DOCKETED	
Docket Number:	24-OPT-01
Project Title:	Perkins Renewable Energy Project
TN #:	254446
Document Title:	Perkins WDR Attachment A, Supplemental Pages
Description:	Supplemental Pages for the Application for Discharges of Dredged or Fill Material to Waters of the State
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Submitter Role:	Applicant Consultant
Submission Date:	2/14/2024 5:59:24 AM
Docketed Date:	2/14/2024

Appendix L Application: Discharges of Dredged or Fill Material to Waters of the State Attachment A, Supplemental Pages

Section 2: Project Information

Project Location

The Project is located in Imperial County, approximately 37 miles southeast of the Salton Sea. Imperial County is in southern California, in the southwestern portion of the Colorado Desert. The Project Application Area is located approximately 1.2 miles north of the U.S.–Mexico border, in a region characterized by undeveloped desert and agricultural uses. The Imperial Valley, which is dominated by agricultural land, is located an estimated 2.5 miles west of the Project Application Area. The Imperial Sand Dunes, the largest mass of sand dunes in California, is located approximately 9 miles east of the Project Application Area. A regional location map is provided in Figure 1 and vicinity map is provided in Figure 2.

Figure 1 Regional Setting

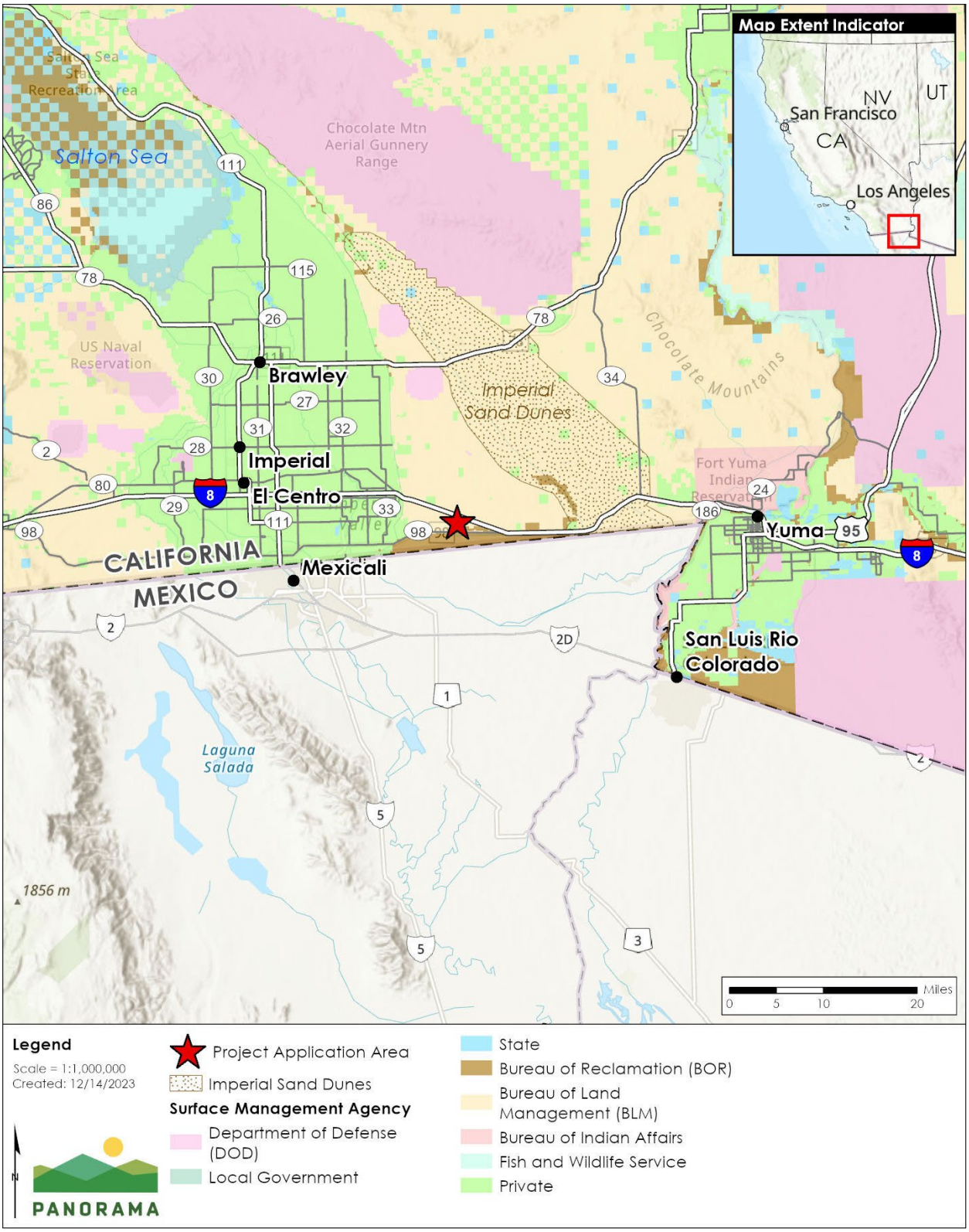
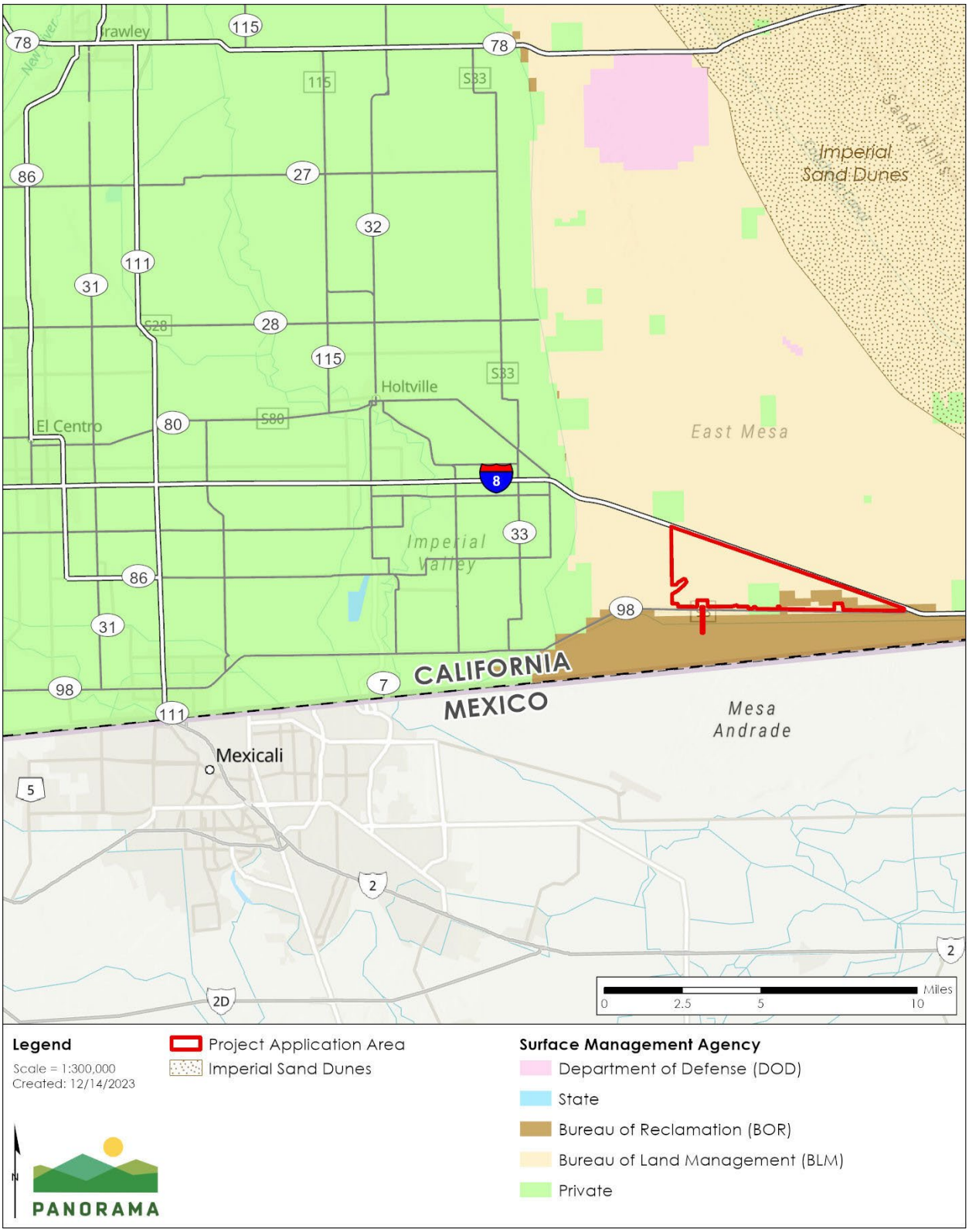


