

NOTICE OF PREPARATION

To: Agencies, Organizations, and Interested Persons

From: County of Merced
Department of Community and Economic Development
2222 'M' Street, Merced, CA 95340

Contact: Valerie Dalley, Planner I, Community and Economic Development Department
Valerie.Dalley@countyofmerced.com
(209) 385-7654 ext. 4415

Subject: Notice of Preparation of a Draft Environmental Impact Report for the Zeta Solar and Battery Energy Storage System Project (Condition Use Permit No. CUP22-015)

Merced County is the Lead Agency pursuant to the California Environmental Quality Act (CEQA) for the proposed Zeta Solar and Battery Energy Storage System Project (Project). Merced County will prepare an Environmental Impact Report (EIR) for the Project as described below and in Attachment A. The County solicits your views as an agency, organization, and interested parties as to the scope and content of the environmental information to be provided in the EIR. Input provided by agencies should be germane to the agency's statutory responsibilities in connection with the Project. Your agency will need to use the EIR prepared by Merced County when considering your permit or other approval of the Project.

The description, location, and probable environmental effects of the Project are contained in Attachment A. All project related documents can be obtained at the Community of Economic Development Department, 2222 'M' Street, Merced, CA 95340. This information is also available for download from the Merced County Planning Department website at:

<https://www.countyofmerced.com/414/Environmental-Documents>

You are invited to view the Notice of Preparation and submit written comments regarding the scope and content of the environmental information in connection with the Project should you wish to do so. Due to time limits mandated by state law, your response must be sent at the earliest possible date, but **not later than 30 days from receipt of this notice**.

Comment Period: FRIDAY, JULY 14, 2023 THROUGH MONDAY, AUGUST 14, 2023

Please send your response to Valerie Dalley, Planner I, at the Merced County address and/or email address shown above. If submitting comments for an organization or agency, please include the name of a contact person so that we can contact you further during the EIR preparation process.

Project Title: Zeta Solar and Battery Energy Storage System

Project Location: The Project site is in unincorporated Merced County, approximately 9 miles south of Los Banos. Poleline Road abuts the southwestern Project site boundary. The California Aqueduct and U.S. Interstate 5 run parallel to the southwest Project site boundary about 300 feet and 800 feet west of the Project site, respectively.

Project Applicant: Longroad Development Company, LLC
330 Congress Street, 6th Floor
Boston, Massachusetts 02210

cc: State Clearinghouse

Attachment A

Zeta Solar Generation and Battery Energy Storage System Project

1. - PROJECT OVERVIEW

The proposed Zeta Solar and Battery Energy Storage System Project (Project) consists of a photovoltaic (PV) solar power generation facility with a battery energy storage system (BESS) that would generate up to approximately 75 megawatts (MW) of renewable electrical energy and include an energy storage capacity of up to 8 hours of 75 MW of alternative current (AC). The 650-acre Project also includes the construction of a 1,700-foot-long generation-tie (gen-tie) line to deliver power from the Project to Pacific Gas and Electric's (PG&E's) existing Mercy Springs Substation (point of interconnection).

The Project would include a solar array area surrounded by an up to 7-foot-tall security fence. Solar PV modules mounted in rows on single-axis trackers and racking equipment would occupy most of the Project site. The Project would also include, among other things, an underground direct current (DC) collector system, approximately 21 electrical equipment pads with inverters and transformers within the PV facility, an approximately 15-acre BESS with regularly spaced battery units and electrical equipment pads, underground or above-ground AC collector system, an approximately 5-acre Project substation, an approximately 1,700-foot-long 70 kilovolt (kV) gen-tie line, an approximately 0.8-acre operation and maintenance (O&M) area, including an O&M office and adjacent O&M warehouse, and access roads. As part of construction, an approximately 10-acre staging area/laydown yard would be located within the Project site and accessed via internal graveled or compacted earth access roads.

As part of the interconnection process, PG&E would install gen-tie line terminal equipment and the termination of the Project's fiber optic line and install one circuit breaker to an existing 70 kV ring bus at the Mercy Springs Switching Station.

Construction of the Project facilities would occur over 24 consecutive months. The Project would operate year-round to generate electricity from the PV facilities during daylight hours and dispatch additional electricity during either daylight or non-daylight hours, depending on the application of the BESS portion of the Project.

The Project has an anticipated operational life of approximately 40 years. At the end of the Project's operational term, the Applicant or project proponent would determine whether the Project site should be decommissioned and deconstructed or if it would seek an extension of the Project's CUP and repower the facilities. If any portion of the Project site is decommissioned, it would be restored to its pre-development function.

Non-potable water for construction and operations would be sourced from the Delta-Mendota Canal through the San Luis Water District. Potable water would be provided by the City of Los Banos during construction and operations.

2. - PROJECT LOCATION

The Project is located on privately-owned land in southwestern Merced County, approximately 9 miles south of Los Banos. The Project generation facility would occupy all or portions of three parcels identified by Merced County as Assessor Parcel Numbers (APNs) 090-130-018, 090-130-044, and 090-130-060. The gen-tie line would extend north through APN 088-180-063 to the point of interconnection in APN 090-103-059. Poleline Road abuts the southwestern Project site boundary. The California Aqueduct and U.S. Interstate 5 (I-5) run parallel to the southwest Project boundary about 300 feet and 800 feet to the west of the Project site, respectively. First Lift Canal Road lies along the western

boundary of the Project site, and the eastern boundary abuts an unnamed dirt/gravel road. The Project site consists of fallow agricultural lands, and there has been no agricultural production on the Project site for over 10 years. Land uses surrounding the Project site primarily consist of undeveloped active agricultural lands to the north, south, and east, in addition to a small (0.15-acre), developed area to the south housing a cell tower, and undeveloped, hilly grasslands used for cattle grazing to the west. The Vega Solar Project site and Dos Amigos Pumping Plant are located 1,200 feet north and 0.5 mile northwest of the Project site, respectively. A Project site plan is provided as Figure 1.

3. - EXISTING CONDITIONS

The land use designation for the Project site is Agricultural under the County General Plan. The Agricultural land use designation provides for cultivated agricultural practices which rely on good soil quality, adequate water availability, and minimal slopes. This is the largest County land use designation by area in the County and is typically applied to areas on the valley floor. The Agricultural designation also allows for the development of energy generation facilities. The Project site is also zoned Exclusive Agricultural (A-2) under the County Zoning Code. Pursuant to Zoning Code Section 18.10.020, Energy Generation Facilities including solar facilities are allowed in the A-2 zone with approval of a conditional use permit.

The Project site consists of 462.01 acres of Prime Farmland, 185.47 acres of Farmland of Local Importance, 0.65 acre of Grazing Land, and 1.77 acres of Vacant or Disturbed Land, as designated by the Department of Conservation Farmland Mapping and Monitoring Program (FMMP). According to the FMMP, the Prime Farmland Classification includes lands with the soil quality, growing season, and moisture supply needed to produce sustained high yields. However, the Project site has been subject to a Water Administration Agreement and a Restrictive Covenant Prohibiting Irrigation with the San Luis Water District (SLWD) since 2011 (recorded March 30, 2011, as instrument 2011-011545 and recorded March 30, 2011, as instrument 2011-011542, Official Records, respectively), and the land has not been irrigated since that time. As such, the surface water associated with the land has been reallocated and is not currently available for agricultural use on the Project site. Without access to surface water for irrigation, production of high-value agricultural crops is not feasible and has not occurred on the Project site for over 10 years. From 2012 to 2018, dryland plants were planted on the Project site as a weed-control measure, but these plants were not irrigated. The land laid fallow for 3 years between 2018 and 2020. Grazing sheep have been used on the Project site periodically since 2021 as a weed-control measure. The Project site is undeveloped and consists largely of patches of common wheat (not grown for harvest), along with other non-native grass species. The Project site also includes unvegetated areas, such as unpaved roads, paved roads, and sections of riprap. The Project site and surrounding land are in a relatively flat-lying plain and exhibit little topographic variation.

The Project site is not contracted under the California Land Conservation Act of 1965 (Williamson Act). However, all Project parcels except APN 090-130-044 are in the County's agricultural preserve. An Agricultural Preserve Amendment, requiring Board Approval, would be required to remove the parcels from the Agricultural Preserve and allow for development of the Project.

4. - PROJECT CHARACTERISTICS AND FACILITIES

1. PV Module Configuration

The Project would primarily consist of solar arrays that would generate electricity directly from sunlight. A solar array consists of a row of PV modules electrically connected and supported by a common tracking structure.

The modules would be mounted on single-axis trackers that rotate along a fixed axis, allowing the PV

modules to track the sun's east/west movement throughout the day. The length of each row of PV modules could be up to 365 feet along the north/south axis. The PV module currently selected for the Project would measure approximately 90 inches tall and 55 inches wide. When the PV modules are at their steepest angle of tracker rotation, the tops of the modules would be up to 12 feet above the ground, and their lower edges would be approximately 20 inches above the ground.

The PV modules would be mounted on a corrosion-resistant metal racking system and steel support posts that are driven into the ground (4–6 feet deep). Concrete foundations would not be required to stabilize the tracker structures on this Project.

The general characteristics of the final PV modules are such that they would be covered with dark, high-light-absorbing, and low-reflective glass. The final configuration of PV modules and number of modules and rows would depend on the final technology selected. Once the final composition of varying technologies is selected, the Applicant would produce an optimized layout that takes landscape features, drainage considerations, and maintenance access into account.

2. DC Collection System and Electrical Equipment Pads

Electricity produced by each PV module row would be collected by a DC collector system and delivered through conductors to electrical equipment pads with inverters and transformers. The inverters would convert the DC power to three-phase AC and deliver it to adjacent medium voltage transformers, where the power would be stepped up in voltage from the output of the solar modules (below 1500 volts) to 34.5 kV. Each electrical equipment pad would have a concrete or steel pile foundation, each approximately 20 feet by 8 feet, and would support encased units of inverters and transformers. Up to 21 electrical equipment pads would be spaced across the PV facility. In addition, the BESS would include approximately 70 electrical equipment pads, each approximately 20 feet by 8 feet.

3. AC Collector System

Electricity exiting the electrical equipment pads would be transported by a 34.5 kV AC collector system and delivered through approximately 3.5 to 4-foot-deep underground conductors or aboveground conductors to an onsite substation. The Applicant expects that most of the AC collector system would be installed underground. If an aboveground option is selected, it would consist of up to 20 wooden distribution line poles, each 35 to 55 feet tall.

4. Battery Energy Storage System

The Project would include construction of a BESS with the ability to store up to 75-MW and a discharge duration of up to 8 hours on the Project site. The BESS would be located on approximately 15 acres in the northwest part of the Project site. The BESS would consist of modular and scalable battery packs and battery control systems that conform to U.S. national safety standards. The BESS modules, which could include commercially available lithium or flow batteries, consist of modular metal structures, but may also be housed in a dedicated building(s) in compliance with applicable regulations. The maximum height of a dedicated structure is not expected to exceed 25 feet. The actual dimensions and number of energy storage modules and structures would vary depending on the application, supplier, and configuration chosen, as well as on off-taker/power purchase agreement requirements and on county building standards. Heating, ventilation, and air conditioning systems are required and would be integrated into the containers. In accordance with relevant safety standards, the containers would be equipped with appropriate fire safety systems. The BESS would include an emergency back-up generator to power the HVAC system in the unlikely event of primary power loss. The Project could use any commercially available battery technology, including but not limited to lithium ion, sodium sulfur, sodium hydride, and nickel hydride. The BESS would also include approximately 70 electrical equipment pads with inverters and transformers.

The final configuration of BESS modules and electrical equipment pads and number of BESS modules and rows would depend on the final technology selected when equipment procurement is set to commence (as soon as 2025). Once the final composition of varying technologies is selected, the Applicant would produce an optimized layout that takes landscape features, drainage considerations, and maintenance access into account.

5. Onsite Project Substation

The Project would include a new onsite Project substation located in a 5-acre area in the northwest corner of the Project site. The Project substation would consist of a new main power transformer that would increase the voltage from 34.5 kV to 70 kV. In addition, the Project substation would include 34.5 kV breakers (5 to 6 breakers for this size Project), a 70-kV breaker and switch, bus work (rigid conductors), and capacitor banks/reactors, as required. Maximum heights for this equipment would be 25 feet. Support structures and riser equipment would be up to 65 feet tall to match the height of the gen-tie line. The Project substation would also include a control building, which would be a metal-clad building approximately 12 feet by 40 feet (480 square feet). The building would be up to 25 feet tall and painted in a neutral color (e.g., beige or gray). The transformer type would be non-polychlorinated biphenyl (non-PCB) oil filled.

6. Gen-tie Line

The Project would include a new 70-kV overhead gen-tie line, which would extend approximately 1,700 feet north from the Project substation to the Mercy Springs Substation, which is the Project point of interconnection to the grid. From riser equipment in the substation area, the power would be delivered via a single-circuit conductor on up to 65-foot-tall wooden poles to the Mercy Springs Substation. The poles would be spaced approximately 250 feet apart, depending on terrain and alignment (e.g., turns would require more poles). The gen-tie would be developed within a 150-foot-wide easement.

7. Interconnection

The Mercy Springs Substation is owned and operated by PG&E. PG&E would incorporate upgrades to Mercy Springs Substation to support interconnection of the gen-tie line, including installation of a new circuit breaker and additional switches. PG&E's improvements would occur within areas previously disturbed and occupied by existing electrical facilities. Approval of the improvements would fall under the permitting jurisdiction of the California Public Utilities Commission (CPUC). Because CEQA requires analysis of the environmental impacts of the full project, the Project Description includes the interconnection upgrades, which will be addressed in the EIR.

8. Control System and Telecommunications

The Project would include an onsite Supervisory Control and Data Acquisition (SCADA) system that would allow for remote monitoring and control of inverters and other critical Project components. The SCADA system would monitor Project power output and availability and run diagnostics on the equipment. Access to the Project's SCADA system would be accomplished with wireless and/or hard-wired connections to locally available commercial service providers (e.g., a local exchange carrier). The SCADA system would be located in the O&M office and/or the Project Substation Control Building.

