-construction surveys shall be conducted no less than 14 days and no more than 30 days prior to the beginning of ground disturbance, construction activities, and/or any project activity likely to 	Prior to construction	Prior to (i) initial ground-disturbing activities in any area; (ii) restarting ground-disturbing activities in areas where no work has been occurring for 30 days or more; and (iii) starting (or restarting) decommissioning activities	County of Tulare	Retention of a qualified biologist working with USFS and/or CDFW; Submittal of Surveys to County of Tulare Resource Management Agency Planning Branch			

Mitigation Monitoring and Reporting Program

Mitigation Measure		When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
						Initials	Date	Remarks
	<p>impact the San Joaquin kit fox. These surveys will be conducted in accordance with the USFWS <i>Standard Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance</i> (2011). The survey will include the project site and where accessible, a minimum of a 200-foot area outside of project impact areas. The primary objective is to identify kit fox habitat features (e.g. potential dens and refugia) on the project site and evaluate their use by kit fox through the use of remote monitoring techniques such as motion-triggered cameras and tracking medium. If potential dens are not identified, no further action is required.</p> <ul style="list-style-type: none"> • (Nesting Raptors and Migratory Birds, including loggerhead shrike and tricolor blackbird) If Project activities must occur during the nesting season (February 1-August 31), the project proponent and/or their contractor is responsible for ensuring that implementation does not violate the Migratory Bird Treaty Act or relevant Fish and Game Code. A qualified biologist shall conduct pre-construction surveys for active bird nests within 10 days of the onset of these activities. Nest surveys will include all accessible areas on the project site and within 250 feet of the site for tricolored blackbird, loggerhead shrike and other migratory birds, and within 500 feet for all nesting raptors and migratory birds; with the exception of Swainson's hawk. The Swainson's hawk survey will utilize the Swainson's Hawk Technical Advisory Committee <i>Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley</i> (2000) methodology and will extend to ½-mile 							

Mitigation Monitoring and Reporting Program

Mitigation Measure		When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
						Initials	Date	Remarks
	<p>outside of work area boundaries. Inaccessible areas will be scanned with binoculars or spotting scope, as appropriate. If no nesting pairs are found within the survey area, no further mitigation is required.</p> <ul style="list-style-type: none"> • (Burrowing Owl) A qualified biologist shall conduct pre-construction surveys for burrowing owls burrows within 10 days of the onset of project-related construction activities. The survey will utilize the California Burrowing Owl Consortium's <i>Burrowing Owl Survey Protocol and Mitigation Guidelines</i> (1993) methodology. The survey will include all accessible areas of suitable habitat within the proposed project site and within 500 feet of project impact areas. If no burrowing owls are identified within the survey area, no further mitigation is required. • (Blunt-Nosed Leopard Lizard) A qualified biologist shall conduct a pre-construction survey to determine if suitable habitat for blunt-nosed leopard exists on the project site within 30 days of the onset of project-related construction activities. If suitable habitat is identified, the qualified biologist shall conduct further surveys utilizing the CDFW <i>Approved Survey Methodology for the Blunt-Nosed Leopard Lizard</i> (2019) methodology. If no blunt-nosed leopard lizards are identified within the survey area, no further mitigation is required. 							
BIO-3	<p>Employee Education Program. Prior to the start of construction or decommissioning, the applicant shall retain a qualified biologist/botanist to conduct a tailgate meeting to train all construction staff that will be involved with the project on the special status species that occur, or may occur, on</p>	Prior to construction	Once prior to construction- and decommissioning-related activities and as needed for the duration of	County of Tulare	Retention of a qualified biologist working with USFS and/or CFW;			