Figure 2 Project Vicinity



Geographic Coordinates

The latitude and longitude for each water resource is provided below.

No.	Latitude	Longitude
1	32.723668°	-115.219132°
2	32.723567°	-115.218992°
3	32.723239°	-115.218695°
4	32.719889°	-115.212903°
5	32.719580°	-115.213225°
6	32.719171°	-115.213953°
7	32.718898°,	-115.214012°
8	32.718578°	-115.213882°
9	32.718600°	-115.212537°
10	32.721262°	-115.199395°
11	32.720717°	-115.200509°
12	32.720297°	-115.199846°
13	32.718979°	-115.199163°
14	32.719746°	-115.200386°
15	32.719659°	-115.201125°
16	32.723400°	-115.219596°
17	32.723260°	-115.220184°

Project Description

IP Perkins, LLC, IP Perkins BAAH, LLC, and any related affiliates (collectively, "Applicant"), subsidiaries of Intersect Power, LLC, propose to construct, operate, maintain, and decommission a 1,150 megawatt (MW) solar photovoltaic (PV) facility and battery energy storage system (BESS) on public lands administered by the U.S. Bureau of Land Management (BLM) and Bureau of Reclamation (BOR), as well as private lands located southeast of El Centro in Imperial County, California.

A fenced area referred to as the "Project site" would contain the solar plant, BESS, Project interconnection generation tie (gen-tie) line, Project substation, and operations and maintenance (O&M) yard and facility. The Project would also include a high-voltage breaker-and-a-half switchyard (BAAH switchyard) and two 500 kilovolt (kV) loop-in transmission lines, each within a 200-foot-wide loop-in transmission corridor, that would be required to interconnect to the existing San Diego Gas and Electric (SDG&E) Southwest Power Link (SWPL) 500 kV transmission line that traverses east–west to the south of the Project site. Together the Project site, the BAAH switchyard, and the 500 kV loop-in transmission corridors are referred to as the "Project Application Area" in the AFC (refer to Figure 3).

Solar Arrays

The solar facility would include several million PV panels; the precise panel count would depend on the technology ultimately selected at the time of procurement and efficiency of the technology at the time. The ultimate decision for the panel types and racking systems would depend on market conditions and environmental factors, including the recycling potential of the panels at the end of their useful lives.

Either mono-facial or bi-facial modules could be used, with a maximum height of approximately 10 feet at full tilt depending on topography and hydrology. Panel mounting systems that may be installed include either fixed-tilt or single-axis tracking technology, depending on the PV panels ultimately selected. Panels would either be mounted in a portrait orientation as single panels or mounted in a landscape orientation and stacked two high on a north-south oriented single-axis tracking system that would track the sun from east to west during the day. Panel faces would be minimally reflective, dark in color, and highly absorptive. Refer to Figure 4 for an elevation of an example solar PV technology that may be selected. Refer to Figure 5 for a visual representation of an example solar PV technology.

The PV panels would be manufactured at an off-site location and transported to the Project site. Panels would be arranged on the site in solar arrays. For single-axis tracking systems, the length of each row of panels would be approximately 350 feet along the north–south axis. For fixed-tilt systems, a row would consist of multiple tables four panels high by 10 panels wide (contingent on final design), each table being approximately 65 feet along the east–west axis, with 1-foot spacing between each table. Spacing between each row would be a minimum of 4 feet. Electricity would be generated directly from sunlight by the solar arrays and collected to the Project substation.