9. Onsite Meteorological Station

The Project would include one or more onsite solar meteorological stations (weather stations), which would consist of various sensors to measure solar energy (irradiance), air temperature, wind temperature and direction, humidity, and precipitation. Power for the meteorological stations would be provided by the plant auxiliary power system or a dedicated PV module with a small battery. Data from each sensor would be collected by the station's data-logger and transmitted to the Project's SCADA system for

monitoring and reporting purposes. The meteorological stations would likely be mounted on structures that are expandable from 6 to 15 feet in height.

10. Site Access and Access Roads

Access to the Project site would be from a new unpaved primary access road to be constructed on the west side of the Project. The primary access road would connect to the paved Poleline Road south of the Project. The main entrance gate would be in the western portion of the Project site, about 400 feet north of Poleline Road on the primary access road, and near the O&M area. A secondary access gate would be installed on the primary access road near the Project substation. Both gates would be locked, and signs would be posted to inform of the presence of high voltage equipment. Standard Merced County locks would be included on each gate to allow access for emergency vehicles. The primary access road would have a finished width of approximately 20 to 24 feet and be developed to County Road improvement standards.

The Project would include internal access roads for ingress and egress to the Project site, and for access to individual Project components and among the PV module rows to facilitate installation, maintenance, and cleaning of the solar modules. These roads would include an inner fence perimeter road; roads from the two Project entrances to the O&M area, BESS area, and Project substation; and roads to the solar arrays and electrical equipment pads. The perimeter road would function as a fire buffer, accommodate Project O&M activities, and facilitate onsite circulation for emergency vehicles. The perimeter access would be constructed in conformance with the state and Merced County design requirements for fire safety. Internal access roads running from the Project entrances to the O&M area, the BESS area, and Project substation, as well as the perimeter road, would be 20 to 24 feet wide. Both the perimeter road and primary access roads would be compacted native earth. If required, the main access roads would be graveled using approximately 8 to 12 inches of aggregate base on a compacted subgrade. The Project would include unpaved access roads between the blocks of module rows (i.e., at the ends of rows), which would be up to 16 to 25 feet wide and used to access the solar arrays, electrical equipment pads, and collector systems. In addition, the PV module rows would be spaced about 20 feet apart, creating access routes that would allow vehicle access to individual PV module locations.

Final module row spacing depends on final module selected other design considerations. The access roads would be installed during construction and remain in place during the operation phase. Final road alignments would depend on the final placement of the module rows, topography, and any other specific details to be incorporated into the final design.

11. Water Storage Tanks

One or more aboveground water storage tanks with a total capacity of up to 50,000 gallons may be placed onsite near the O&M area. The storage tank(s) near the O&M area would have the appropriate fire department connections to be used for fire suppression purposes.

12. Operation and Maintenance Structures

The Project would include an approximately 0.8-acre O&M area south of the BESS area, with an O&M office and an adjacent O&M warehouse that would be used for storage and maintenance work (Figure 2-2). The O&M office would be a modular office complex style building approximately 30 feet by 70 feet (2,100 square feet). The O&M warehouse would be a metal-clad pole barn style building approximately 40 feet by 75 feet (3,000 square feet). Both buildings would be up to 25 feet tall, and be painted in a neutral color (e.g., beige or gray). The two O&M structures would be located approximately 20 to 50 feet apart. The O&M area would include up to 10 parking spaces. The O&M office building may include an office, control room, restroom, septic tank and leach field, and electrical and communications utilities.

Roads, driveways, and parking lot entrances would be constructed in accordance with Merced County

improvement standards. Parking spaces and walkways would be constructed in conformance with all California accessibility regulations.

13. Project Site Security and Fencing

The Project site would be enclosed within a security fence measuring up to 7 feet in height from finished grade. Fence posts would be drilled and grouted or driven pneumatically depending on site-specific soil characteristics. Vehicle access gates would be installed as necessary, with the gates to remain locked when not in use.

Additionally, the Project may include additional security measures including but not limited to barbed wire, controlled access points, security alarms, security camera systems, and security guard vehicle patrols to deter trespassing and/or unauthorized activities that could interfere with operation of the Project.

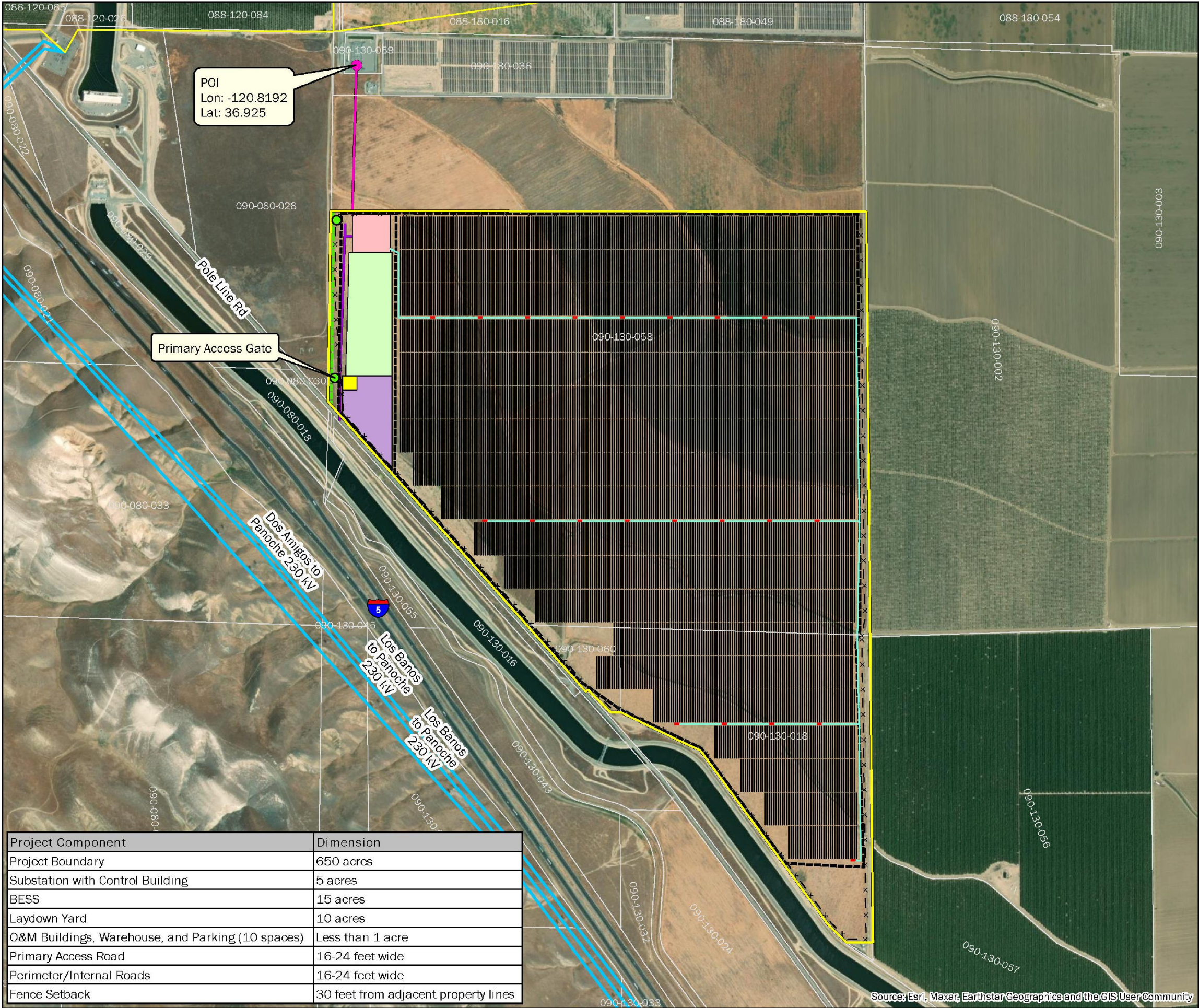
Controlled access gates would be maintained at the main entrance to the Project site. Access to the Project site would be provided to offsite emergency response teams that respond in the event of an after-hours emergency. Enclosure gates would be manually operated with a key provided in an identified key box location.

14. Project Site Lighting

The Project would include external safety lighting for both normal and emergency conditions at the main Project gate, the Project substation, the BESS area, and the O&M area. Lighting would be designed to provide the minimum illumination needed to achieve safety and security. The lights would be downward facing, motion or manually activated, and shielded to focus illumination in the immediate area. Unless there was a known risk to the Project, lighting would be placed into motion detection mode at night to limit illumination at night when not required.

2.1 POTENTIAL AREAS OF ENVIRONMENTAL IMPACT

The County has determined that an EIR is required for this Project. Therefore, in accordance with CEQA Guidelines Sections 15063(a) and 15081, the County has not prepared an Initial Study and will instead begin working directly on the EIR. The EIR will evaluate potential environmental effects of the Project and propose mitigation measures to reduce any significant effects.



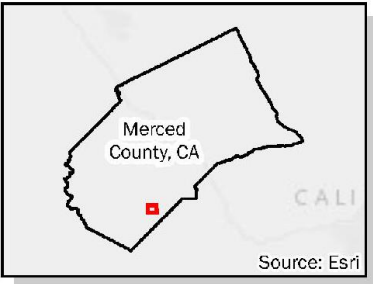
Project Location
Merced County, CA
Prepared by PG on 2023-06-08
TR by JD on 2023-06-14

Client/Project
Longroad Energy Management, LLC
Zeta Solar and Battery Energy
Storage System Project

Figure 2-2
Preliminary Site Plan

- Project Boundary (P)
- Panel Layout (P)
- Inverter and Transformer Pads (P)
- Substation with Control Building (P)
- BESS (P)
- O&M Facilities and Parking (10 spaces) (P)
- Laydown Yard (P)
- Mv Collector (P)
- Gate (P)
- × - Fence (P)
- Primary Access Road (P)
- Perimeter/Internal Roads (P)
- Utility Line (P)
- 70kV Gen Lead (P)
- Point of Interconnection (P)
- Parcel Boundary (E)
- <100 kV Transmission (E)
- 162 - 300 kV Transmission (E)

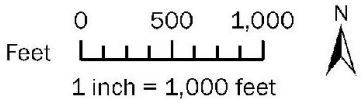
Key: (P) - Proposed
(E) - Existing



Notes

Project Parcel Number(s):
090-180-036, 090-130-058, 090-130-060, 090-130-018
Zoning: A-2: Exclusive Agricultural
(All neighboring parcels are zoned A-2: Exclusive Agricultural)
Coordinate System:
NAD 1983 StatePlane California III FIPS 0403 Feet
Date: 6/7/2023
Creator: MLS

Project Component	Dimension
Project Boundary	650 acres
Substation with Control Building	5 acres
BESS	15 acres
Laydown Yard	10 acres
O&M Buildings, Warehouse, and Parking (10 spaces)	Less than 1 acre
Primary Access Road	16-24 feet wide
Perimeter/Internal Roads	16-24 feet wide
Fence Setback	30 feet from adjacent property lines



Source: Esri, Maxar, Earthstar Geographics and the GIS User Community



**NOTICE OF SCOPING MEETING FOR THE ENVIRONMENTAL IMPACT REPORT FOR
CONDITIONAL USE PERMIT NO. CUP22-015 ("ZETA SOLAR AND BATTERY ENERGY STORAGE
SYSTEM PROJECT")**

NOTICE IS HEREBY GIVEN that the County of Merced, as lead agency under the California Environmental Quality Act (CEQA), will hold a public scoping meeting virtually on Zoom on **March 12, 2024, at 5:30 PM.** to solicit input from any interested parties on the scope and content of the EIR for or Conditional Use Permit No. CUP22-15 ("Zeta Solar and Battery Energy Storage System Project"), in conformance with Section 21083.9 of the California Public Resources Code.

To join the meeting, please visit the following link:

<https://stantec.zoom.us/joining/register/tJYqd-qorTwuHNF8xCikLQUtNGCyZaK1FkZF>

AGENCY/PUBLIC REVIEW & COMMENTS: The public scoping meeting is intended to receive input from interested parties and no decisions about the proposed project will be made at the public scoping meeting. Though staff will prepare a summary of the issues raised verbally at the public scoping meeting, anyone wishing to make formal comments on the scope of issues or content of the EIR should also do so in writing.

Comments will continue to be accepted and will be addressed in either the Draft Environmental Impact Report or Final Environmental Impact Report. Persons wishing to submit written comments are requested to do so as soon as possible. Interest persons may submit written comments via email to Tiffany Ho at Tiffany.Ho@countyofmerced.com, with the subject line: "**Comment Letter: CEQA Scoping Meeting Zeta Solar Project.**" Hand deliveries and mailed comments should be sent to the following address:

Tiffany Ho, Deputy Director of Planning
Merced County Community & Economic Development Department
2222 "M" Street
Merced, CA 95340

PROJECT DESCRIPTION: The proposed Zeta Solar and Battery Energy Storage System Project (Project) consists of a photovoltaic (PV) solar power generation facility with a battery energy storage system (BESS) that would generate up to approximately 75 megawatts (MW) of renewable electrical energy and include an energy storage capacity of up to 8 hours of 75 MW of alternative current (AC). The 650-acre Project also includes the construction of a 1,700-foot-long generation-tie (gen-tie) line to deliver power from the Project to Pacific Gas and Electric's (PG&E's) existing Mercy Springs Substation (point of interconnection).

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The full project description, location, and probable environmental effects of the Project can be found on Merced County Planning Division website at: www.countyofmerced.com/414/EnvironmentalDocuments under the "Environmental Impact Reports". Additionally, all project related documents can be obtained at the Community and Economic Development Department, 2222 'M' Street, Merced, CA 95340.