Mitigation Monitoring and Reporting Program

Mitigation Measure		When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
						Initials	Date	Remarks
	the project site. This training will include a description of the species and its habitat needs; a report of the occurrence of the species in the project area; an explanation of the status of the species and its protection under the Endangered Species Act; and a list of the measures being taken to reduce impacts to the species during project construction and implementation.		construction for new employees or if special status species are detected.		Submittal of training attendance records to County of Tulare Resource Management Agency Planning Branch			
<i>San Joaquin Kit Fox</i>								
BIO-4	Avoidance. Should an active or potential kit fox den be detected within or immediately adjacent to the area of work during pre-construction surveys, the den shall not be disturbed or destroyed. In accordance with the USFWS, Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance (2011), a minimum 50-foot no-disturbance buffer area shall be established around potential and man-made (atypical) dens and a minimum 100-foot no-disturbance buffer area shall be established around known den sites. The Sacramento Field Office of the USFWS and Fresno Field Office of the CDFW shall be contacted immediately by phone and in writing to determine the best course of action and if required, to initiate the take authorization/permit process.	During construction-, operation-, and decommissioning-related activities	Ongoing throughout construction-, operation- and decommissioning-related activities	County of Tulare	Retention of a qualified biologist working with USFS and/or CFW			
BIO-5	Minimization. Construction activities shall be carried out in a manner that minimizes disturbance to kit fox. Minimization measures include, but are not limited to: restriction of project-related vehicle traffic to established roads, construction areas, and other designated areas; inspection and covering of structures (e.g., pipes), as well as installation of escape structures, to prevent the inadvertent	During construction-, operation-, and decommissioning-related activities	Ongoing throughout construction-, operation- and decommissioning-related activities	County of Tulare	Retention of professional biologist / ongoing monitoring / submittal of Report of			

Mitigation Monitoring and Reporting Program

Mitigation Measure		When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
						Initials	Date	Remarks
	entrapment of kit foxes; restriction of rodenticide and herbicide use; and proper disposal of food items and trash.				Findings, if applicable.			
BIO-6	Mortality Reporting. The Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW will be contacted immediately by phone or email in the event of accidental death or injury of a San Joaquin kit fox during project-related activities. Notification must include the date, time, location of the incident or of the finding of a dead or injured animal, and any other pertinent information.	During construction-, operation-, and decommissioning-related activities	Ongoing as incidence occurs throughout construction-, operation- and decommissioning-related activities	County of Tulare	Retention of professional biologist / ongoing monitoring / submittal of Report of Findings, if applicable.			
<i>Nesting Raptors and Migratory Birds (including Loggerhead Shrike and Tricolored Blackbird)</i>								
BIO-7	Avoidance. In order to avoid impacts to nesting birds, construction will occur, where possible, outside the nesting season (between September 1st and January 31st).	During construction-, operation-, and decommissioning-related activities	Ongoing throughout construction-, operation- and decommissioning-related activities	County of Tulare	Retention of professional biologist / ongoing monitoring / submittal of Report of Findings, if applicable.			
BIO-8	Buffers. If active nests are found within the survey areas a qualified biologist will establish appropriate no-disturbance buffers based on species tolerance of human disturbance (for example, for tricolored blackbird, no less than 60 feet), baseline levels of disturbance, and barriers that may separate the nest from construction disturbance. These buffers will remain in place until the breeding season has ended or until the qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival.	During construction-, operation-, and decommissioning-related activities	Ongoing throughout construction-, operation- and decommissioning-related activities	County of Tulare	Retention of professional biologist / ongoing monitoring / submittal of Report of Findings, if applicable.			

Mitigation Monitoring and Reporting Program

Mitigation Measure		When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance																											
						Initials	Date	Remarks																									
BIO-9	Mortality Reporting. The Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW will be contacted immediately by phone or email in the event of accidental death or injury of a special status bird species during project-related activities. Notification must include the date, time, location of the incident or of the finding of a dead or injured animal, and any other pertinent information.	During construction-, operation-, and decommissioning-related activities	Ongoing as incidence occurs throughout construction-, operation- and decommissioning-related activities	County of Tulare	Retention of professional biologist / ongoing monitoring / submittal of Report of Findings, if applicable.																												
Burrowing Owl																																	
BIO-10	Avoidance. In order to avoid impacts to occupied burrows, individual areas within the Project site will be constructed, where possible, outside the nesting season (between September 1st and January 31st).	During construction-, operation-, and decommissioning-related activities	Ongoing throughout construction-, operation- and decommissioning-related activities	County of Tulare	Retention of professional biologist / ongoing monitoring / submittal of Report of Findings, if applicable.																												
BIO-11	Buffers. If pre-construction surveys and subsequent project activities are undertaken during the breeding season (February 1-August 31) and active nest burrows are located within or near project impact areas, a minimum 250-foot construction setback will be established around active owl nests, or alternate avoidance measures implemented in consultation with CDFW and in accordance with the CDFW Staff Report on Burrowing Owl Mitigation (2012) to employ the following: <table><tr><td>Location</td><td>Time of Year</td><td colspan="3">Level of Disturbance</td></tr><tr><td></td><td></td><td>Low</td><td>Medium</td><td>High</td></tr><tr><td>Nesting Sites</td><td>Apr 1 – Aug 15</td><td>200 m</td><td>500 m</td><td>500 m</td></tr><tr><td>Nesting Sites</td><td>Aug 16 – Oct 15</td><td>200 m</td><td>200 m</td><td>500 m</td></tr><tr><td>Nesting Sites</td><td>Oct 16 – Mar 31</td><td>50 m</td><td>100 m</td><td>500 m</td></tr></table>	Location	Time of Year	Level of Disturbance					Low	Medium	High	Nesting Sites	Apr 1 – Aug 15	200 m	500 m	500 m	Nesting Sites	Aug 16 – Oct 15	200 m	200 m	500 m	Nesting Sites	Oct 16 – Mar 31	50 m	100 m	500 m	During construction-, operation-, and decommissioning-related activities	Ongoing throughout construction-, operation- and decommissioning-related activities	County of Tulare	Retention of professional biologist / ongoing monitoring / submittal of Report of Findings, if applicable.			
Location	Time of Year	Level of Disturbance																															
		Low	Medium	High																													
Nesting Sites	Apr 1 – Aug 15	200 m	500 m	500 m																													
Nesting Sites	Aug 16 – Oct 15	200 m	200 m	500 m																													
Nesting Sites	Oct 16 – Mar 31	50 m	100 m	500 m																													