Figure 3 Project Layout Option 1

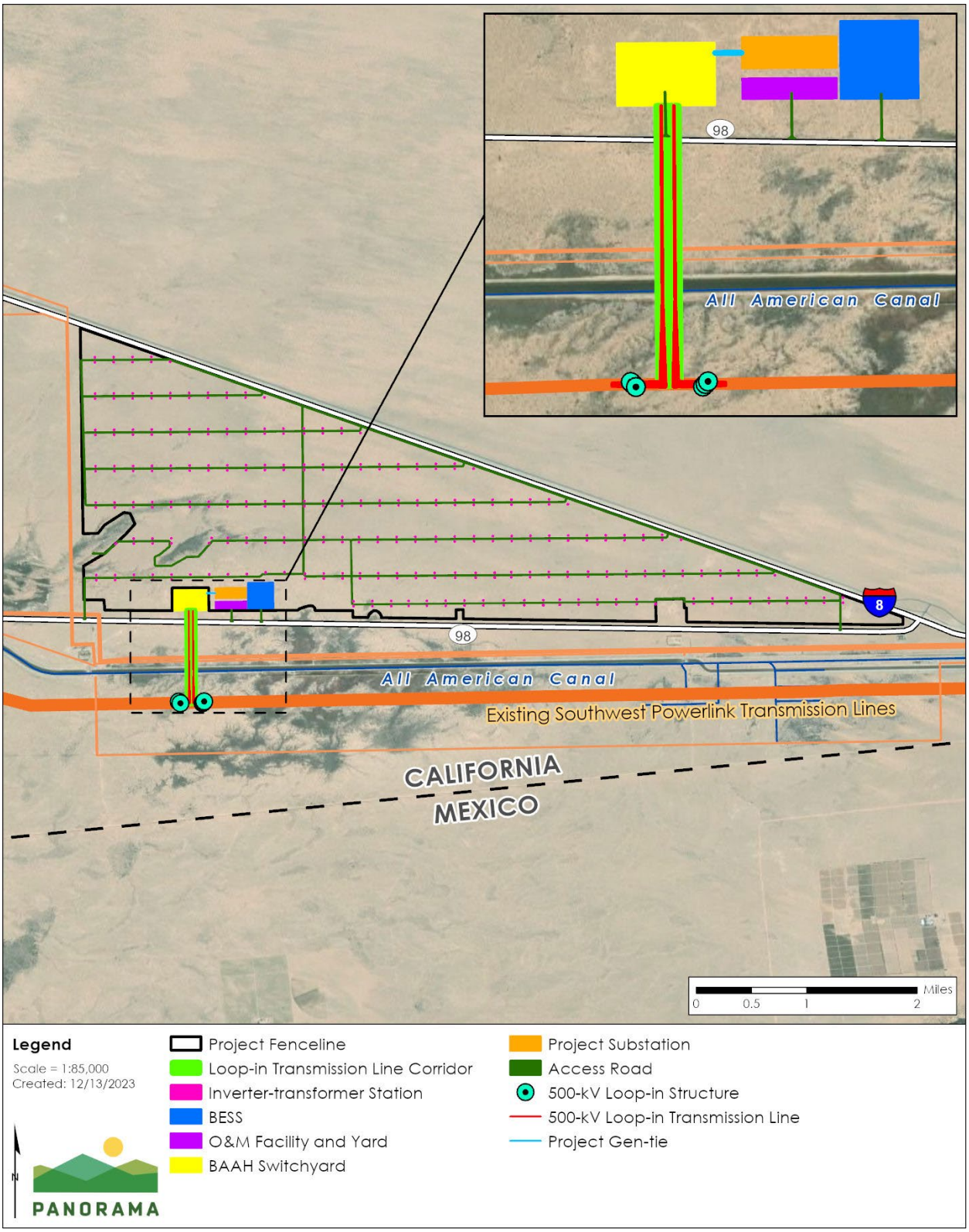


Figure 4 Solar PV Example Technology

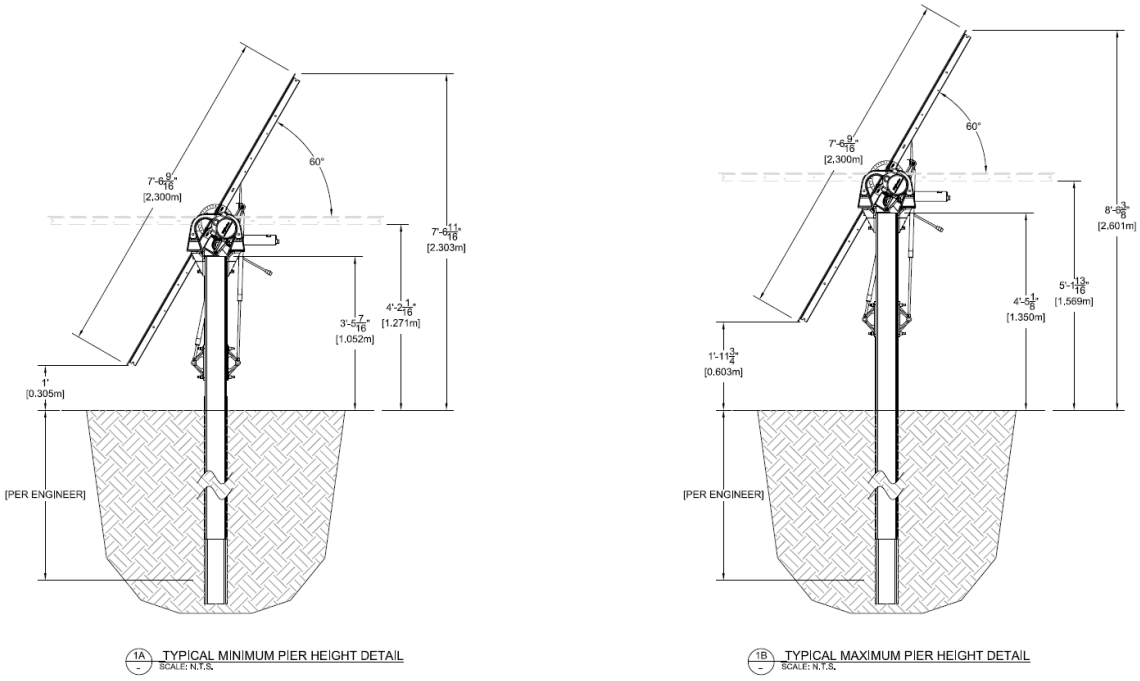


Figure 5 Visual Representation of Solar PV Example Technology

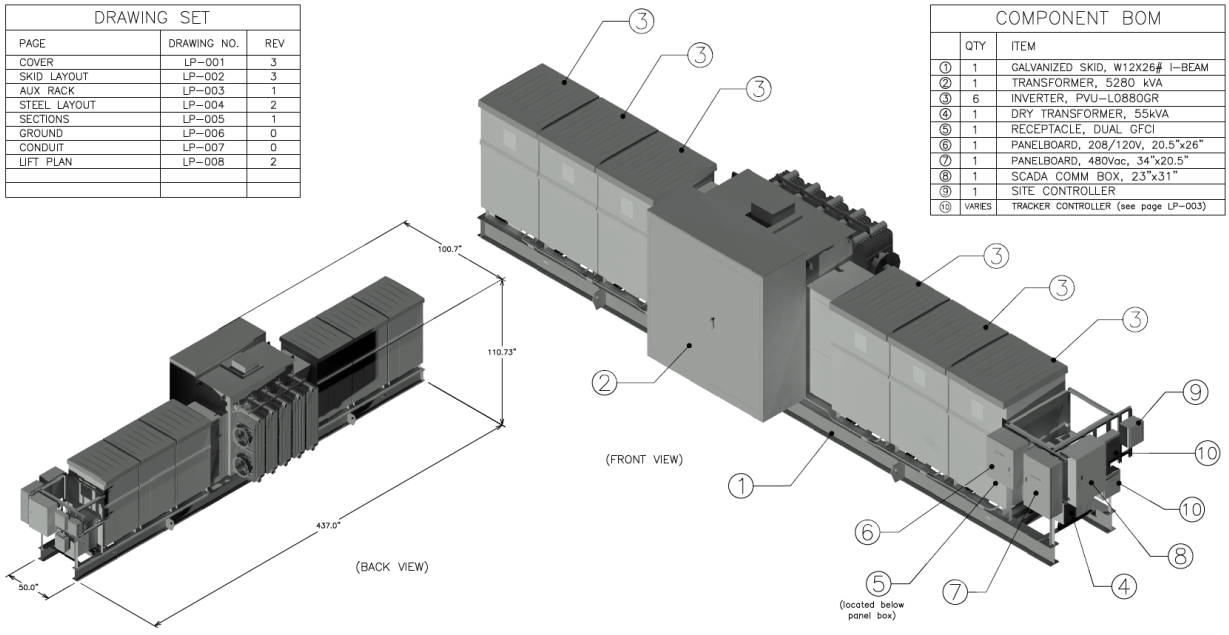
Structures supporting the PV panels would consist of steel piles (e.g., cylindrical pipes, H-beams, helical screws, or similar). The piles would typically be spaced 18 feet apart. The height of the piles above the ground would vary based on the racking configuration specified in the final design. For a single-axis tracking system, piles typically would be installed to a reveal height of approximately 4 to 6 feet above grade (minimum 1 foot clearance between bottom edge of panel and ground but could be higher to compensate for terrain variations and clearance for overland flow during stormwater events). For a fixed-tilt system, the reveal height would vary based on the racking configuration specified in the final design. Fixed-tilt arrays would be oriented along an east–west axis, with panels facing generally south. Tracking arrays would be oriented along a north–south axis, with panels tracking east to west to follow the movement of the sun. For fixed-tilt systems, the panels would be fixed at an approximate 20- to 60-degree angle or as otherwise determined necessary during final Project design.

Inverters, Transformers, and Electrical Collection System

The Project would be designed and laid out primarily in 4 to 7 MW solar arrays. Non-conforming module blocks would be designed and sized as appropriate to accommodate the irregular shape of the Project site where necessary to avoid identified sensitive environmental resources.

Each 4 to 7 MW solar array would include an inverter-transformer station measuring 40 feet by 25 feet and approximately 10 feet tall, constructed on a concrete pad or steel skid and centrally located within the PV arrays (refer to Figure 6).

Figure 6 Inverters, Transformers and Electrical Collection System



The color of the inverter equipment would be light colored or neutral, depending on thermal requirements and availability from the manufacturer. Each inverter-transformer station would contain up to six inverters, a transformer, a battery enclosure, and a switchboard 8 to 11 feet high. The battery would provide an uninterruptible power supply as emergency back-up power for the inverter-transformer station. Each pad would have a security camera at the top of an approximately 20-foot-tall wood or metal pole. If required based on site meteorological conditions, an inverter shade structure would be installed at each pad. The shade structures, if needed, would consist of wood or metal supports and a durable outdoor material shade structure (metal, vinyl, or similar). The shade structure would extend up to 10 feet above the ground surface.