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Lift Canal Road lies along the western boundary of the Project site, and the eastern boundary abuts an unnamed dirt/gravel road. The Project site consists of fallow agricultural lands, and there has been no agricultural production on the Project site for over 10 years. Land uses surrounding the Project site primarily consist of undeveloped active agricultural lands to the north, south, and east, in addition to a small (0.15-acre), developed area to the south housing a cell tower, and undeveloped, hilly grasslands used for cattle grazing to the west. The Vega Solar Project site and Dos Amigos Pumping Plant are located 1,200 feet north and 0.5 mile northwest of the Project site, respectively. A Project site plan is provided as Figure 1.

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The land use designation for the Project site is Agricultural under the County General Plan. The Agricultural land use designation provides for cultivated agricultural practices which rely on good soil quality, adequate water availability, and minimal slopes. This is the largest County land use designation by area in the County and is typically applied to areas on the valley floor. The Agricultural designation also allows for the development of energy generation facilities. The Project site is also zoned Exclusive Agricultural (A-2) under the County Zoning Code. Pursuant to Zoning Code Section 18.10.020, Energy Generation Facilities including solar facilities are allowed in the A-2 zone with approval of a conditional use permit.

The Project site consists of 462.01 acres of Prime Farmland, 185.47 acres of Farmland of Local Importance, 0.65 acre of Grazing Land, and 1.77 acres of Vacant or Disturbed Land, as designated by the Department of Conservation Farmland Mapping and Monitoring Program (FMMP). According to the FMMP, the Prime Farmland Classification includes lands with the soil quality, growing season, and moisture supply needed to produce sustained high yields. However, the Project site has been subject to a Water Administration Agreement and a Restrictive Covenant Prohibiting Irrigation with the San Luis Water District (SLWD) since 2011 (recorded March 30, 2011, as instrument 2011-011545 and recorded March 30, 2011, as instrument 2011-011542, Official Records, respectively), and the land has not been irrigated since that time. As such, the surface water associated with the land has been reallocated and is not currently available for agricultural use on the Project site. Without access to surface water for irrigation, production of high-value agricultural crops is not feasible and has not occurred on the Project site for over 10 years. From 2012 to 2018, dryland plants were planted on the Project site as a weed-control measure, but these plants were not irrigated. The land laid fallow for 3 years between 2018 and 2020. Grazing sheep have been used on the Project site periodically since 2021 as a weed-control measure. The Project site is undeveloped and consists largely of patches of common wheat (not grown for harvest), along with other non-native grass species. The Project site also includes unvegetated areas, such as unpaved roads, paved roads, and sections of riprap. The Project site and surrounding land are in a relatively flat-lying plain and exhibit little topographic variation.

The Project site is not contracted under the California Land Conservation Act of 1965 (Williamson Act). However, all Project parcels except APN 090-130-044 are in the County's agricultural preserve. An Agricultural Preserve Amendment, requiring Board Approval, would be required to remove the parcels from the Agricultural Preserve and allow for development of the Project.

4. - PROJECT CHARACTERISTICS AND FACILITIES

1. PV Module Configuration

The Project would primarily consist of solar arrays that would generate electricity directly from sunlight. A solar array consists of a row of PV modules electrically connected and supported by a common tracking structure.

The modules would be mounted on single-axis trackers that rotate along a fixed axis, allowing the PV modules to track the sun's east/west movement throughout the day. The length of each row of PV modules could be up to 365 feet along the north/south axis. The PV module currently selected for the Project would measure approximately 90 inches tall and 55 inches wide. When the PV modules are at their steepest angle of tracker rotation, the tops of the modules would be up to 12 feet above the ground, and their lower edges would be approximately 20 inches above the ground.

The PV modules would be mounted on a corrosion-resistant metal racking system and steel support posts that are driven into the ground (4–6 feet deep). Concrete foundations would not be required to stabilize the tracker structures on this Project.

The general characteristics of the final PV modules are such that they would be covered with dark, high- light-absorbing, and low-reflective glass. The final configuration of PV modules and number of modules and rows would depend on the final technology selected. Once the final composition of varying technologies is selected, the Applicant would produce an optimized layout that takes landscape features, drainage considerations, and maintenance access into account.

2. DC Collection System and Electrical Equipment Pads

Electricity produced by each PV module row would be collected by a DC collector system and delivered through conductors to electrical equipment pads with inverters and transformers. The inverters would convert the DC power to three-phase AC and deliver it to adjacent medium voltage transformers, where the power would be stepped up in voltage from the output of the solar modules (below 1500 volts) to

34.5 kV. Each electrical equipment pad would have a concrete or steel pile foundation, each approximately 20 feet by 8 feet, and would support encased units of inverters and transformers. Up to 21 electrical equipment pads would be spaced across the PV facility. In addition, the BESS would include approximately 70 electrical equipment pads, each approximately 20 feet by 8 feet.

3. AC Collector System

Electricity exiting the electrical equipment pads would be transported by a 34.5 kV AC collector system and delivered through approximately 3.5 to 4-foot-deep underground conductors or aboveground conductors to an onsite substation. The Applicant expects that most of the AC collector system would be installed underground. If an aboveground option is selected, it would consist of up to 20 wooden distribution line poles, each 35 to 55 feet tall.

4. Battery Energy Storage System

The Project would include construction of a BESS with the ability to store up to 75-MW and a discharge duration of up to 8 hours on the Project site. The BESS would be located on approximately 15 acres in the northwest part of the Project site. The BESS would consist of modular and scalable battery packs and battery control systems that conform to U.S. national safety standards. The BESS modules, which could include commercially available lithium or flow batteries, consist of modular metal structures, but may also be housed in a dedicated building(s) in compliance with applicable regulations. The maximum height of a dedicated structure is not expected to exceed 25 feet. The actual dimensions and number of energy

storage modules and structures would vary depending on the application, supplier, and configuration chosen, as well as on off-taker/power purchase agreement requirements and on county building standards. Heating, ventilation, and air conditioning systems are required and would be integrated into the containers. In accordance with relevant safety standards, the containers would be equipped with appropriate fire safety systems. The BESS would include an emergency back-up generator to power the HVAC system in the unlikely event of primary power loss. The Project could use any commercially available battery technology, including but not limited to lithium ion, sodium sulfur, sodium hydride, and nickel hydride. The BESS would also include approximately 70 electrical equipment pads with inverters and transformers.

The final configuration of BESS modules and electrical equipment pads and number of BESS modules and rows would depend on the final technology selected when equipment procurement is set to commence (as soon as 2025). Once the final composition of varying technologies is selected, the Applicant would produce an optimized layout that takes landscape features, drainage considerations, and maintenance access into account.

5. Onsite Project Substation

The Project would include a new onsite Project substation located in a 5-acre area in the northwest corner of the Project site. The Project substation would consist of a new main power transformer that would increase the voltage from 34.5 kV to 70 kV. In addition, the Project substation would include 34.5 kV breakers (5 to 6 breakers for this size Project), a 70-kV breaker and switch, bus work (rigid conductors), and capacitor banks/reactors, as required. Maximum heights for this equipment would be 25 feet.

Support structures and riser equipment would be up to 65 feet tall to match the height of the gen-tie line. The Project substation would also include a control building, which would be a metal-clad building approximately 12 feet by 40 feet (480 square feet). The building would be up to 25 feet tall and painted in a neutral color (e.g., beige or gray). The transformer type would be non-polychlorinated biphenyl (non-PCB) oil filled.

6. Gen-tie Line

The Project would include a new 70-kV overhead gen-tie line, which would extend approximately 1,700 feet north from the Project substation to the Mercy Springs Substation, which is the Project point of interconnection to the grid. From riser equipment in the substation area, the power would be delivered via a single-circuit conductor on up to 65-foot-tall wooden poles to the Mercy Springs Substation. The poles would be spaced approximately 250 feet apart, depending on terrain and alignment (e.g., turns would require more poles). The gen-tie would be developed within a 150-foot-wide easement.

7. Interconnection

The Mercy Springs Substation is owned and operated by PG&E. PG&E would incorporate upgrades to Mercy Springs Substation to support interconnection of the gen-tie line, including installation of a new circuit breaker and additional switches. PG&E's improvements would occur within areas previously disturbed and occupied by existing electrical facilities. Approval of the improvements would fall under the permitting jurisdiction of the California Public Utilities Commission (CPUC). Because CEQA requires analysis of the environmental impacts of the full project, the Project Description includes the interconnection upgrades, which will be addressed in the EIR.

8. Control System and Telecommunications

The Project would include an onsite Supervisory Control and Data Acquisition (SCADA) system

that would allow for remote monitoring and control of inverters and other critical Project components. The SCADA system would monitor Project power output and availability and run diagnostics on the equipment. Access to the Project's SCADA system would be accomplished with wireless and/or hard-wired connections to locally available commercial service providers (e.g., a local exchange carrier). The SCADA system would be located in the O&M office and/or the Project Substation Control Building.

9. Onsite Meteorological Station

The Project would include one or more onsite solar meteorological stations (weather stations), which would consist of various sensors to measure solar energy (irradiance), air temperature, wind temperature and direction, humidity, and precipitation. Power for the meteorological stations would be provided by the plant auxiliary power system or a dedicated PV module with a small battery. Data from each sensor would be collected by the station's data-logger and transmitted to the Project's SCADA system for monitoring and reporting purposes. The meteorological stations would likely be mounted on structures that are expandable from 6 to 15 feet in height.

10. Site Access and Access Roads

Access to the Project site would be from a new unpaved primary access road to be constructed on the west side of the Project. The primary access road would connect to the paved Poleline Road south of the Project. The main entrance gate would be in the western portion of the Project site, about 400 feet north of Poleline Road on the primary access road, and near the O&M area. A secondary access gate would be installed on the primary access road near the Project substation. Both gates would be locked, and signs would be posted to inform of the presence of high voltage equipment. Standard Merced County locks would be included on each gate to allow access for emergency vehicles. The primary access road would have a finished width of approximately 20 to 24 feet and be developed to County Road improvement standards.

The Project would include internal access roads for ingress and egress to the Project site, and for access to individual Project components and among the PV module rows to facilitate installation, maintenance, and cleaning of the solar modules. These roads would include an inner fence perimeter road; roads from the two Project entrances to the O&M area, BESS area, and Project substation; and roads to the solar arrays and electrical equipment pads. The perimeter road would function as a fire buffer, accommodate Project O&M activities, and facilitate onsite circulation for emergency vehicles. The perimeter access would be constructed in conformance with the state and Merced County design requirements for fire safety. Internal access roads running from the Project entrances to the O&M area, the BESS area, and Project substation, as well as the perimeter road, would be 20 to 24 feet wide. Both the perimeter road and primary access roads would be compacted native earth. If required, the main access roads would be graveled using approximately 8 to 12 inches of aggregate base on a compacted subgrade. The Project would include unpaved access roads between the blocks of module rows (i.e., at the ends of rows), which would be up to 16 to 24 feet wide and used to access the solar arrays, electrical equipment pads, and collector systems. In addition, the PV module rows would be spaced about 20 feet apart, creating access routes that would allow vehicle access to individual PV module locations.

Final module row spacing depends on final module selected other design considerations. The access roads would be installed during construction and remain in place during the operation phase. Final road alignments would depend on the final placement of the module rows, topography, and any other specific details to be incorporated into the final design.

11. Water Storage Tanks

One or more aboveground water storage tanks with a total capacity of up to 50,000 gallons may be placed onsite near the O&M area. The storage tank(s) near the O&M area would have the appropriate fire department connections to be used for fire suppression purposes. Additionally, a potable water storage tank with a total capacity of up to 5,000 gallons would be installed onsite near the O&M building to serve potable water demands such as hand washing and toilet flushing. Wastewater would be generated by the O&M office. No wastewater would be generated during panel washing, as the water would be absorbed into the surrounding soil or would evaporate.

12. Operation and Maintenance Structures

The Project would include an approximately 0.8-acre O&M area south of the BESS area, with an O&M office and an adjacent O&M warehouse that would be used for storage and maintenance work (Figure 2- 2). The O&M office would be a modular office complex style building approximately 30 feet by 70 feet (2,100 square feet). The O&M warehouse would be a metal-clad pole barn style building approximately 40 feet by 75 feet (3,000 square feet). Both buildings would be up to 25 feet tall, and be painted in a neutral color (e.g., beige or gray). The two O&M structures would be located approximately 20 to 50 feet apart. The O&M area would include up to 10 parking spaces. The O&M office building may include an office, control room, restroom, septic tank and leach field, and electrical and communications utilities.

Roads, driveways, and parking lot entrances would be constructed in accordance with Merced County improvement standards. Parking spaces and walkways would be constructed in conformance with all California accessibility regulations.

13. Fire Safety Systems

The BESS would include appropriate fire safety systems that meet the requirements of the Local Authority Having Jurisdiction. At a minimum, these safety systems will include a mix of thermal, smoke, and gas detectors along with explosion prevention per National Fire Protection Association (NFPA) standards 68 or 69. The BESS will undergo extensive testing and will be certified to UL9540, which is a safety standard for energy storage systems. The O&M office and warehouse and substation control building will be constructed in accordance with the applicable county, state, and federal fire codes and regulations. Project Site Security and Fencing

The Project site would be enclosed within a security fence measuring up to 8 feet in height from finished grade. Fence posts would be drilled and grouted or driven pneumatically depending on site-specific soil characteristics. Vehicle access gates would be installed as necessary, with the gates to remain locked when not in use.

Additionally, the Project may include additional security measures including but not limited to barbed wire, controlled access points, security alarms, security camera systems, and security guard vehicle patrols to deter trespassing and/or unauthorized activities that could interfere with operation of the Project.

Controlled access gates would be maintained at the main entrance to the Project site. Access to the Project site would be provided to offsite emergency response teams that respond in the event of an after- hours emergency. Enclosure gates would be manually operated with a key provided in an identified key box location.