Mitigation Monitoring and Reporting Program

Mitigation Measure		When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
						Initials	Date	Remarks
	The buffer areas will be enclosed with temporary fencing to prevent construction equipment and workers from entering the setback area. Buffers will remain in place for the duration of the breeding season, unless otherwise arranged with CDFW. After the breeding season (i.e. once all young have left the nest), passive relocation of any remaining owls may take place as described below.							
BIO-12	<i>Passive Relocation of Resident Owls.</i> During the non-breeding season (September 1-January 31), resident owls occupying burrows in project impact areas may be passively relocated to alternative habitat in accordance with a relocation plan prepared by a qualified biologist. Passive relocation may include one or more of the following elements: 1) establishing a minimum 50 foot buffer around all active burrowing owl burrows, 2) removing all suitable burrows outside the 50 foot buffer and up to 160 feet outside of the impact areas as necessary, 3) installing one-way doors on all potential owl burrows within the 50 foot buffer, 4) leaving one-way doors in place for 48 hours to ensure owls have vacated the burrows, and 5) removing the doors and excavating the remaining burrows within the 50 foot buffer. Burrow exclusion is to be conducted by a qualified biologist and during non-breeding season after the burrow is confirmed empty through surveillance. Surveillance for exclusion through project site activities are to be conducted consistent with any relocation plans.	During construction-, operation-, and decommissioning-related activities	Ongoing throughout construction-, operation- and decommissioning-related activities	County of Tulare	Retention of professional biologist / ongoing monitoring / submittal of Report of Findings, if applicable.			
BIO-13	<i>Mortality Reporting.</i> The Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW will be contacted immediately by phone or email in the event of accidental death or injury of a burrowing owl during project-related activities.	During construction-, operation-, and decommissioning-related activities	Ongoing as incidence occurs throughout construction-, operation- and	County of Tulare	Retention of professional biologist / ongoing monitoring /			

Mitigation Monitoring and Reporting Program

Mitigation Measure		When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
						Initials	Date	Remarks
	Notification must include the date, time, location of the incident or of the finding of a dead or injured animal, and any other pertinent information.		decommissioning-related activities		submittal of Report of Findings, if applicable.			
<i>Blunt-nosed Leopard Lizard</i>								
BIO-14	<i>Avoidance and Minimization.</i> Construction activities shall be carried out in a manner that minimizes disturbance to blunt-nosed leopard lizard. If blunt-nosed leopard lizard are detected during pre-construction surveys, prior to the onset of project-related construction activities the Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW shall be contacted to determine the best course of action and if required, to initiate the take authorization/permit process.	During construction-, operation-, and decommissioning-related activities	Ongoing throughout construction-, operation- and decommissioning-related activities	County of Tulare	Retention of professional biologist / ongoing monitoring / submittal of Report of Findings, if applicable.			
BIO-15	<i>Mortality Reporting.</i> The Sacramento Field Office of the USFWS and the Fresno Field Office of CDFW will be contacted immediately by phone or email in the event of accidental death or injury of a blunt-nosed leopard lizard during project-related activities. Notification must include the date, time, location of the incident or of the finding of a dead or injured animal, and any other pertinent information.	During construction-, operation-, and decommissioning-related activities	Ongoing as incidence occurs throughout construction-, operation- and decommissioning-related activities	County of Tulare	Retention of professional biologist / ongoing monitoring / submittal of Report of Findings, if applicable.			
Cultural Resources								
CUL-1	If, in the course of Project construction, or operation, or decommissioning, any archaeological or historical resources are uncovered, discovered, or otherwise detected or observed, activities within fifty (50) feet of the find shall be ceased. A qualified archaeologist shall be contacted and advise the County of the site's significance. If the findings are deemed significant by the Tulare County Resources Management Agency, appropriate mitigation measures shall be required prior to any resumption of work in the affected	During construction	Ongoing throughout construction	County of Tulare	Determination by qualified archaeologist or paleontologist and consultation with County of Tulare. Also, applicable Native			