PV panels would be electrically connected into panel strings using wiring secured to the panel racking system. Cables would be installed to convey the DC electricity from the panels via combiner boxes or combiner harnesses with a trunk bus system located throughout the solar arrays to inverters to convert the DC to AC electricity. The output voltage of the inverters would be stepped up to the collection system voltage via transformers located near the inverters. The 34.5 kV collection cables would be either buried underground or installed overhead on wood poles. An underground 34.5 kV line would likely be buried in a trench 4 feet below grade but could go as deep as 6 feet and include horizontal drilling to avoid environmental resources and constraints. Thermal specifications require 10 feet of spacing between the medium voltage lines. In some locations closer to the step-up substation, more than 20 medium voltage AC lines may run in parallel.

In locations where the collection system crosses a road or pipeline overhead, wood poles spaced at intervals between 150 to 250 feet would be installed across the Project site. The typical height of the poles would be approximately 60 to 100 feet, with an embedment depth of 10 to 15 feet depending on the type of crossing, and diameters varying from 12 to 20 inches. Due to potential for operations and maintenance challenges, as well as for security purposes, the intent is to install the 34.5 kV collection lines underground; however, overhead installation could be used in the event sensitive resources need to be avoided.

Solar Facility Access Driveways and Roads

The Project's roadway system would include a perimeter road, access roads and driveways from SR 98, and internal roads. Up to five access roads and driveways from SR 98 would be constructed for access to the Project site. The access roads and driveways would be 24 feet wide (20 feet wide with a 2-foot shoulder on either side) and constructed to achieve facility maintenance requirements and Imperial County standards. The access roads and driveways would be surfaced with gravel, compacted soil, or another commercially available surface, depending upon site conditions and constraints. Shoulders would be of the same material albeit less compacted and would allow vehicles to pass one another.

A 20-foot-wide perimeter road (16 feet wide with 2-foot-wide shoulder on either side) would be built on the inside of the fence. A network of regularly spaced 20-foot-wide internal roads would be installed connecting to the perimeter road. Roads would be surfaced with compacted

soil or another commercially available surface acceptable to regulatory agencies and would provide a fire buffer, accommodate Project operation and maintenance activities such as cleaning of solar panels, and facilitate on-site circulation for emergency vehicles. The roadway system would be designed to allow small wildlife passage across the site. If aggregate or gravel is used for road surfaces, such as to reduce dust or for low water crossings, portions of road lengths may remain free of gravel in strategic locations in order to facilitate wildlife movement. In addition, wildlife passage culverts may be placed at key locations along Project roads to allow wildlife to avoid the road.