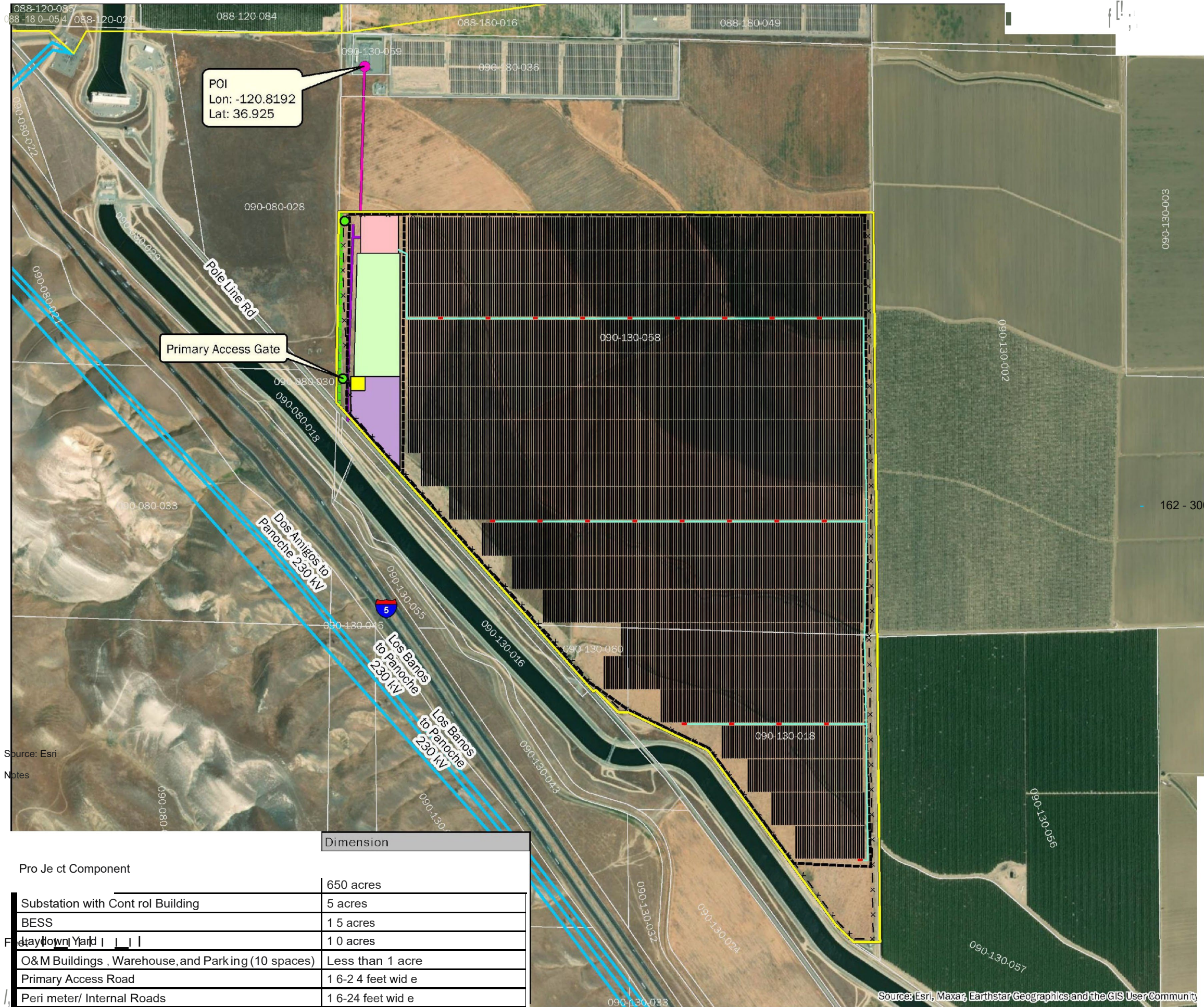
14. Project Site Lighting

The Project would include external safety lighting for both normal and emergency conditions at

the main Project gate, the Project substation, the BESS area, and the O&M area. Lighting would be designed to provide the minimum illumination needed to achieve safety and security. The lights would be downward facing, motion or manually activated, and shielded to focus illumination in the immediate area. Unless there was a known risk to the Project, lighting would be placed into motion detection mode at night to limit illumination at night when not required.

5. POTENTIAL AREAS OF ENVIRONMENTAL IMPACT

The County has determined that an EIR is required for this Project. Therefore, in accordance with CEQA Guidelines Sections 15063(a) and 15081, the County has not prepared an Initial Study and will instead begin working directly on the EIR. The EIR will evaluate potential environmental effects of the Project and propose mitigation measures to reduce any significant effects.



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Project Location
Merced County, CA

Prepared by PG on 2023-06-08
TR by JO on 2023-06-14

Client/Project

Longroad Energy Management, LLC
Zeto Solar and Battery Energy
Storage System Project

Figure 2-2
Preliminary Site Plan

Project Boundary (P)

-Panel Layout (P)

Inverter and Transformer Pads (P)

Substation with Control Building (P)

BESS(P)

O&M Facilities and Parking (10 spaces) (P)

Laydown Yard (P)

Mv Collector (P)

Gate (P)

x - Fence (P)

Primary Access Road (P)

Perimeter / Internal Roads (P)

Utility Line (P)

70k V Gen Lead (P)

Point of Interconnection (P)

Parcel Boundary (E)

<10.0 kV Transmission (E)

162 - 300 kV Transmission (E)

Key: (P) - Proposed
(E) - Existing

Merced County, CA

0 500 1,000
1 inch = 1,000 feet

N

Project Parcel Number(s):
090-180-036, 090-130-058, 090-130-060, 090-130-018
Zoning: A-2: Exclusive Agricultural
(All neighboring parcels are zoned A-2: Exclusive Agricultural)
Coordinate System:
NAD 1983 StatePlane California III FIPS 0403 Feet
Date: 6/7/2023
Creator: MLS

1 Jongroad
ENERGY

From: [Schmitz, Lori@Waterboards](mailto:Schmitz,Lori@Waterboards)
To: [Dalley, Valerie](#)
Cc: [Ramsden, Bruce@Waterboards](mailto:Ramsden,Bruce@Waterboards)
Subject: Zeta Solar and Battery Energy, Potable Water for the Project, Number of People that will be served?
Date: Thursday, August 10, 2023 11:03:30 AM

Valerie,

I am following up on the Zeta Solar and Battery Energy Project. I help out the State Water Resources Control Board, Division of Drinking water (State Water Board, DDW) with their CEQA for water supply permits. Your County's Notice of Preparation (NOP) indicated potable water would be provided by the City of Los Banos during construction and operations. However, the site is quite far from Los Banos. I checked in with the City's water system and they had not heard about the Project.

I am trying to determine if the State Water Board, DDW would have discretionary authority on this Project. Your NOP indicated that the Project may have an O & M office building with restrooms, so it seems the Project would need a permanent potable source of water that a certain number of people would be using. I was wondering, can the applicant let us know how many people would need to be served potable water for the Project?

A public water system, as defined in H & SC section 116527(h), is "a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year." A public water system requires a new water supply permit if it includes the creation of a new public water system.

Under California Health and Safety Code 11627 (e) "Human consumption" means "the use of water for drinking, bathing or showering, hand washing, oral hygiene, or cooking, including, but not limited to, preparing food and washing dishes."

Note, H & SC section 116527(b), effective January 1, 2017, also requires that any person submitting a permit application for a proposed new public water system must first submit a technical report at least six months before initiating construction of any drinking water related improvements. The technical report must include an examination of the possibility of consolidation with an existing public water system or consolidation of multiple proposed public water systems.

If the applicant will be serving more than 25 individuals per day and will be creating a new water system, we would have discretionary authority on this Project.

Please let us know how many people the applicant plans to be serving portable water to on site. This could be through break rooms, bathrooms, et cetera.

No matter that number they should also think about and talk with nearby systems to determine if they are willing to serve the Project or after exhausting all other options, need to create their own system.

Thanks for letting me know about this number, to help us in further understanding if we could have discretionary authority on the Project.

Lori Schmitz

Lori Schmitz
State Water Resources Control Board
Division of Financial Assistance
Special Project Review Unit
Lori.Schmitz@waterboards.ca.gov



AUGUST 11, 2023

VIA EMAIL: VALERIE.DALLEY@COUNTYOFMERCED.COM

COUNTY OF MERCED

COMMUNITY AND ECONOMIC DEVELOPMENT DEPARTMENT

VALERIE DALLEY, PLANNER I

2222 'M' STREET

MERCED, CA 95340

Dear Ms. Valerie Dalley:

NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE ZETA SOLAR AND BATTERY ENERGY STORAGE SYSTEM PROJECT, SCH# 2023070088

The Department of Conservation's (Department) Division of Land Resource Protection (Division) has reviewed the Notice of Preparation of a Draft Environmental Impact Report for the Zeta Solar and Battery Energy Storage System Project (Project).

The Division monitors and maps farmland conversion on a statewide basis, provides technical assistance regarding the Williamson Act, and administers various agricultural land conservation programs. Public Resources Code, section 614, subdivision (b) authorizes the Department to provide soil conservation advisory services to local governments, including review of CEQA documents.

Protection of the state's agricultural land resources is part of the Department's mission and central to many of its programs. The CEQA process gives the Department an opportunity to acknowledge the value of the resource, identify areas of Department interest, and offer information on how to assess potential impacts or mitigation opportunities.

The Department respects local decision-making by informing the CEQA process, and is not taking a position or providing legal or policy interpretation.

We offer the following comments for consideration with respect to the project's potential impacts on agricultural land and resources within the Department's purview.

PROJECT ATTRIBUTES

The proposed Zeta Solar and Battery Energy Storage System Project consists of a photovoltaic (PV) solar power generation facility with a battery energy storage system (BESS) that would generate up to approximately 75 megawatts (MW) of renewable electrical energy and include an energy storage capacity of up to 8 hours of 75 MW of alternative current (AC). The 650-acre Project also includes the construction of a 1,700-

foot-long generation-tie (gen-tie) line to deliver power from the Project to Pacific Gas and Electric's (PG&E's) existing Mercy Springs Substation. The project site contains Prime Farmland as designated by DOC's Farmland Mapping and Monitoring Program. The Department is not aware of any Williamson Act contracts on the proposed project site.

PROJECT CONSIDERATIONS

The conversion of agricultural land represents a permanent reduction and impact to California's agricultural land resources. The Department generally advises discussion of the following in any environmental review for the loss or conversion of agricultural land:

- Type, amount, and location of farmland conversion resulting directly and indirectly from implementation of the proposed project.
- Impacts on any current and future agricultural operations in the vicinity; e.g., land-use conflicts, increases in land values and taxes, loss of agricultural support infrastructure such as processing facilities, etc.
- Incremental impacts leading to cumulative impacts on agricultural land. This would include impacts from the proposed project, as well as impacts from past, current, and likely future projects.
- Proposed mitigation measures for impacted agricultural lands within the proposed project area.

MITIGATING AGRICULTURAL LAND LOSS OR CONVERSION

Consistent with CEQA Guidelines, the Department advises that the environmental review address mitigation for the loss or conversion of agricultural land. An agricultural conservation easement is one potential method for mitigating loss or conversion of agricultural land. (See Cal. Code Regs., tit. 14, § 15370 [mitigation includes "compensating for the impact by replacing or providing substitute resources or environments, including through permanent protection of such resources in the form of conservation easements."]; see also *King and Gardiner Farms, LLC v. County of Kern* (2020) 45 Cal.App.5th 814.)

Mitigation through agricultural conservation easements can take at least two forms: the outright purchase of easements or the donation of mitigation fees to a local, regional, or statewide organization or agency whose purpose includes the acquisition and stewardship of agricultural easements. The conversion of agricultural land may be viewed as an impact of at least regional significance. Hence, the search for replacement lands may not need to be limited strictly to lands within the project's surrounding area.

A helpful source for regional and statewide agricultural mitigation banks is the California Council of Land Trusts. They provide helpful insight into farmland mitigation policies and implementation strategies, including a guidebook with model policies and a model local ordinance. The guidebook can be found at:

[California Council of Land Trusts](#)

Of course, the use of conservation easements is only one form of mitigation, and the Department urges consideration of any other feasible measures necessary to mitigate project impacts.

Thank you for giving us the opportunity to comment on the Notice of Preparation of a Draft Environmental Impact Report for the Zeta Solar and Battery Energy Storage System Project. Please provide the Department with notices of any future hearing dates as well as any staff reports pertaining to this project. If you have any questions regarding our comments, please contact Farl Grundy, Associate Environmental Planner via email at Farl.Grundy@conservation.ca.gov.

Sincerely,

Monique Wilber

Monique Wilber

Conservation Program Support Supervisor



State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Central Region
1234 East Shaw Avenue
Fresno, California 93710
(559) 243-4005
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



August 14, 2023

Valerie Dalley
County of Merced Department of Community and Economic Development
2222 M Street
Merced, California 95340
(209) 385-7654
Valerie.Dalley@countyofmerced.com

Subject: **Zeta Solar Generation and Battery Energy Storage System Project
Notice of Preparation (NOP)
State Clearinghouse No. 2023070088**

Dear Valerie Dalley:

The California Department of Fish and Wildlife (CDFW) received a Notice of Preparation (NOP) for an Environmental Impact Report (EIR) from the County of Merced Department of Community and Economic Development (County of Merced), as Lead Agency, for the Zeta Solar Generation and Battery Energy Storage System Project (Project) pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.¹

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, CDFW appreciates the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW ROLE

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statute for all the people of the State (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for

¹ CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

Valerie Dalley
County of Merced Department of Community and Economic Development
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biologically sustainable populations of those species (*Id.*, § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW is also submitting comments as a **Responsible Agency** under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 et seq.). Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), related authorization as provided by the Fish and Game Code will be required.

Fully Protected Species: CDFW has jurisdiction over fully protected species of birds, mammals, amphibians and reptiles, and fish, pursuant to Fish and Game Code sections 3511, 4700, 5050, and 5515. Take of any fully protected species was previously prohibited and CDFW was not able to authorize their incidental take. Senate Bill No. 147 (SB 147), which became effective on July 1, 2023, amended Fish and Game Code sections 3511, 4700, 5050, and 5515 to authorize CDFW to issue a permit under CESA that authorizes the take of a fully protected species resulting from impacts attributable to the implementation of specified projects, which includes industrial solar photovoltaic projects, if certain conditions are satisfied.