Mitigation Monitoring and Reporting Program

Mitigation Measure		When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
						Initials	Date	Remarks
	area of the proposed Project. Where feasible, mitigation achieving preservation in place will be implemented. Preservation in place may be accomplished by, but is not limited to: planning construction to avoid archaeological sites or covering archaeological sites with a layer of chemically stable soil prior to building on the site. If significant resources are encountered, the feasibility of various methods of achieving preservation in place shall be considered, and an appropriate method of achieving preservation in place shall be selected and implemented, if feasible. If preservation in place is not feasible, other mitigation shall be implemented to minimize impacts to the site, such as data recovery efforts that will adequately recover scientifically consequential information from and about the site. Mitigation shall be consistent with CEQA Guidelines section 15126.4(b)(3). An archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archeology, hereafter "qualified archaeologist," should inspect the findings within 24 hours of discovery.				American Tribe.			
CUL-2	If cultural resources are encountered during construction or land modification activities work shall stop and the County shall be notified at once to assess the nature, extent, and potential significance of any cultural resources. If such resources are determined to be significant, appropriate actions shall be determined. Depending upon the nature of the find, mitigation could involve avoidance, documentation, or other appropriate actions to be determined by a qualified archaeologist. For example, activities within 50 feet of the find shall be ceased.	During Construction	Ongoing throughout construction	County of Tulare	Determination by qualified archaeologist or paleontologist and consultation with County of Tulare. Also, applicable Native American Tribe.			

Mitigation Monitoring and Reporting Program

Mitigation Measure		When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
						Initials	Date	Remarks
	<p>If it is determined that the Project could damage a significant cultural resource, mitigation should be implemented with a preference for preservation in place, consistent with the priorities set forth in CEQA Guidelines Section 15126.4(b)(3). If avoidance is not feasible, a qualified archaeologist should prepare and implement a detailed treatment plan in consultation with the County of Tulare and, for prehistoric resources, the ethnographically associated Native American tribe. If the resource is determined to be a tribal cultural resource, as defined by Public Resources Code 21074, the County of Tulare, in consultation with the ethnographically associated Native American tribe, should, if feasible, minimize significant adverse impacts by avoiding the resource or treating the resource with culturally appropriate dignity, which includes protecting the cultural character and integrity of the resource, protecting the traditional use of the resource, and protecting the confidentiality of the resource.</p>							
CUL-3	<p>In the unlikely event of discovery or recognition of any human remains during construction-related activities, the provisions of CEQA Guidelines § 15064.5(e) shall be followed and such activities should cease within 50 feet of the find until the Tulare County Coroner has been contacted to determine that no investigation of the cause of death is required. If it is determined that the remains are Native American in origin, the Native American Heritage Commission (NAHC) will be contacted within 24 hours. The NAHC will then identify the person or persons it believes to be the most likely descendant (MLD) from the deceased Native American. The MLD would, in turn, make recommendations to the County of Tulare for the appropriate means of treating the human remains and any grave goods.</p>	During Construction	Ongoing throughout construction	County of Tulare	Determination by qualified archaeologist or paleontologist and consultation with County of Tulare. Also, applicable Native American Tribe.			