Site Security, Fencing, and Lighting

Controlled Access

Ingress/egress locations would be accessed via locked gates along the Project fenceline located at up to five points connecting to SR 98. The exact locations of the access points would be determined in coordination with CalTrans and based on resource survey results. The Project site would not be accessed from I-8.

Fencing

The Project site would be enclosed with fencing that meets National Electric and Safety Code (NESC) requirements for protective arrangements in electric supply stations. The boundary of the Project site would be secured by up to 6-foot-high chain-link perimeter fences topped with 1 foot of three-strand barbed wire or other fencing as dictated by BLM and/or North American Electric Reliability Corporation (NERC) specifications. The fence would typically be installed approximately 100 feet from the edge of the solar arrays.

Solar Facility Construction

Site Preparation and Grading

The majority of the Project site would be mowed rather than cleared of vegetation. Mass grading of the Project site would not be needed for site preparation due to the relatively flat terrain. Spot grading would be employed for select solar array and storage facility components. Best management practices (BMPs) identified in the Fugitive Dust Control Plan would be implemented during all grading, vegetation removal, and construction activities.

The roads would require vegetation clearing, grading, and compaction. Inverter-transformer station locations would require light grubbing. Due to undulations within the Project site, some areas of grading would be needed within the solar arrays. Where solar site grading is necessary for discrete facilities or within the solar arrays, cut and fill would be balanced to the extent feasible. Some import and export of material would be necessary (refer to Table 2-4). Where excavation is required, most construction activities would be limited to less than 6 feet in depth within the Project Site; however, some excavations, such as those undertaken for the installation of collector poles, may reach depths of 45 feet or more.

Within the solar arrays that do not require grading, mowing and grubbing would be conducted to allow for construction access and installation. Mowing and grubbing involves surface

removal of vegetation, including mechanical mowing and removal of larger vegetation by hand cutting/trimming to the ground surface. The intent is to leave root balls and seeds in place to allow for regrowth of native vegetation after construction. During mowing, collection of mowed vegetation would be considered for future mulching to minimize dust and soil erosion on portions of the site and enhance restoration. A qualified restoration biologist would determine where the collected mulching material should be applied.

Non-native vegetation would be removed to the extent feasible during the construction phase via manual and mechanical methods and herbicide application. Any non-native species found in the Project Application Area that has not been evaluated for its potential to invade or alter surrounding natural lands would be considered a "weed" for purposes of the Restoration and Integrated Weed Management Plan implementation. Cutting, damaging, or uprooting microphyll woodland tree species would be avoided by Project design and BMPs, in accordance with the DRECP Conservation Management Actions (CMAs).

Table 1 Solar Facility Disturbance Details

Project component	Cut/fill quantity	Type of disturbance
Fenced solar facility with arrays and access roads	Balanced	Solar array areas to be mowed and grubbed to provide for construction access and installation
Inverter-transformer stations and electrical collection system	Balanced	Graded and backfilled to an elevation above surrounding grade to avoid flooding for inverter-transformer stations

Note:

[a] Estimated base for the areas requiring import of material is assumed to require a 12-inch depth.

Access Roads

The existing surface area of the access roads would be cleared and compacted using on-site, native materials and may be covered in aggregate for dust or erosion control. The design standard for the access roads within the solar arrays would be consistent with the amount and type of use they will receive.

Solar Array Installation

The steel piles (i.e., cylindrical pipes, H-beams, or similar) supporting the PV panels would be driven into the soil using pneumatic techniques, similar to a hydraulic rock hammer attachment on the boom of a rubber-tired backhoe excavator. The piles typically are spaced 10 feet apart and would be driven into the ground to a depth of 9 to 15 feet.

For single-axis tracking systems, following pile installation, the associated motors, torque tubes, and drivelines (if applicable) would be placed and secured. Some designs allow for PV panels to be secured directly to the torque tubes using appropriate panel clamps. For some single-axis tracking systems and for all fixed-tilt systems, a galvanized metal racking system, which secures

the PV panels to the installed foundations, would then be field-assembled and attached according to the manufacturer's guidelines. A portion of the PV panel racking and modules may be assembled at staging areas.

Inverters, and Electrical Collection System

The Project site electrical collection system would involve installation of inverter-transformer stations from which the medium voltage cabling collection system would lead to the Project substation. Electrical inverter-transformer stations would be delivered to locations around the Project site and placed on concrete pads or steel skids, which would be elevated as necessary with steel piles to allow for stormwater flow beneath the inverter structures. Concrete for foundations of the inverter-transformer stations and other electrical collection facilities would be brought on site from a regional batching plant.

Medium-voltage cabling would be installed either underground or, for the low-impact design portion of the Project, overhead along panel strings in a cable management system to avoid the need for underground cabling and trenching. Cables, if underground, would be installed using direct bury equipment and/or typical trenching techniques, which involves use of a rubber-tired backhoe excavator, trencher, or a "one-pass" machine that digs the trench and lays the cable in a single action to minimize construction activity. Shields or trench shoring would be temporarily installed for safety to brace the walls of the trench if required based on the trench depth. After the excavation, cable rated for direct burial would be installed in the trench, and the excavated soil would be used to fill the trench and compressed to 90- to 95-percent maximum dry density or in accordance with final engineering.

Equipment and Machinery

The following equipment would be used to construct the Project:

- Aerial lift
- Crane
- Forklift
- Grader
- Pile drivers
- Roller
- Rubber tired loaders
- Rubber tired dozer
- Skid steer loaders
- Tractor/loader/backhoe
- Trencher
- Welders
- One-pass

Section 7: Impact Quantities

Temporary impacts to waters of the State are summarized in Table 2 below. Permanent impacts to waters of the State are summarized in Table 3. All waters that would be impacted by the Project are classified as riverine or ephemeral (streams that only persist for a short period of time). The locations of temporary and permanent impacts to waters are shown on Figure 7.