Nesting Birds: CDFW has jurisdiction over actions with potential to result in the disturbance or destruction of active nest sites or the unauthorized take of birds. Fish and Game Code sections that protect birds, their eggs, and nests include 3503 (regarding unlawful take, possession or needless destruction of the nest or eggs of any bird), 3503.5 (regarding the take, possession or destruction of any birds-of-prey or their nests or eggs), and 3513 (regarding unlawful take of any migratory nongame bird).

Unlisted Species: Species of plants and animals need not be officially listed as Endangered, Rare, or Threatened (E, R, or T) on any State or Federal list to be considered E, R, or T under CEQA. If a species can be shown to meet the criteria for E, R, or T, as specified in the CEQA Guidelines section 15380, CDFW recommends it be fully considered in the environmental analysis for the Project.

As a responsible agency, CDFW is responsible for providing, as available, biological expertise during public agency environmental review efforts (e.g., CEQA), focusing specifically on project activities that have the potential to adversely affect fish and

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County of Merced Department of Community and Economic Development
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wildlife resources. CDFW provides recommendations to identify potential impacts and possible measures to avoid or reduce those impacts.

PROJECT DESCRIPTION SUMMARY

Proponent: Longroad Development Company, LLC

Objective: The Project proposes to construct and operate a photovoltaic solar power generation facility with a battery energy storage system (BESS) that would generate up to approximately 75 megawatts (MW) of renewable electrical energy and include an energy storage capacity of up to 8 hours of 75 MW. The 650-acre Project also includes the construction of a 1,700-foot-long generation-tie line to deliver power from the Project to Pacific Gas and Electric's existing Mercy Springs Substation.

Location: The Project is located on privately-owned land in southwestern Merced County, approximately 9 miles south of Los Banos. The Project generation facility would occupy all or portions of three parcels identified by Merced County as Assessor Parcel Numbers (APNs) 090-130-018, 090-130-044, and 090-130-060. The gen-tie line would extend north through APN 088-180-063 to the point of interconnection in APN 090-103-059. Poleline Road abuts the southwestern Project site boundary. The California Aqueduct and U.S. Interstate 5 (I-5) run parallel to the southwest Project boundary about 300 feet and 800 feet to the west of the Project site, respectively. First Lift Canal Road lies along the western boundary of the Project site, and the eastern boundary abuts an unnamed dirt/gravel road.

Timeframe: Undetermined.

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist the County of Merced in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct, and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the Draft EIR.

Aerial imagery of the Project boundary and its surroundings show the area contains several natural and agricultural habitats including annual grassland, cultivated wheat, and fallow fields, which may have suitable habitat for special status species. Based on a review of the Project description, a review of California Natural Diversity Database (CNDDB) records, and the surrounding habitat, several special status species could potentially be impacted by Project activities.

The Project site is within the geographic range of several special status animal species including the State and federally endangered giant kangaroo rat (*Dipodomys ingens*);

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 County of Merced Department of Community and Economic Development
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the State threatened San Joaquin [Nelson's] antelope squirrel (*Ammospermophilus nelsoni*); the State threatened and federally endangered San Joaquin kit fox (*Vulpes macrotis mutica*); the State fully protected golden eagle (*Aquila chrysaetos*); the State threatened Swainson's hawk (*Buteo swainsoni*) and tricolored blackbird (*Agelaius tricolor*); the State fully protected and endangered, and federally endangered, blunt-nosed leopard lizard (*Gambelia sila*); the State candidate for listing as endangered Crotch's bumble bee (*Bombus crotchii*); the State species of special concern American badger (*Taxidea taxus*), burrowing owl (*Athene cunicularia*), mountain plover (*Charadrius montanus*), northern harrier (*Circus hudsonius*), San Joaquin coachwhip (*Masticophis flagellum ruddocki*), and western spadefoot (*Spea hammondi*); and the State watch list species cackling [Aleutian Canada] goose (*Branta hutchinsii leucopareia*), California horned lark (*Eremophila alpestris actia*), and prairie falcon (*Falco mexicanus*).

Additionally, the Project site is within the geographic range of several special status plant species including the California Rare Plant Rank (CRPR) 1B.2 California alkali grass (*Puccinellia simplex*); the CRPR 1B.1 hispid salty bird's-beak (*Chloropyron molle ssp. hispidum*); the CRPR 4.2 Hoover's eriastrum (*Eriastrum hooveri*); and the CRPR 1B.2 Lemmon's jewelflower (*Caulanthus lemmonii*) and recurved larkspur (*Delphinium recurvatum*). Finally, the Project is within the geographic range of many migratory and non-migratory nesting birds.

Giant Kangaroo Rat

The Project site is within the known geographic range of giant kangaroo rat (GKR) and there is a historical occurrence approximately 1.5 miles southeast of the Project (CDFW 2023a). GKR are known to inhabit areas with sandy-loam soils with gentle slopes vegetated with annual grasses and scattered shrubs (ESRP 2020). As noted in the NOP, the Project site contains a mix of native and non-native grasses and has not had active crop cultivation since 2018. As such, GKR have the potential to occupy the habitats within the Project site.

CDFW recommends that a qualified biologist conduct a habitat assessment for GKR within the Project site as part of the biological studies conducted in support of the Draft EIR. If suitable habitat is determined to be present, CDFW recommends that a qualified wildlife biologist conduct focused protocol-level trapping surveys for GKR as part of the biological studies conducted in support of the Draft EIR. Prior to conducting these surveys, CDFW recommends that a trapping plan for determining presence of GKR and surveyor qualifications be submitted to and approved by CDFW. If surveys indicate the presence or potential presence of GKR, and reasonable measures to avoid take are not feasible, CDFW recommends the Project obtain take authorization through the acquisition of an Incidental Take Permit (ITP), pursuant to Fish and Game Code section 2081 subdivision (b) to comply with CESA.

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San Joaquin [Nelson's] Antelope Squirrel

The Project site is within the known geographic range of San Joaquin [Nelson's] antelope squirrel (SJAS) and there is a historical occurrence located approximately one mile south of the Project (CDFW 2023a). Suitable SJAS habitat includes areas of grassland, upland scrub, and alkali sink habitats that contain requisite habitat elements, such as small mammal burrows. As noted in the NOP, the Project site contains a mix of native and non-native grasses and has not had active crop cultivation since 2018. As such, SJAS have the potential to occupy the habitats within the Project site.

CDFW recommends that a qualified biologist conduct a habitat assessment for SJAS within the Project site as part of the biological studies conducted in support of the Draft EIR. If suitable habitat is determined to be present, CDFW recommends that a qualified biologist conduct focused daytime visual surveys for SJAS in areas of suitable habitat as part of the biological studies conducted in support of the Draft EIR. If surveys indicate the presence or potential presence of SJAS, and reasonable measures to avoid take are not feasible, CDFW recommends the Project obtain take authorization through the acquisition of an ITP, pursuant to Fish and Game Code section 2081 subdivision (b) to comply with CESA.

San Joaquin Kit Fox

The Project site is within the known geographic range of San Joaquin kit fox (SJKF), a historical occurrence is present within the Project footprint, and multiple recent occurrences have been documented within the immediate project vicinity (CDFW 2023a). SJKF den in a variety of areas such as arid grassland and alkali scrub/shrub habitats in open areas with sandy soils (Grinnel et al. 1937), agricultural and fallow/ruderal habitat, and dry stream channels, and populations can fluctuate over time. SJKF may be attracted to Project sites due to the type and level of ground disturbing activities and the loose, friable soils resulting from intensive ground disturbance. Based on aerial imagery and the information provided in the NOP, most of the Project site contains suitable habitat for SJKF denning and foraging.

As SJKF have a high potential to den and/or forage within the Project site and have been documented within the Project footprint, CDFW recommends that a qualified biologist assess the presence/absence of SJKF by conducting focused surveys to detect SJKF and their sign in all Project sites and a 500-foot buffer of Project sites as part of the biological studies conducted in support of the Draft EIR. In addition to the focused SJKF surveys, CDFW recommends the Draft EIR include the following measures:

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Recommended Mitigation Measure 1: SJKF Avoidance Buffer

CDFW recommends implementing no-disturbance buffers, as described in the USFWS' "Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance" (2011) (USFWS Protocol) around potentially suitable or known SJKF den sites. If the no-disturbance buffers outlined in the USFWS Protocol cannot be maintained, then consultation with CDFW is warranted to determine if the Project can avoid take or if take authorization is necessary as described below.

Recommended Mitigation Measure 2: SJKF Take Authorization

If the no-disturbance buffers outlined in the USFWS Protocol for SJKF are not feasible, CDFW recommends that consultation with CDFW occur to discuss how to implement the Project and avoid take. If take cannot be avoided, take authorization through the acquisition of an ITP, pursuant to Fish and Game Code section 2081 subdivision (b) is necessary to comply with CESA.

Golden Eagle

The fully protected golden eagle has the potential to nest and/or forage in the Project vicinity (CDFW 2023a). CDFW recommends that a qualified biologist conduct a habitat assessment for fully protected raptors within the Project site and a 0.5-mile buffer surrounding the Project site as part of the biological studies conducted in support of the Draft EIR. If suitable habitat is determined to be present, CDFW recommends that focused surveys be conducted for golden eagle, and that surveys be conducted in accordance with protocols developed by the United States Fish and Wildlife Service (USFWS 2010) for golden eagle, as part of the biological technical studies. If surveys indicate the presence or potential presence of fully protected raptors, consultation with the CDFW is recommended for guidance on the development of take avoidance measures. If reasonable measures to avoid take are not feasible, CDFW recommends seeking take authorization through the acquisition of an ITP, pursuant to Fish and Game Code section 2081(b) and as authorized by SB 147.

Swainson's Hawk

The Project is within the known geographic range of Swainson's hawk (SWHA), and a recent occurrence has been documented approximately 1.8 miles northwest of the Project site (CDFW 2023a). SWHA are known to breed within the Central Valley of California and prefer to nest and forage in alfalfa, fallow fields, field crops, and grassland habitats with a sufficient source of small mammals (CDFG 1994). Based on aerial imagery and the information provided in the NOP, most of the Project site

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contains suitable habitat for SWHA foraging. In addition, there are trees and structures located within the vicinity of the Project site that may provide suitable nesting habitat.

As SWHA have a high potential to use the Project site and have been documented within the Project vicinity, CDFW recommends that a qualified wildlife biologist conduct surveys for nesting SWHA following the entire survey methodology developed by the SWHA Technical Advisory Committee (SWHA TAC 2000) as part of the biological technical studies conducted in support of the Draft EIR.

In addition to conducting SWHA surveys, CDFW recommends the Project mitigate for loss of SWHA foraging habitat as described in Recommended Mitigation Measure 6 below. In addition, CDFW recommends the Draft EIR include the following measures:

Recommended Mitigation Measure 3: SWHA Surveys Prior to Construction

Depending on the time between the initial survey efforts conducted in support of the Draft EIR and project construction, CDFW recommends that additional surveys, following the survey methodology developed by the SWHA Technical Advisory Committee, be repeated the survey season immediately prior to construction.

Recommended Mitigation Measure 4: SWHA Avoidance Buffer

If Project-specific activities will take place during the SWHA nesting season (i.e., March 1 through September 15), and active SWHA nests are present, CDFW recommends a minimum ½-mile no-disturbance buffer be delineated and maintained around each nest, regardless of whether it was detected by surveys or observed incidentally. These buffers would remain in place until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival, to prevent nest abandonment and other take of SWHA as a result of Project activities.

Recommended Mitigation Measure 5: SWHA Take Authorization

CDFW also recommends that in the event an active SWHA nest is detected, and a ½-mile no-disturbance buffer is not feasible, consultation with CDFW is warranted to discuss how to implement the project and avoid take. If take cannot be avoided, take authorization through the acquisition of an ITP, pursuant to Fish and Game Code section 2081 subdivision (b) is necessary to comply with CESA.

Recommended Mitigation Measure 6: SWHA Foraging Habitat Mitigation

Finally, CDFW recommends compensation for the loss of SWHA foraging habitat as described in CDFW's "Staff Report Regarding Mitigation for Impacts to Swainson's

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Hawks” (CDFG 1994) to reduce impacts to foraging habitat to less than significant. The Staff Report recommends that mitigation for habitat loss occur within a minimum distance of 10 miles from known nest sites. CDFW has the following recommendations based on the Staff Report:

- For projects within 1 mile of an active nest tree, a minimum of 1 acre of habitat management (HM) land for each acre of development is advised.
- For projects within 5 miles of an active nest but greater than 1 mile, a minimum of $\frac{3}{4}$ acre of HM land for each acre of development is advised.
- For projects within 10 miles of an active nest tree but greater than 5 miles from an active nest tree, a minimum of $\frac{1}{2}$ acre of HM land for each acre of development is advised.

Tricolored Blackbird

The Project site is within the known geographic range of tricolored blackbird (TRBL) and a historical occurrence has been approximately 3.3 miles northeast of the Project site (CDFW 2023a). TRBL breed within the vicinity of fresh water, primarily in marshy areas. Important sites for nesting colonies include heavy growths of cattails, tules, thistles, willows, blackberries, mustard, nettles, and salt cedar. They typically forage within flooded lands, grassy fields, and margins of ponds (Grinnel and Miller 1944). Based on aerial imagery and the information provided in the NOP, the grassland habitats within the Project site could provide potential foraging habitat.

CDFW recommends that a qualified biologist conduct a habitat assessment as part of the biological technical studies conducted in support of the Draft EIR. If potentially suitable habitat is identified, consultation with CDFW is recommended for guidance on focused survey methods and mitigation measures such avoidance, take authorization, and mitigation.

Blunt-nosed Leopard Lizard

The Project site is within the known geographic range of blunt-nosed leopard lizard (BNLL), and historical occurrences have been documented directly west of the Project site on the west side of I-5 (CDFW 2023a). Suitable BNLL habitat includes areas of grassland and upland scrub that contain requisite habitat elements, such as small mammal burrows. BNLL also use open space patches between suitable habitats, including disturbed sites, unpaved access roadways, and canals. As noted in the NOP, the Project site contains a mix of native and non-native grasses and has not had active crop cultivation since 2018. As such, BNLL could potentially occupy the habitats within the Project site.