Mitigation Monitoring and Reporting Program								
Mitigation Measure		When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
						Initials	Date	Remarks
Noise								
NOI-1	Internal combustion engines shall be equipped with a muffler of a type recommended by the manufacturer.	During construction	During construction	County of Tulare	Construction contractor			
NOI-2	Construction activities, excluding activities required to occur without interruption or activities that would pose a significant safety risk to workers or citizens, shall be limited to between the daytime hours of 7:00 a.m. and 7:00 p.m.	During construction	During construction	County of Tulare	Construction contractor			
NOI-3	Portable/stationary equipment (e.g., generators, compressors) shall be located at the furthest distance from the nearest residential dwelling.	During construction	During construction	County of Tulare	Construction contractor			
NOI-4	As directed by the County resident engineer, the contractor shall implement appropriate additional noise abatement measures including, but not limited to, siting the location of stationary construction equipment away from sensitive noise receptors to the greatest extent feasible, turning off idling equipment after no more than five minutes of inactivity, and rescheduling construction activity to avoid noise-sensitive days or times.	During construction	During construction	County of Tulare	Construction contractor			
NOI-5	Use alternative pile installation techniques (e.g., drilled piles) to the extent possible.	During construction	During construction	County of Tulare	Construction contractor			
Tribal Cultural Resources								
TCR-1	<i>Tribal Monitoring.</i> Prior to any ground disturbance, a surface inspection of the site shall be conducted by a Tribal Monitor. The Tribal Cultural Staff shall monitor the site during grading activities. The Tribal Cultural Staff shall provide pre-construction briefings to supervisory personnel and any excavation contractor, which will include information on potential cultural material finds and on the procedures to be enacted if resources are found. Prior to any ground disturbance, the	Prior to start of construction-related activities	Prior to start of construction-related activities and during site grading	County of Tulare	County of Tulare and Native American Tribe			

Mitigation Monitoring and Reporting Program

Mitigation Measure		When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
						Initials	Date	Remarks
	applicant shall offer the Santa Rosa Rancheria Tachi Yokut Tribe the opportunity to provide a Native American Monitor during ground disturbing activities during both construction and decommissioning. Tribal participation would be dependent upon the availability and interest of the Tribe.							
TCR-2	<p>Stop Work. In the event that cultural resources, paleontological resource, or unique geological features are discovered during construction or decommissioning. activities shall stop within 100 feet of the find, and a qualified archeologist shall determine whether the resource requires further study. The qualified archaeologist shall determine the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with §15064.5 of the CEQA Guidelines. Mitigation measures may include avoidance, preservation in-place, recordation, additional archaeological testing, and data recovery, among other options. Any previously undiscovered resources found during construction within the Project area shall be recorded on appropriate Department of Parks and Recreation forms and evaluated for significance. No further ground disturbance shall occur in the immediate vicinity of the discovery until approved by the qualified archaeologist. Tulare County Resource Management Agency along with other relevant or Tribal officials, shall be contacted upon the discovery of cultural resources to begin coordination on the disposition of the find(s). Treatment of any significant cultural resources shall be undertaken with the approval of the Tulare County Resource Management Agency.</p>	During construction	Ongoing throughout construction	County of Tulare	Determination by qualified archaeologist or paleontologist and consultation with County of Tulare and Native American Tribe.			

Mitigation Monitoring and Reporting Program

Mitigation Measure		When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
						Initials	Date	Remarks
TCR-3	Disposition of Cultural Resources. Upon coordination with Tulare County Resource Management Agency, any archaeological artifacts recovered shall be donated to an appropriate Tribal custodian or a qualified scientific institution where they would be afforded applicable cultural resources laws and guidelines.	During construction	Ongoing throughout construction	County of Tulare	County of Tulare and Native American Tribe.			
TCR-4	<p>Treatment of Human Remains. The applicant shall follow current legal requirements at the time of discovery for the treatment of human remains. Currently, pursuant to Section 5097.98 of the California Public Resources Code (PRC) and Section 7050.56 of the California State Health and Safety Code (HSC) Section and PRC Section 5097.98, if human remains or bone remains of unknown origin are found at any time during on-or off-site construction, all work shall stop in the vicinity of the find, and the Tulare County Coroner shall be contacted immediately. If the remains are determined to be Native American, the coroner shall notify the Native American Heritage Commission (NAHC), who shall identify the person believed to be the Most Likely Descendant (MLD), who shall have at least 48 hours from notification of the find to comment.</p> <p>The Landowner and MLD, shall make all reasonable efforts to develop an agreement for the treatment of human remains and associated or unassociated funerary objects with appropriate dignity (CEQA Guidelines Sec. 15064.5(d)). The agreed upon treatment shall include appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects. If the MLD and the other parties do not agree on the reburial method, the Project shall follow PRC Section 5097.98(e) which states that "... the landowner or his or her authorized</p>	During construction	Ongoing throughout construction	County of Tulare	Determination by qualified archaeologist or paleontologist and consultation with County of Tulare and Native American Tribe.			