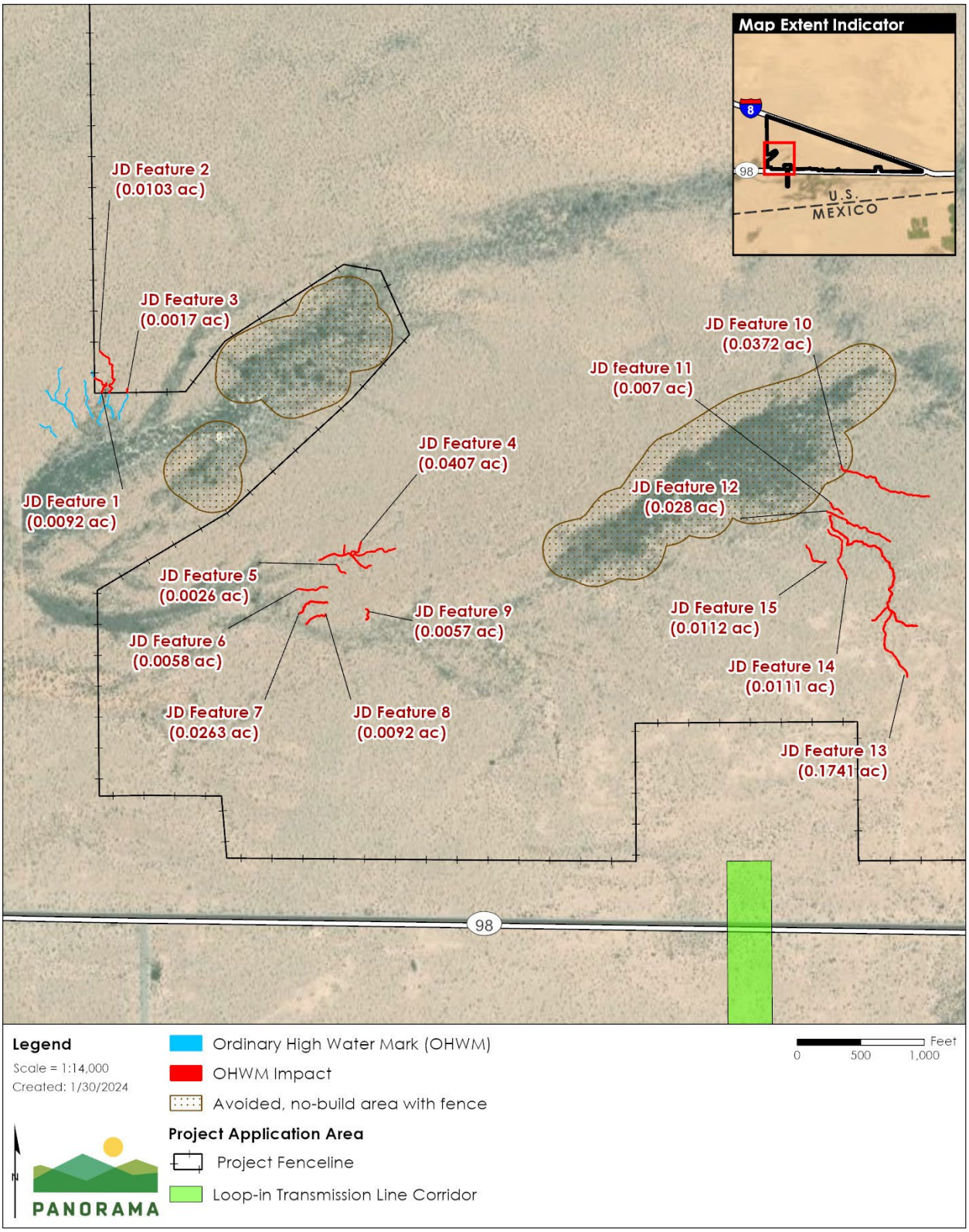
Table 2 Temporary Impact to Waters of the State

No.	Length of Impact (Feet)	Area of Impact (Acres)	Type of Impact/Facility	Material	Volume of Material (cy)
16	348	0.016	Temporary road	Native Fill	51
17	895	0.042	Temporary road	Native Fill	134
Total	**1,243**	**0.057**	**N/A**	**N/A**	**185**

Table 3 Permanent Impact to Waters of the State

No.	Length of Impact (Feet)	Area of Impact (Acres)	Type of Impact/Facility	Material	Volume of Material (cy)
1	381	0.018	Fence	Fence and Native Fill	127
2	912	0.028	PV Array	Native Fill, Steel	844
3	282	0.013	PV Array	Native Fill, Steel	636
4	1125	0.041	PV Array	Native Fill, Steel	1,911
5	116	0.003	PV Array	Native Fill, Steel	105
6	254	0.006	PV Array	Native Fill, Steel	227
7	289	0.026	PV Array	Native Fill, Steel	383
8	201	0.009	PV Array	Native Fill, Steel	363
9	126	0.006	PV Array	Native Fill, Steel	112
10	812	0.037	PV Array	Native Fill, Steel	1,814
11	153	0.007	PV Array	Native Fill, Steel	206
12	611	0.028	PV Array	Native Fill, Steel	1,091
13	2295	0.174	PV Array	Native Fill, Steel	5,101
14	486	0.011	PV Array	Native Fill, Steel	649
15	247	0.011	PV Array	Native Fill, Steel	330
Total	**8,286**	**0.417**	**N/A**	**N/A**	**3,927**

Figure 7 Impacts to Waters of the State



Additional Direct and Indirect Impact Information

Direct Impact Description

The roads would require vegetation clearing, grading, and compaction. Inverter-transformer station locations would require light grubbing. Solar PV panels would potentially also require light grubbing. Where excavation is required, most construction activities would be limited to less than 6 feet in depth within the Project site; however, some excavations, such as those undertaken for the installation of gen-tie poles and dead-end structures, may reach depths of 45 feet or more. Temporary areas of disturbance would be restored in accordance with the Restoration and Integrated Weed Management Plan (Appendix M.5).

Construction activities would also involve the handling, use, and storage of limited quantities of hazardous materials, which would be limited to waste oil, oil filters, oil rags, solvents, fuels, welding materials, empty hazardous materials containers, spent batteries, and controlled substances. As regulated hazardous materials would be present on site, storage procedures would be dictated by the Hazardous Materials Business Plan (HMBP) and Spill Prevention Control and Countermeasures (SPCC) Plan that would be developed prior to construction in compliance with State and federal regulations for management of hazardous materials (California Health and Safety Code, Division 20, Chapter 6.95, Article 1, Sections 2550 to 25519; California Code of Regulations, Title 19, Division 2, Chapter 4, Article 4, Sections 2620 to 2671; Clean Water Act §311). The HMBP and SPCC Plan would specify safe handling and emergency response procedures should an unintended lead or release of hazardous materials occur. Implementation of safety and response measures during Project construction would minimize the potential for hazardous materials to be released into the environment such that water resources would not be substantially degraded.