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As BNLL have the potential to occupy the Project site and have been documented within the Project vicinity, CDFW recommends that a qualified biologist conduct protocol surveys in accordance with the “Approved Survey Methodology for the Blunt-nosed Leopard Lizard” (CDFW 2019) as part of the biological technical studies conducted in support of the Draft EIR. This survey protocol, designed to optimize BNLL detectability, reasonably assures CDFW that ground disturbance will not result in take of this fully protected species.

In addition to conducting BNLL surveys, CDFW recommends the Draft EIR include the following measures:

Recommended Mitigation Measure 7: BNLL Surveys Prior to Construction

Depending on the time between the initial survey efforts conducted in support of the Draft EIR and project construction, CDFW recommends that additional surveys, following the “Approved Survey Methodology for the Blunt-nosed Leopard Lizard” (CDFW 2019) survey methodology be repeated the survey season immediately prior to construction.

Recommended Mitigation Measure 8: BNLL Avoidance Buffer

CDFW recommends that any BNLL detection, known or potentially occupied burrows, or egg clutch sites have a minimum 395-acre buffer. This buffer is based on unpublished data from Dr. David Germano documenting that “male BNLL have home ranges up to 52 acres and that female BNLL have home ranges exceeding 98 acres, the known maximum home range sizes observed for the species, the unknown specific footprint of the individual BNLL’s home range relative to where the lizard was observed on the surface, and the unknown location of the lizard underground when construction commences.”

Given the size of the buffer recommendation outlined above relative to the overall size of the proposed Project, CDFW recommends the following if Project activities are anticipated to occur within or near occupied BNLL habitat:

Recommended Mitigation Measure 9: BNLL Take Authorization

With the passage of Senate Bill No. 147, the incidental take of BNLL may be authorized for certain categories of projects, including industrial solar photovoltaic projects. If BNLL protocol surveys find that the Project site is occupied, or the Project chooses to assume presence for BNLL, consultation with CDFW is recommended to discuss how to implement the Project and avoid take; or if avoidance is not feasible, to potentially acquire an ITP prior to any ground disturbing activities, pursuant Fish and Game Code section 2081 subdivision (b).

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Crotch's Bumble Bee

The Project site is within the known geographic range of Crotch's bumble bee (CBB) and a historical occurrence was documented approximately 9 miles northeast of the Project site (CDFW 2023a). CBB are known to inhabit areas of grasslands and scrub that contain requisite habitat elements for nesting, such as small mammal burrows and bunch/thatched grasses. CBB was once common throughout most of central and southern California. However, it now appears to be absent from most of their range, especially in the central portion of its historic range within California's Central Valley (Hatfield et al. 2014). Analyses by the Xerces Society et al. (2018) suggest there have been sharp declines in relative abundance by 98% and persistence by 80% over the last ten years. As noted in the NOP, the Project site contains a mix of native and non-native grasses and has not had active crop cultivation since 2018. As such, CBB could potentially use the habitats within the Project site for foraging or nesting.

CDFW recommends a qualified biologist conduct a habitat assessment as part of the biological technical studies conducted in support of the Draft EIR to determine if the Project site or its immediate vicinity contain habitat suitable to support CBB. Potential nesting sites, which include all small mammal burrows, perennial bunch grasses, thatched annual grasses, brush piles, old bird nests, dead trees, and hollow logs would need to be documented as part of the assessment. If potentially suitable habitat is identified, CDFW recommends that a qualified biologist conduct focused surveys for CBB, and their requisite habitat features following the methodology outlined in the Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species (CDFW 2023b), as part of the biological technical studies conducted in support of the Draft EIR.

In addition to conducting a CBB habitat assessment and surveys, CDFW recommends the Draft EIR include the following measures:

Recommended Mitigation Measure 10: CBB Surveys Prior to Construction

Depending on the time between the initial survey efforts conducted in support of the Draft EIR and project construction, CDFW recommends that additional surveys, following the Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species (CDFW 2023b), be repeated the blooming period immediately prior to construction.

Recommended Mitigation Measure 11: CBB Avoidance Buffer

If surveys cannot be completed, CDFW recommends that all small mammal burrows and thatched/bunch grasses be avoided by a minimum of 50 feet to avoid take and potentially significant impacts. If ground-disturbing activities will occur during the

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overwintering period (October through February), consultation with CDFW is warranted to discuss how to implement Project activities and avoid take. Any detection of CBB prior to or during Project implementation warrants consultation with CDFW to discuss how to avoid take.

Recommended Mitigation Measure 12: CBB Take Authorization

If CBB is identified during surveys, consultation with CDFW is warranted to determine if the Project can avoid take. If take cannot be avoided, take authorization prior to any ground disturbing activities may be warranted. Take authorization would occur through issuance of an ITP by CDFW, pursuant to Fish and Game Code section 2081(b).

American Badger

The Project site is within the known geographic range of American badger (AMBA) and a historical occurrence has been documented approximately 1.7 miles southwest of the Project site (CNDDDB 2023). AMBA occupy sparsely vegetated land cover with dry, friable soils to excavate dens, which they use for cover, and that support fossorial rodent prey populations (i.e., ground squirrels, pocket gophers, etc.) (Zeiner et. al 1990). Based on aerial imagery and the information provided in the NOP, most of the Project site contains suitable habitat for AMBA denning and foraging.

As AMBA have the potential to den and/or forage within the Project site, CDFW recommends that a qualified biologist assess the presence/absence of AMBA by conducting a focused field survey in all areas of potentially suitable habitat as part of the biological studies conducted in support of the Draft EIR. If surveys indicate the presence or potential presence of AMBA, consultation with the CDFW is recommended for guidance on mitigation measures such as avoidance, minimization, and mitigation.

Burrowing Owl

The Project site is within the known geographic range of burrowing owl (BUOW) and there are multiple historic and recent occurrences located adjacent to the Project site along the California Aqueduct (CNDDDB 2023). BUOW inhabit open grasslands and desert scrublands containing small mammal burrows, a requisite habitat feature used by BUOW for nesting and cover. Based on aerial imagery and the information provided in the NOP, most of the Project site contains suitable habitat for BUOW nesting and foraging.

As BUOW have the potential to nest and/or forage within the Project site, CDFW recommends assessing presence/absence of BUOW by having a qualified biologist conduct surveys following the California Burrowing Owl Consortium's (CBOC)

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“Burrowing Owl Survey Protocol and Mitigation Guidelines” (CBOC 1993) and CDFW’s “Staff Report on Burrowing Owl Mitigation” (CDFG 2012) as part of the biological studies conducted in support of the Draft EIR.

In addition to conducting BUOW surveys, CDFW recommends the Draft EIR include the following measures:

Recommended Mitigation Measure 13: BUOW Surveys Prior to Construction

Depending on the time between the initial survey efforts conducted in support of the Draft EIR and project construction, CDFW recommends that additional surveys, following the “Burrowing Owl Survey Protocol and Mitigation Guidelines” (CBOC 1993) and CDFW’s “Staff Report on Burrowing Owl Mitigation” (CDFG 2012) be repeated the survey season immediately prior to construction.

Recommended Mitigation Measure 14: BUOW Avoidance Buffer

Should a BUOW be detected, CDFW recommends that no-disturbance buffers, as outlined in the “Staff Report on Burrowing Owl Mitigation” (CDFG 2012), be implemented prior to and during any ground-disturbing activities. Specifically, CDFW’s Staff Report recommends that impacts to occupied burrows be avoided in accordance with the following table unless a qualified biologist approved by CDFW verifies through non-invasive methods that either: 1) the birds have not begun egg laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.

Location	Time of Year	Level of Disturbance		
		Low	Med	High
Nesting sites	April 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

* meters (m)

Recommended Mitigation Measure 15: BUOW Passive Relocation and Mitigation

If BUOW are found within these recommended buffers and avoidance is not possible, it is important to note that according to the Staff Report (CDFG 2012), excluding birds from burrows is not a take avoidance, minimization, or mitigation method and is instead considered a potentially significant impact under CEQA. However, if it is necessary for Project implementation, CDFW recommends that burrow exclusion be conducted by qualified biologists and only during the non-

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breeding season, by a qualified biologist, before breeding behavior is exhibited and after the burrow is confirmed empty through non-invasive methods, such as surveillance. CDFW recommends replacement of occupied burrows with artificial burrows at a ratio of one (1) burrow collapsed to one (1) artificial burrow constructed (1:1) to mitigate for evicting BUOW and the loss of burrows. BUOW may attempt to colonize or re-colonize an area that will be impacted; thus, CDFW recommends ongoing surveillance at a rate that is sufficient to detect BUOW if they return.

Other State Species of Special Concern

The Project site is within the known geographic range of San Joaquin coachwhip, and western spadefoot and these species have been documented within the areas surrounding the Project (CDFW 2023a).

To evaluate Project-related impacts to these species, CDFW recommends that a general habitat assessment be conducted as part of the biological technical studies conducted in support of the Draft EIR.

Special Status Plant Species

The Project site is within the known geographic range of several special status plant species including California alkali grass, hispid salty bird's-beak, Hoover's eriastrum, Lemmon's jewelflower, and recurved larkspur, and these species have been historically documented within the Project vicinity (CDFW 2023a). The Project site is likely to contain suitable habitat for special status plant species, including the species mentioned above.

CDFW recommends that the Project site(s) be surveyed for special status plants by a qualified botanist following the "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities" (CDFW 2018) as part of the biological technical studies conducted in support of the Draft EIR. This protocol, which is intended to maximize detectability, includes the identification of reference populations to facilitate the likelihood of field investigations occurring during the appropriate floristic period. If surveys indicate the presence or potential presence of special status plants, consultation with CDFW is recommended for guidance on mitigation measures such as avoidance, minimization, and mitigation.

Nesting Birds

The Project site is within the known geographic range of several species of migratory and non-migratory birds, including the State species of special concern mountain plover and northern harrier, and watch list species cackling [Aleutian Canada] goose, California horned lark, and prairie falcon (CDFW 2023a). Additionally, the Project site is

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located within a relatively close vicinity of several waterfowl management areas, including the Los Banos Wildlife Area. The Project site may contain suitable habitat for an abundance of nesting migratory and non-migratory bird species, including the species mentioned above, and may provide suitable foraging habitat for several species of waterfowl and shorebirds, including mountain plover and cackling goose.

To evaluate Project-related impacts on nesting birds and foraging special status bird species, CDFW recommends that a general habitat assessment for nesting and foraging birds be conducted as part of the biological technical studies conducted in support of the Draft EIR.

Editorial Comments and/or Suggestions

Federally Listed Species: CDFW recommends consulting with USFWS regarding potential impacts to federally listed species including but not limited to the GKR, SJKF, and BNLL. Take under the Federal Endangered Species Act (FESA) is more broadly defined than CESA; take under FESA also includes significant habitat modification or degradation that could result in death or injury to a listed species by interfering with essential behavioral patterns such as breeding, foraging, or nesting. Consultation with the USFWS in order to comply with FESA is advised well in advance of any Project activities.

Lake and Streambed Alteration: Based on aerial imagery, the Project site appears to contain features indicating multiple streams and drainages may be present. If streams, swales, or drainages occur on the Project site, Project activities may be subject to CDFW's regulatory authority pursuant to Fish and Game Code section 1600 et seq. Fish and Game Code section 1602 requires an entity to notify CDFW prior to commencing any activity that may (a) substantially divert or obstruct the natural flow of any river, stream, or lake; (b) substantially change or use any material from the bed, bank, or channel of any river, stream, or lake (including the removal of riparian vegetation); (c) deposit debris, waste or other materials that could pass into any river, stream, or lake. "Any river, stream, or lake" includes those that are ephemeral, intermittent, or episodic, as well as those that are perennial. CDFW is required to comply with CEQA in the issuance of a Lake or Streambed Alteration Agreement; therefore, if the Draft EIR approved for the Project does not adequately describe the Project and its impacts to lakes or streams, a subsequent CEQA analysis may be necessary for LSA Agreement issuance. For information on notification requirements, please refer to CDFW's website (<https://wildlife.ca.gov/Conservation/LSA>) or contact CDFW staff in the Central Region Lake and Streambed Alteration Program at (559) 243-4593 or R4LSA@wildlife.ca.gov.

Artificial Lighting: Installation of outdoor artificial night lighting can disrupt the circadian rhythms of many wildlife species. Many species use photoperiod cues for

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communication, determining when to begin foraging, thermoregulation behavior, and migration (Longcore and Rich 2004, Miller 2006, Nightingale et al. 2006, Perry et al. 2008, Stone et al. 2009). Phototaxis, a phenomenon which results in attraction and movement towards light, can disorient, entrap, and temporarily blind wildlife species that experience it (Longcore and Rich 2004). Project activities could result in disruption of wildlife behavior, inadvertent injury, or mortality.

CDFW recommends that the Draft EIR for the Project include an analysis of artificial lighting as it relates to biological resources and incorporate enforceable mitigation measures to decrease the impacts of artificial outdoor lighting on wildlife species. Potentially feasible mitigation measures include motion sensitive lighting; mounting light fixtures as low as possible to minimize light trespass; use of light fittings that direct and confine the spread of light downward; and use of long-wavelength light sources. In addition, CDFW recommends that lighting is not installed in ecologically sensitive areas (e.g., streams, wetlands, and habitat used by special status species, such as nesting/roosting sites and riparian corridors) and the use of the white/blue wavelengths of the light spectrum be avoided.

Wildlife Movement and Connectivity: The Project site and greater Project area appears to support significant biological resources and contains habitat connections and supports movement across the broader landscape, sustaining both transitory and permanent wildlife populations. CDFW recommends that on-site features that contribute to habitat connectivity should be evaluated and maintained. Aspects of the Project that could create physical barriers to wildlife movement, including direct or indirect Project-related activities, should be identified, and addressed in the Draft EIR. CDFW also recommends that the Draft EIR include language that all perimeter fencing be raised four to six inches above ground level and knuckled under to allow movement by wildlife, including SJKF, through the Project site and to minimize impacts to wildlife habitat connectivity. In addition, CDFW does not recommend the use of portals in the fence as a wildlife friendly design.