Mitigation Monitoring and Reporting Program

Mitigation Measure		When Monitoring is to Occur	Frequency of Monitoring	Agency Responsible for Monitoring	Method to Verify Compliance	Verification of Compliance		
						Initials	Date	Remarks
	<p>representative shall reinter the human remains and items associated with Native American burials with appropriate dignity on the property in a location not subject to further subsurface disturbance.”</p> <p>Any findings shall be submitted by the archaeologist in a professional report submitted to the project applicant, the MLD, Tulare County Resource Management Agency, and the California Historical Resources Information System, Southern San Joaquin Valley Information Center.</p> <p>The Archaeologist may assist the Tribe, if requested, but the archaeologist has no jurisdiction over human remains, and is subject to the same fines as anyone else.</p>							

California
Historical
Resources
Information
System



Fresno
Kern
Kings
Madera
Tulare

Southern San Joaquin Valley Information Center
California State University, Bakersfield
Mail Stop: 72 DOB
9001 Stockdale Highway
Bakersfield, California 93311-1022
(661) 654-2289
E-mail: ssjvic@csub.edu
Website: www.csub.edu/ssjvic

To: Jessica Willis
Tulare County Resource Management Agency
5961 South Mooney Blvd.
Visalia, CA 93277

Record Search 20-197

Date: May 19, 2020

Re: Angela Solar Project (19-083)

County: Tulare

Map(s): Allensworth 7.5'

CULTURAL RESOURCES RECORDS SEARCH

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

The following are the results of a search of the cultural resource files at the Southern San Joaquin Valley Information Center. These files include known and recorded cultural resources sites, inventory and excavation reports filed with this office, and resources listed on the National Register of Historic Places, the OHP Built Environment Resources Directory, California State Historical Landmarks, California Register of Historical Resources, California Inventory of Historic Resources, and California Points of Historical Interest. Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the OHP are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area.

PRIOR CULTURAL RESOURCE STUDIES CONDUCTED WITHIN THE PROJECT AREA AND THE ONE-HALF MILE RADIUS

According to the information in our files, there have been no previous cultural resource studies conducted within the project area. There has been one previous cultural resource study conducted within the one-half mile radius, TU-01413.

KNOWN/RECORDED CULTURAL RESOURCES WITHIN THE PROJECT AREA AND THE ONE-HALF MILE RADIUS

There are no recorded resources within the project area, and it is not known if any exist there. There is one recorded resource within the one-half mile radius, P-54-005100. This resource consists of prehistoric era lithic scatters, ceramics scatters, and habitation debris.

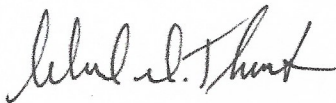
There are no recorded cultural resources within the project area or radius that are listed in the National Register of Historic Places, the California Register of Historical Resources, the California Points of Historical Interest, California Inventory of Historic Resources, or the California State Historic Landmarks.

COMMENTS AND RECOMMENDATIONS

We understand this project consists of construction of a 40 MW solar generation facility located on approximately 277 acres of vacant land zoned for agricultural use. Because a cultural resources study has not been completed on this property, it is unknown if cultural resources are present. Therefore, prior to ground disturbance activities, we recommend a qualified, professional consultant conduct a field survey of the entire project area to determine if cultural resources are present. A list of qualified consultants can be found at www.chrisinfo.org.

We also recommend that you contact the Native American Heritage Commission in Sacramento. They will provide you with a current list of Native American individuals/organizations that can assist you with information regarding cultural resources that may not be included in the CHRIS Inventory and that may be of concern to the Native groups in the area. The Commission can consult their "Sacred Lands Inventory" file in order to determine what sacred resources, if any, exist within this project area and the way in which these resources might be managed. Finally, please consult with the lead agency on this project to determine if any other cultural resource investigation is required. If you need any additional information or have any questions or concerns, please contact our office at (661) 654-2289.

By:



Digitally signed by Celeste M.
Thomson

Date: 2020.05.19 12:57:35 -07'00'

Celeste M. Thomson, Coordinator

Date: May 19, 2020

Please note that invoices for Information Center services will be sent under separate cover from the California State University, Bakersfield Accounting Office.