Indirect Impact Description

The Project Application Area drains into the Alamo River, which is on the 303(d) list with 20 TMDLs, as defined in the Basin Plan (SWRCB 2022). The Alamo River is on the 303(d) list and has a TMDL for sediment in addition to multiple pesticides and chemicals in agricultural runoff. The TMDL for sediment focuses on controlling sediment in agricultural runoff. The Project would not release any pesticides or pollutants that are listed on the 303(d) list but has the potential to result in increased erosion and sedimentation as a result of ground disturbance.

The Applicant would be required to apply for coverage under a National Pollution Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Order numbers WQ 2022-0057-DWQ and CAS000002 (Construction General Permit), and any following versions applicable at the time of construction. The Construction General Permit was developed to ensure that stormwater is managed and erosion is controlled on construction sites. The Construction General Permit requires preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP), which requires implementation of best management practices (BMPs) to control stormwater run-on and runoff from construction work sites. BMPs may include, but would not be limited

to, physical barriers to prevent erosion and sedimentation, construction of sedimentation basins, limitations on work periods during storm events, use of infiltration swales, protection of stockpiled materials, and a variety of other measures to be identified by a qualified SWPPP developer that would substantially reduce or prevent erosion during construction.

The Applicant has also proposed to implement a Drainage, Erosion, and Sediment Control Plan (DESCP) to reduce the impact of run-off during construction, operation, and maintenance (see PDF HWQ-1). The DESCP would ensure proper protection of water quality and soil resources, address disturbed soil stabilization treatments in the Project area for both road and non-road surfaces, and identify all methods used for temporary and final stabilization of inactive areas. The Plan would cover all Project component areas subject to disturbance. The DESCP would cover site mobilization, excavation, construction, and post-construction (i.e., operation and maintenance) activities. Site monitoring would involve inspections to ensure that the BMPs required by the Project-specific SWPPP and DESCP are properly maintained and reducing the risk of run-off to an adequate level. Implementation of the Project-specific SWPPP and DESCP would ensure that downstream water bodies are not affected by sediment transport.

Cumulative Impacts

A list of closely related past, present, and reasonably foreseeable future projects is provided in Table 4-1 and shown in Figure 4-1 in Chapter 4: Environmental Analysis of the AFC.

Degrade Surface or Groundwater Quality

The cumulative projects in the Alamo River watershed have created a significant impact on water quality, as evidenced by the 303(d) listing and established TMDLs on the Alamo River and All-American Canal. The cumulative impact on water quality is generally due to the historic and existing agricultural operations, which have resulted in pesticides, sediment, and other chemicals present in agricultural runoff. The proposed projects within the Alamo River watershed would involve ground disturbance and, in combination with the Project, could contribute additional sediment load to the Alamo River. Increased sediment loading to the Alamo River would be a significant cumulative impact as the Alamo River is already impaired for sediment.

The Project would comply with the requirements of the Construction General Permit and would implement BMPs, PDFs, and CMAs to protect water quality and control sediment in runoff. Because the Project would implement BMPs to control sediment during construction and operation and maintenance, the Project's contribution to a cumulatively considerable impact on water quality would be less than significant.

Erosion, Flooding, or Risk Release of Pollutants

The cumulative projects within 6 miles of the Project include a number of operational geothermal projects, several operational transmission lines, an IID reservoir, two proposed solar facilities, and a proposed transmission line. The existing operational projects are part of the baseline hydrologic and drainage conditions in the area that were analyzed as part of the Project baseline analysis. The proposed solar projects would be located northwest of the Project and

within the same watershed as the Project. The solar projects have a potential to result in cumulative impacts on erosion and flooding and risk release of pollutants in combination with the Project because the cumulative projects would require ground disturbance, including some degree of grading, and would install additional impervious surfaces similar to those of the Project. The proposed solar projects and the Project are all required to comply with the State of California Construction General Permit and to implement stormwater management BMPs and pollution prevention BMPs. The proposed solar projects would also be required to comply with State and federal laws for management of hazardous materials, including preparing any applicable HMBP and SPCC. Because the Project and the cumulative projects would need to comply with State and federal laws, which define specific requirements for reduction of erosion and procedures to offset post-project changes in runoff to avoid flooding or release of pollutants, the cumulative impact would be less than significant.

Section 8: Avoidance and Minimization Measures

As part of the Project, the Applicant is committed to implementing BMPs, PDFs, and CMAs. The Applicant has also prepared mitigation plans as required by the BLM.

Best Management Practices and Project Design Features
The Project would implement the following BMPs and PDFs related to biological resources:

Direct Impact Avoidance and Minimization

- **BMP-17**
  - **Staging Areas.** As practical, staging and parking areas shall be located within the Project site to minimize habitat disturbance in areas adjacent to the site.
- **BMP-18**
  - **Construction Activities.** Before beginning construction, delineate the boundaries of areas to be disturbed including roads, borings, soil testing sites, and pull and tensioning areas prior to any ground disturbance, and confine disturbances, project vehicles, and equipment to the delineated project areas.
- **BMP-19**
  - **Construction.** To the extent practicable, work personnel shall stay within the ROW and/or easements.
- **BMP-21**
  - **Traffic.** Existing access roads, utility corridors, and other infrastructure shall be used to the maximum extent feasible.
- **BMP-24**
  - **Habitat.** To reduce the extent of habitat disturbance during construction and operation, existing access roads, utility corridors, and other infrastructure shall be used to the maximum extent feasible and foot and vehicle traffic through undisturbed areas shall be minimized.
- **BMP-26**
  - **Habitat.** Areas left in a natural condition during construction (e.g., wildlife crossings) shall be maintained in as natural a condition as possible within safety and operational constraints.
- **BMP-32**
  - **Vegetation.** Project-specific vegetation management plans shall investigate possibilities of revegetating parts of the Project Area.
- **BMP-33**
  - **Noxious Weeds.** The establishment and spread of invasive species and noxious weeds within the Project Area and loop-in transmission line corridors shall be

prevented. The areas shall be monitored regularly, and invasive species should be eradicated immediately.