Project Alternatives Analysis: CDFW recommends that the information and results obtained from the biological technical surveys, studies, and analysis conducted in support of the Project's Draft EIR be used to develop and modify the Project's alternatives to avoid and minimize impacts to biological resources to the maximum extent possible. When efforts to avoid and minimize have been exhausted, CDFW advises that remaining impacts to sensitive biological resources be mitigated to reduce impacts to a less than significant level, if feasible.

Cumulative Impacts: CDFW recommends that a cumulative impact analysis be conducted for all biological resources that will either be significantly or potentially significantly impacted by implementation of the Project, including those whose impacts are determined to be less than significant with mitigation incorporated or for those

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resources that are rare or in poor or declining health and will be impacted by the Project, even if those impacts are relatively small (i.e., less than significant). Cumulative impacts are recommended to be analyzed using an acceptable methodology to evaluate the impacts of past, present, and reasonably foreseeable future projects on resources and be focused specifically on the resource, not the Project. An appropriate resource study area should also be identified and mapped for each resource being analyzed and utilized for this analysis. CDFW recommends closely evaluating the need for a cumulative impacts analysis for the following species as part of the Draft EIR due to these species being in poor or declining health or at risk: GKR, SJAS, SJKF, golden eagle, SWHA, TRBL, BNLL, CBB, AMBA, BUOW, mountain plover, northern harrier, San Joaquin coachwhip, western spadefoot, cackling goose, California horned lark, prairie falcon, California alkali grass, hispid salty bird's-beak, Hoover's eriastrum, Lemmon's jewelflower, and recurved larkspur. CDFW staff is available for consultation in support of cumulative impacts analyses as a trustee and responsible agency under CEQA.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database, which may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special status species and natural communities detected during Project surveys to the CNDDDB. The CNDDDB field survey form can be found at the following link:

<https://www.wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The completed form can be mailed electronically to CNDDDB at the following email address:

CNDDDB@wildlife.ca.gov. The types of information reported to CNDDDB can be found at the following link: <https://www.wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>.

FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089).

CONCLUSION

CDFW appreciates the opportunity to comment on the NOP to assist the County of Merced in identifying and mitigating Project impacts on biological resources.

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If you have any questions, please contact Jeremy Pohlman, Senior Environmental Scientist (Specialist), at the address provided on this letterhead, by telephone at (805) 503-2375 or by electronic mail at Jeremy.Pohlman@wildlife.ca.gov.

Sincerely,

DocuSigned by:

FA83F09FE08945A...
Julie A. Vance
Regional Manager

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Valerie Dalley
County of Merced Department of Community and Economic Development
August 14, 2023
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Attachment 1

**CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
RECOMMENDED MITIGATION MONITORING AND REPORTING PROGRAM
(MMRP)**

PROJECT: Zeta Solar Generation and BESS Project

SCH No.: 2023070088

RECOMMENDED MITIGATION MEASURE	STATUS/DATE/INITIALS
<i>Before Disturbing Soil or Vegetation</i>	
SJKF	
Recommended Mitigation Measure 2: SJKF take authorization	
SWHA	
Recommended Mitigation Measure 3: SWHA surveys prior to construction	
Recommended Mitigation Measure 5: SWHA take authorization	
Recommended Mitigation Measure 6: SWHA foraging habitat mitigation	
BNLL	
Recommended Mitigation Measure 7: BNLL surveys prior to construction	
Recommended Mitigation Measure 9: BNLL take authorization	
CBB	
Recommended Mitigation Measure 10: CBB surveys prior to construction	
Recommended Mitigation Measure 12: CBB take authorization	
BUOW	
Recommended Mitigation Measure 13: BUOW surveys prior to construction	
Recommended Mitigation Measure 15: BUOW passive relocation and mitigation	
<i>During Construction</i>	
SJKF	
Recommended Mitigation Measure 1: SJKF avoidance buffer	
SWHA	
Recommended Mitigation Measure 4: SWHA avoidance buffer	
BNLL	
Recommended Mitigation Measure 8: BNLL avoidance buffer	
CBB	

Recommended Mitigation Measure 11: CBB avoidance buffer	
BUOW	
Recommended Mitigation Measure 14: BUOW avoidance buffer	



California Program Office

P.O. Box 401, Folsom, California 95763 | 916-313-5800

www.defenders.org

August 14, 2023

Tiffany Ho, Deputy Director

Merced County Community and Economic Development Department

2222 'M' Street

Merced, California 95340

Delivered via email to: Tiffany.Ho@countyofmerced.com

RE: Scoping Comments for Zeta Solar and Battery Energy Storage System Project
(SCH 2023070088)

Dear Ms. Ho,

Thank you for the opportunity to provide comments in response to the Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the proposed Zeta Solar and Battery Energy Storage System Project (Project). These comments are submitted on behalf of Defenders of Wildlife (Defenders) and our 2.1 million members and supporters in the United States, 316,000 of whom reside in California. Defenders is dedicated to protecting all wild animals and plants in their natural communities. To that end, Defenders employs science, public education and participation, media, legislative advocacy, litigation and proactive on-the-ground solutions to prevent the extinction of species, associated loss of biological diversity and habitat alteration and destruction.

We strongly support the development of renewable energy production. A low-carbon energy future is critical for California's economy, communities and environment. Achieving this future—and *how* we achieve it—is critical for protecting California's internationally treasured wildlife, landscapes and diverse habitats. We believe transitioning to a renewable energy future need not exacerbate the ongoing extinction crisis by thoughtfully planning projects while protecting habitat critical to species.

Project Description:

The proposed Project is a photovoltaic solar power generating facility and associated infrastructure that would generate up to 75 MW and provide up to 8 hours of 75 MW of battery energy storage. A 1,700-foot-long gen-tie line would originate from the project site to the PG&E

Mercy Springs Substation. The proposed 650-acre Project is on private land in southwestern Merced County, approximately 9 miles south of Los Banos and 800 feet east of Interstate 5. The California Aqueduct is located 300 feet to the southwest of the project and runs along the entire southwest side of the Project.

Comments

We offer the following comments on the scope of the DEIR for the proposed Project:

1. Probable Environmental Effects

We support the County's decision to prepare a DEIR but note that NOP does not identify probable environmental effects of the Project. The decision to move directly to a DEIR does not absolve a lead agency from identifying probable environmental effects in the NOP. §15082 states that a NOP, at a minimum, shall include the probable environmental effects of the project.¹ The NOP for the proposed Project does include a section titled "Potential Areas of Environmental Impact" but fails to provide any areas of the probable environmental effect of the Project. Furthermore, §15375 states, "[t]he purpose of the notice is to solicit guidance from those agencies as to the scope and content of the environmental information to be included in the EIR."² The failure to include the probable environmental effects of the project within the NOP not only violates the requirement to do so but also prevents an adequate review on the scope and content of the environmental information to be included in the EIR as directed by the statute. Defenders recommends the County ensure the inclusion any areas of probable environmental effects from proposed projects in future CEQA review and associated NOPs to adhere to the statute.

2. Protocol-Level Surveys

The proposed Project site contains sensitive, high-value biological resources and provides important habitat to numerous special-status wildlife species, including but not limited to the following:³

Table 1: Special Status Species' Habitat Within the Project Site

Common Name	Scientific Name	Status
American badger	<i>Taxidea taxus</i>	State Species of Special Concern

¹ Cal. Code Regs. tit. 14 § 15082(a)(1)(C).

² Cal. Code Regs. tit. 14 § 15375

³ California Natural Diversity Database. Accessed 8/3/2023. <https://wildlife.ca.gov/Data/CNDDDB/Maps-and-Data>

Blunt-nosed leopard lizard	<i>Gambelia sila</i>	Federal and State Endangered
Burrowing owl	<i>Athene cunicularia</i>	State Species of Special Concern
Giant kangaroo rat	<i>Dipodomys ingens</i>	Federal and State Endangered
Nelson's antelope squirrel	<i>Amмосpermophilus nelson</i>	State Threatened
San Joaquin kit fox	<i>Vulpes macrotis mutica</i>	Federal Endangered and State Threatened
Swainson's hawk	<i>Buteo swainsoni</i>	State Threatened

Given that the proposed Project has the potential to significantly impact special-status species and their habitat, it is vital that the biological resources surveys adhere to wildlife agency-approved species-specific protocols to provide thorough and accurate results that support impact analysis and identification of appropriate mitigation measures for each species. The DEIR must, at a minimum, include avoidance, minimization and compensatory mitigation measures for species and habitats the Project will adversely impact. The DEIR must address both direct impacts from the proposed Project and cumulative impacts on special-status species and sensitive habitats. We recommend avoidance and minimization measures be exhausted, with concurrence by trustee and responsible wildlife agencies, before the compensatory mitigation options are considered.

a. Blunt-Nosed Leopard Lizard (BNLL)

The proposed Project site and surrounding area may provide suitable habitat for BNLL and has a probability of BNLL occurrence.⁴ According to the US Fish and Wildlife Service (USFWS), BNLL has been reduced to 15% of its historical range due to widespread agricultural development of the San Joaquin Valley.⁵ Given extreme loss of habitat, the BNLL is a federal and state-listed endangered species. It is also a fully protected species that requires – under the recently revised fully protected statute – that take is avoided to the maximum extent possible. If take cannot be avoided to the maximum extent possible, then a project applicant must fully mitigate that take, ensure that all further measures necessary to satisfy the conservation standard of Section 2805(d) of the Fish and Game Code are in place, and provide for monitoring and adaptive management.

⁴ See <https://databasin.org/datasets/e02db184ff08428eb9a6da4072a4ebfd/>

⁵ See <https://www.fws.gov/species/blunt-nosed-leopard-lizard-gambelia-silus>

Given that the Project site provides suitable habitat for this protected species, complete protocol-level surveys for BNLL must be performed across the entirety of the Project site to ensure that take will be avoided to the maximum extent possible. We also recommend that surveys for the species be performed that, at a minimum, conform to the current survey standards established in the *Approved Survey Methodology for the Blunt-Nosed Leopard Lizard* from the California Department of Fish and Wildlife (CDFW).⁶ Additionally, we recommend consultation with the state and federal wildlife agencies for recommended impact avoidance, minimization and mitigation measures, including compensatory mitigation, and requirements for complying with the state fully protected species law and state and federal endangered species acts.

b. Burrowing Owl

Burrowing owls are listed as a Species of Special Concern by CDFW that has experienced declines in population and range. It is estimated that there are fewer than 10,000 breeding pairs of burrowing owls and most exist on privately owned land.⁷ The proposed project site may provide suitable habitat for the burrowing owl⁸, and therefore species-specific protocol-level surveys that adhere to the State of California's *Staff Report on Burrowing Owl Mitigation* recommendations are warranted.⁹ If burrowing owls are observed on or adjacent to the Project site based on the survey, the DEIR must, at a minimum, include avoidance, minimization and mitigation measures for the species based on those listed within the *Staff Report on Burrowing Owl Mitigation*.

c. San Joaquin Kit Fox (SJKF)

SJKF is listed as federally endangered and state threatened, and it has a high probability of occurrence on the proposed Project site due to the suitable habitat.¹⁰ We recommend protocol-level surveys for the species be performed

⁶ California Department of Fish and Wildlife. 2019. *Approved Survey Methodology for the Blunt-Nosed Leopard Lizard*.

⁷ California Department of Fish and Wildlife. 2012. Staff Report on Burrowing Owl Mitigation. The 7 March 2012 memo replacing 1995 staff report, State of California Natural Resources Agency, Department of Fish and Wildlife. Sacramento, California.

⁸ See <https://databasin.org/datasets/421e63060890432d82027edc117dd661/>

⁹ California Department of Fish and Wildlife. 2012. Staff Report on Burrowing Owl Mitigation. The 7 March 2012 memo replacing 1995 staff report, State of California Natural Resources Agency, Department of Fish and Wildlife. Sacramento, California.

¹⁰ See <https://databasin.org/datasets/db0d750efaf54842b7069f8cd41264ad/>

that, at a minimum, conform to the current survey standards established in the USFWS *Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior To or During Ground Disturbance*.¹¹ Additionally, the Project impacts to SJKF connectivity should be examined within the DEIR. We recommend consultation with the state and federal wildlife agencies for recommended impact avoidance, minimization and mitigation measures, including compensatory mitigation, and requirements for obtaining an ITP, if necessary.

d. Swainson's Hawk

The Swainson's hawk is listed as threatened under the California Endangered Species Act. The project site is located on land directly adjacent to predicted suitable habitat for the species,¹² and we recommend that a survey for the species be conducted that, at a minimum, conforms to CDFW and the California Energy Commission's survey guidelines.¹³ If the species is observed on or adjacent to the Project site based on the survey, the DEIR must include avoidance, minimization and mitigation measures developed in consultation with CDFW.

3. Lake Effect

Defenders is concerned about the Project's potential impact on avian species. The California Aqueduct is located 300 feet from the Project and runs along the entire southwest side. Furthermore, the Los Banos Reservoir and the San Luis Reservoir are located within 15 miles of the Project. Given the proposed Project's proximity to the aqueduct and the reservoirs, there is a higher likelihood for migratory birds to mistake the panels for water and become injured or killed due to collisions with Project facilities. Studies indicate various species of birds may be attracted to the vast arrays of PV solar panels due to the "lake effect" caused by reflected polarized light.¹⁴ We recommend the DEIR include consideration of lake effect impacts to migratory birds. Furthermore, we recommend coordination with CDFW and USFWS on ITP requirements for migratory birds.

¹¹ U.S. Fish and Wildlife Service. 2011. *Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior To or During Ground Disturbance*. Sacramento, California.

¹² See <https://databasin.org/datasets/da24fc742049461d80b3e06d580feb29/>

¹³ Swainson's Hawk Technical Advisory Committee. 2000. *Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley*.

¹⁴ Upton, J. 2014. Solar farms threaten birds. *Scientific American*.
<https://www.scientificamerican.com/article/solar-farms-threaten-birds/#:~:text=It%20was%20one%20of%20233,fatally%20crippled%20by%20the%20facilities>

4. Cumulative Impacts

The increasing development of solar energy projects within the San Joaquin Valley is having a significant impact on biological resources in the region, including but not limited to blunt-nosed leopard lizard, burrowing owl, San Joaquin Kit Fox and Swainson's hawk. This Project is not an exception and could significantly add to the loss of the San Joaquin Valley's important and declining biological resources. Given that the Vega solar project site is located only 1,200 feet north of the site, cumulative impacts to biological resources must be fully evaluated. Defenders recommends the DEIR fully analyze the direct and indirect cumulative impacts of past, present and reasonably foreseeable activities that will adversely impact biological resources within the region. The analysis must also include the cumulative impacts to habitat connectivity and provide mitigation measures for any adverse impacts.

We request the analysis include a detailed map of existing and planned solar energy and other land development projects with the remaining habitat and connectivity for BNLL and SJKF. We recommend coordination with CDFW regarding the methods of analyzing the cumulative impacts.

Conclusion

Thank you once again for the opportunity to provide scoping comments for the Zeta Solar and Battery Energy Storage System Project DEIR. We look forward to reviewing the DEIR and request to be notified when it is available. If you have any questions, please contact me at 408-603-4694 or via email at SMarkowska@Defenders.org.

Respectfully submitted,



Sophia Markowska
Defenders of Wildlife
Senior California Representative

April 3, 2024

Tiffany Ho
Merced County
Community & Economic Development
2222 M Street
Merced, CA 95340

**Project: Notice of Scoping Meeting for the Environmental Impact Report for
Conditional Use Permit No. CUP22-015, Zeta Solar and Battery Energy
Storage System Project**

District CEQA Reference No: 20240299

Dear Ms. Ho,

The San Joaquin Valley Air Pollution Control District (District) has reviewed the Notice of Scoping (NOS) documents for an Environmental Impact Report (EIR) from Merced County (County). Per the NOS, the project consists of a photovoltaic solar power generation facility on 462 acres to include a battery energy storage system that would generate up to 75 megawatts (MW) of renewable electrical energy, an energy storage capacity of up to 8 hours of 75 MW of alternative current, a 1,700 square foot long generation-tie, a 0.8 acre Operation and Maintenance area, and a five (5) acre substation (Project). The Project is located north of Poleline Rd, east of 1st Lift Canal, and south of W El Campo Rd, in Los Banos.

The District offers the following comments at this time regarding the Project:

1) Project Related Emissions

At the federal level under the National Ambient Air Quality Standards (NAAQS), the District is designated as extreme nonattainment for the 8-hour ozone standards and serious nonattainment for the particulate matter less than 2.5 microns in size (PM_{2.5}) standards. At the state level under California Ambient Air Quality Standards (CAAQS), the District is designated as nonattainment for the 8-hour ozone, PM₁₀, and PM_{2.5} standards.

The District's initial review of the Project concludes that emissions resulting from construction of the Project may exceed any of the following significance thresholds

Samir Sheikh
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)
1990 E. Gettysburg Avenue
Fresno, CA 93726-0244
Tel: (559) 230-6000 FAX: (559) 230-6061

Southern Region
34946 Flyover Court
Bakersfield, CA 93308-9725
Tel: (661) 392-5500 FAX: (661) 392-5585

as identified in the District's Guidance for Assessing and Mitigating Air Quality Impacts: <https://ww2.valleyair.org/media/g4nl3p0g/gamaqi.pdf>. The District recommends that a more detailed preliminary review of the Project be conducted for the Project's construction and operational emissions.

1a) Construction Emissions

The District recommends, to reduce impacts from construction-related diesel exhaust emissions, the Project should utilize the cleanest available off-road construction equipment.

2) Health Risk Screening/Assessment

The County should evaluate the risk associated with the Project for sensitive receptors (residences, businesses, hospitals, day-care facilities, health care facilities, etc.) in the area and mitigate any potentially significant risk to help limit exposure of sensitive receptors to emissions.

To determine potential health impacts on surrounding receptors (residences, businesses, hospitals, day-care facilities, health care facilities, etc.) a Prioritization and/or a Health Risk Assessment (HRA) should be performed for the Project. These health risk determinations should quantify and characterize potential Toxic Air Contaminants (TACs) identified by the Office of Environmental Health Hazard Assessment/California Air Resources Board (OEHHA/CARB) that pose a present or potential hazard to human health.

Health risk analyses should include all potential air emissions from the project, which include emissions from construction of the project, including multi-year construction, as well as ongoing operational activities of the project. Note, two common sources of TACs can be attributed to diesel exhaust emitted from heavy-duty off-road earth moving equipment during construction, and from ongoing operation of heavy-duty on-road trucks.

Prioritization (Screening Health Risk Assessment):

A "Prioritization" is the recommended method for a conservative screening-level health risk assessment. The Prioritization should be performed using the California Air Pollution Control Officers Association's (CAPCOA) methodology. Please contact the District for assistance with performing a Prioritization analysis.

The District recommends that a more refined analysis, in the form of an HRA, be performed for any project resulting in a Prioritization score of 10 or greater. This is because the prioritization results are a conservative health risk representation, while the detailed HRA provides a more accurate health risk evaluation.

Health Risk Assessment:

Prior to performing an HRA, it is strongly recommended that land use agencies/project proponents develop and submit for District review a health risk modeling protocol that outlines the sources and methodologies that will be used to perform the HRA.

A development project would be considered to have a potentially significant health risk if the HRA demonstrates that the health impacts would exceed the District's established risk thresholds, which can be found here:

<https://ww2.valleyair.org/permitting/ceqa/>.

A project with a significant health risk would trigger all feasible mitigation measures. The District strongly recommends that development projects that result in a significant health risk not be approved by the land use agency.

The District is available to review HRA protocols and analyses. For HRA submittals please provide the following information electronically to the District for review:

- HRA (AERMOD) modeling files
- HARP2 files
- Summary of emissions source locations, emissions rates, and emission factor calculations and methodologies.

For assistance, please contact the District's Technical Services Department by:

- E-Mailing inquiries to: hramodeler@valleyair.org
- Calling (559) 230-5900

Recommended Measure: Development projects resulting in TAC emissions should be located an adequate distance from residential areas and other sensitive receptors to prevent the creation of a significant health risk in accordance to CARB's Air Quality and Land Use Handbook: A Community Health Perspective located at <https://ww2.arb.ca.gov/our-work/programs/resource-center/strategy-development/land-use-resources>.

3) Ambient Air Quality Analysis

An Ambient Air Quality Analysis (AAQA) uses air dispersion modeling to determine if emissions increases from a project will cause or contribute to a violation of State or National Ambient Air Quality Standards. The District recommends an AAQA be performed for the Project if emissions exceed 100 pounds per day of any pollutant.

An AAQA uses air dispersion modeling to determine if emission increase from a project will cause or contribute to a violation of State or National Ambient Air Quality

Standards. An acceptable analysis would include emissions from both project-specific permitted and non-permitted equipment and activities. The District recommends consultation with District staff 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 online at the District's website:
<https://ww2.valleyair.org/permitting/ceqa/>.

4) Voluntary Emission Reduction Agreement

Criteria pollutant emissions may result in emissions exceeding the District's significance thresholds, potentially resulting in a significant impact on air quality. When a project is expected to have a significant impact, the District recommends the EIR also include a discussion on the feasibility of implementing a Voluntary Emission Reduction Agreement (VERA) for this Project.

A VERA is a mitigation measure by which the project proponent provides pound-for-pound mitigation of emissions increases through a process that develops, funds, and implements emission reduction projects, with the District serving a role of administrator of the emissions reduction projects and verifier of the successful mitigation effort. To implement a VERA, the project proponent and the District enter into a contractual agreement in which the project proponent agrees to mitigate project specific emissions by providing funds for the District's incentives programs. The funds are disbursed by the District in the form of grants for projects that achieve emission reductions. Thus, project-related impacts on air quality can be mitigated. Types of emission reduction projects that have been funded in the past include electrification of stationary internal combustion engines (such as agricultural irrigation pumps), replacing old heavy-duty trucks with new, cleaner, more efficient heavy-duty trucks, and replacement of agricultural equipment with the latest generation technologies.

In implementing a VERA, the District verifies the actual emission reductions that have been achieved as a result of completed grant contracts, monitors the emission reduction projects, and ensures the enforceability of achieved reductions. After the project is mitigated, the District certifies to the Lead Agency that the mitigation is completed, providing the Lead Agency with an enforceable mitigation measure demonstrating that project-related emissions have been mitigated. To assist the Lead Agency and project proponent in ensuring that the environmental document is compliant with CEQA, the District recommends the environmental document includes an assessment of the feasibility of implementing a VERA.

5) District Rules and Regulations

The District issues permits for many types of air pollution sources, and regulates some activities that do not require permits. A project subject to District rules and regulations would reduce its impacts on air quality through compliance with the District's regulatory framework. In general, a regulation is a collection of individual rules, each of which deals with a specific topic. As an example, Regulation II (Permits) includes District Rule 2010 (Permits Required), Rule 2201 (New and Modified Stationary Source Review), Rule 2520 (Federally Mandated Operating Permits), and several other rules pertaining to District permitting requirements and processes.

The list of rules below is neither exhaustive nor exclusive. Current District rules can be found online at: <https://ww2.valleyair.org/rules-and-planning/current-district-rules-and-regulations>. To identify other District rules or regulations that apply to future projects, or to obtain information about District permit requirements, the project proponents are strongly encouraged to contact the District's Small Business Assistance (SBA) Office at (559) 230-5888.

5a) District Rules 2010 and 2201 - Air Quality Permitting for Stationary Sources

Stationary Source emissions include any building, structure, facility, or installation which emits or may emit any affected pollutant directly or as a fugitive emission. District Rule 2010 (Permits Required) requires operators of emission sources to obtain an Authority to Construct (ATC) and Permit to Operate (PTO) from the District. District Rule 2201 (New and Modified Stationary Source Review) requires that new and modified stationary sources of emissions mitigate their emissions using Best Available Control Technology (BACT).

This Project may be subject to District Rule 2010 (Permits Required) and Rule 2201 (New and Modified Stationary Source Review) and may require District permits. Prior to construction, the Project proponent should submit to the District an application for an ATC. For further information or assistance, the project proponent may contact the District's SBA Office at (559) 230-5888.

5b) District Rule 9510 - Indirect Source Review (ISR)

The Project is subject to District Rule 9510 because it will receive a project-level discretionary approval from a public agency and will equal or exceed 9,000 square feet of space.

The purpose of District Rule 9510 is to reduce the growth in both NO_x and PM emissions associated with development and transportation projects from mobile

and area sources; specifically, the emissions associated with the construction and subsequent operation of development projects. The ISR Rule requires developers to mitigate their NOx and PM emissions by incorporating clean air design elements into their projects. Should the proposed development project clean air design elements be insufficient to meet the required emission reductions, developers must pay a fee that ultimately funds incentive projects to achieve off-site emissions reductions.

Per Section 5.0 of the ISR Rule, an Air Impact Assessment (AIA) application is required to be submitted no later than applying for project-level approval from a public agency. As of the date of this letter, the District has not received an AIA application for this Project. Please inform the project proponent to immediately submit an AIA application to the District to comply with District Rule 9510 so that proper mitigation and clean air design under ISR can be incorporated into the Project's design.

Information about how to comply with District Rule 9510 can be found online at: <https://ww2.valleyair.org/permitting/indirect-source-review-rule-overview>

The AIA application form can be found online at: <https://ww2.valleyair.org/permitting/indirect-source-review-rule-overview/forms-and-applications/>

District staff is available to provide assistance and can be reached by phone at (559) 230-5900 or by email at ISR@valleyair.org.

5c) District Rule 4601 (Architectural Coatings)

The Project may be subject to District Rule 4601 since it may utilize architectural coatings. Architectural coatings are paints, varnishes, sealers, or stains that are applied to structures, portable buildings, pavements or curbs. The purpose of this rule is to limit VOC emissions from architectural coatings. In addition, this rule specifies architectural coatings storage, cleanup and labeling requirements. Additional information on how to comply with District Rule 4601 requirements can be found online at: <https://ww2.valleyair.org/media/tkgjeusd/rule-4601.pdf>

5d) District Regulation VIII (Fugitive PM10 Prohibitions)

The project proponent may be required to submit a Construction Notification Form or submit and receive approval of a Dust Control Plan prior to commencing any earthmoving activities as described in Regulation VIII, specifically Rule 8021 – *Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities*.

Should the project result in at least 1-acre in size, the project proponent shall provide written notification to the District at least 48 hours prior to the project proponents intent to commence any earthmoving activities pursuant to District Rule 8021 (Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities). Also, should the project result in the disturbance of 5-acres or more, or will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials, the project proponent shall submit to the District a Dust Control Plan pursuant to District Rule 8021 (Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities). For additional information regarding the written notification or Dust Control Plan requirements, please contact District Compliance staff at (559) 230-5950.

The application for both the Construction Notification and Dust Control Plan can be found online at: <https://ww2.valleyair.org/media/fm3jrbsq/dcp-form.docx>

Information about District Regulation VIII can be found online at:
<https://ww2.valleyair.org/dustcontrol>

5e) Other District Rules and Regulations

The Project may also be subject to the following District rules: Rule 4102 (Nuisance) and Rule 4641 (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations).

6) District Comment Letter

The District recommends that a copy of the District's comments be provided to the Project proponent.

If you have any questions or require further information, please contact Ryan Grossman by e-mail at Ryan.grossman@valleyair.org or by phone at (559) 230-6569.

Sincerely,

Tom Jordan
Director of Policy and Government Affairs

A handwritten signature in blue ink, appearing to read 'Tom Jordan', with a stylized flourish at the end.

For: Mark Montelongo
Program Manager