- **BMP-34**
  - **Herbicide Use.** Only herbicides with low toxicity to wildlife and nontarget native plant species shall be used, as determined in consultation with the BLM, BOR, CEC, and USFWS. The typical herbicide application rate shall be used rather than the maximum application rate, where effective. All herbicides shall be applied in a manner consistent with their label requirements and in accordance with guidance provided in the Final PEIS on vegetation treatments using herbicides (BLM 2007c).
- **BMP-35**
  - **Waste.** Construction debris, especially treated wood, shall not be stored or disposed of in areas where it could come in contact with aquatic habitats.
- **BMP-36**
  - **Reclamation.** Access roads shall be reclaimed when they are no longer needed.
- **BMP-37**
  - **Reclamation.** All holes and ruts created by removal of structures and access roads shall be filled or graded.
- **BMP-38**
  - **Reclamation.** While structures are being dismantled, care shall be taken to avoid leaving debris on the ground in areas in which wildlife regularly move.
- **BMP-39**

  Reclamation. The facility fence shall remain in place for several years following decommissioning to help reclamation (e.g., would preclude large mammals and vehicles from disturbing revegetation efforts)
- **PDF BIO-3**
  - **Minimization of Vegetation and Habitat Impacts.** Prior to construction, operation and maintenance, or decommissioning activities, authorized work areas shall be clearly delineated by the contractor. These areas shall include, but not be limited to, staging areas, access roads, and sites for temporary placement of construction materials and spoils. Delineation may be implemented with "fencing" or staking to clearly identify the limits of work and will be verified by the Lead Biologist. No paint or permanent discoloring agents shall be applied to rocks or vegetation (to indicate surveyor construction activity limits or for any other purpose). Fencing/staking shall remain in place for the duration of work activities. Spoils shall be stockpiled in disturbed areas. All disturbances, vehicles, and equipment shall be confined to the fenced/flagged areas.

    Construction activities shall minimize soil and vegetation disturbance to minimize impacts to soil and root systems. Upon completion of construction

activities in any given area, all unused materials, equipment, staking and flagging, and refuse shall be removed and properly disposed of, including wrapping material, cables, cords, wire, boxes, rope, broken equipment parts, twine, strapping, buckets, and metal or plastic containers. Any unused or leftover hazardous products shall be properly disposed of off site. Hazardous materials shall be handled and spills or leaks promptly corrected and cleaned up according to applicable requirements. Vehicles shall be properly maintained to prevent spills or leaks. Hazardous materials, including motor oil, fuel, antifreeze, hydraulic fluid, grease, shall not be allowed to enter drainage channels.

  - **Low-impact site preparation.** Native vegetation shall be allowed to recover from rootstocks and seed bank wherever facilities do not require permanent vegetation removal (e.g., access roads, foundations, paved areas, fire clearance requirements) within the perimeter fenceline of the Project solar site and under solar arrays. Vegetation height and density shall be managed as needed for operation and maintenance and fire safety, but vegetation management shall otherwise focus on maintaining habitat and soil conditions.

- **PDF BIO-4**

  Integrated Weed Management Plan. The Applicant shall prepare and implement an Integrated Weed Management Plan (IWMP) to minimize or prevent invasive weeds from infesting the site or spreading into surrounding habitat. The IWMP must comply with existing BLM plans and permits, including the Vegetation Treatments Using Herbicides and Vegetation Treatment Using Aminopyralid, Fluroxypyr, and Rimsulfuron PEISs (BLM 2007; 2016a), including requiring a Pesticide Use Permit approved by the BLM and BOR. The IWMP shall identify weed species occurring or potentially occurring in the Project area, means to prevent their introduction or spread (e.g., vehicle cleaning and inspections), monitoring methods to identify infestations, and timely implementation of manual or chemical (as appropriate) suppression and containment measures to control or eradicate invasive weeds. The IWMP shall identify herbicides that may be used for control or eradication, and avoid herbicide use in or around any environmentally sensitive areas. The IWMP shall also include a reporting schedule, to be implemented by the Lead Biologist.

Indirect Impact Avoidance and Minimization

- **PDF BIO-8**
  - **Streambed and watershed protection.** Prior to construction activities in jurisdictional waters of the State, the Applicant will obtain a Lake and Streambed Alteration Agreement (LSAA) from the CDFW. A Stormwater Pollution Prevention Plan (SWPPP) or SWPPP-equivalent document may also

be required and shall be prepared by a qualified engineer or qualified individual and shall be implemented before and during construction. The SWPPP shall include BMPs for stormwater runoff quality control measures, management for concrete waste, stormwater detention, watering for dust control, and construction of perimeter sediment controls, as needed.

The Applicant will implement BMPs identified below to minimize adverse impacts to streambeds and watersheds.

- Vehicles and equipment will not be operated in ponded or flowing water except as specified by resource agencies.
- The Applicant will minimize road building, construction activities, and vegetation clearing within ephemeral drainages.
- The Applicant will prevent water containing mud, silt, or other pollutants from grading or other activities from entering ephemeral drainages or being placed in locations that may be subjected to high storm flows.
- Spoil sites will not be located within 30 feet from the boundaries of drainages or in locations that may be subjected to high storm flows, where spoils might be washed back into drainages.
- Raw cement/concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, unapproved herbicides, or any other substances that could be hazardous to vegetation or wildlife resources resulting from Project-related activities will be prevented from contaminating the soil and/or entering ephemeral drainages. The Applicant shall ensure that safety precautions specified by this measure, as well as all other safety requirements of other measures and permit conditions, are followed during all phases of the Project.
- When operations are completed, any excess materials or debris will be removed from the work area. No rubbish will be deposited within 150 feet of the high-water mark of any drainage during construction, operation and maintenance, and decommissioning the Project.
- No equipment maintenance will occur within 150 feet of any qualifying jurisdictional waterway (waterway to be avoided during construction). No petroleum products or other pollutants from the equipment will be allowed to enter these areas or enter any off-site state jurisdictional waters under any flow.
- With the exception of the drainage control system installed for the Project, the installation of bridges, culverts, or other structures will be such that water flow (velocity and low flow channel width) is not impaired. Bottoms of temporary culverts will be placed at or below stream channel grade.
- No broken concrete, debris, soil, silt, sand, bark, slash, sawdust, rubbish, or other organic or earthen material from any construction or associated activity of whatever nature will be allowed to enter into, or be placed where it may be washed by rainfall or runoff into, off-site State jurisdictional waters.

- Stationary equipment such as motors, pumps, generators, and welders located within or adjacent to a drainage will be positioned over drip pans. Stationary heavy equipment will have suitable containment to handle a catastrophic spill/leak. Clean up equipment such as brooms, absorbent pads, and skimmers will be on site prior to the start of construction.
- The cleanup of all spills will begin immediately. BLM, BOR, CEC, and CDFW will be notified immediately by the Applicant of any spills and will be consulted regarding clean-up procedures if these spills occurred in a qualifying jurisdictional waterway.