3.4.12 Mineral Resources

Would the project:

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?	☐	☐	☐	☒
b)	Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

a. Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state? (No Impact)

The PV solar facility would be located on the Hellman OGPF site, which is a known oil and gas mineral resource. The PV solar facility would not impact the development or production of oil and gas from the Hellman Ranch site. Therefore, no impacts would occur because of the proposed Project.

b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? (No Impact)

The loss of known mineral resources of value to the region would not occur as a result of implementation of the PV solar project. The project site is not delineated as an important mineral resource recovery site on the City of Seal Beach General Plan or any other local plan. Therefore, no impacts would occur because of the proposed Project.

3.4.13 Noise

Would the project:

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
b)	Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c)	For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? (Less than Significant with Mitigation Incorporated)

Chapter 7.15 of the SBMC sets noise standards of 65 dBA at commercial properties at any time, 55 dBA at residential properties from 7:00 a.m. to 10:00 p.m., and 50 dBA at residential properties from 10:00 p.m. to 7:00 a.m. Section 7.15.025 of the SBMC exempts construction noise when performed between 7:00 a.m. and 8:00 p.m. on weekdays, and between 8:00 a.m. and 8:00 p.m. on Saturday and never on Sundays or city-observed federal holidays.

The introduction of construction in this area would expose residents of the area to intermittently higher noise levels depending on the type of equipment being used during construction. Although the increase in noise in the proposed Project area would be greater than that which currently exists, it would be temporary in nature, would only occur during normal working hours, and would cease upon completion of construction.

The nearest residence would be about 480 feet from the construction site. Table 3-8 provides an estimate of the peak noise levels that would be expected during each phase of the construction activities. The peak construction noise would be expected to occur during the site preparation phase, with a noise level of approximately 68 dBA at the nearest residence. This phase of the project would only last 3 days.

Table 3-8 Peak Construction Noise Levels

Phase/Equipment	Quantity	Noise Level (dBA)	Distance (feet)
Site Preparation			
Rubber Tire Dozer	1	82	50
Grader	1	85	50
Backhoe/Loader	1	79	50
Water Truck	1	74	50
Combined Equipment Noise Level		***88***	***50***
Noise Level at Nearest Property Line		***96***	***20***
Noise Level at Nearest Receptor		***69***	***450***
Noise Level at Nearest Residential Receptor		***68***	***480***
Support Pile Installation			
Backhoe/Loader	1	79	50
Forklift	1	75	50
Generator	1	81	50
Water Truck	1	74	50
Combined Equipment Noise Level		***84***	***50***
Noise Level at Nearest Property Line		***92***	***20***
Noise Level at Nearest Receptor		***65***	***450***
Noise Level at Nearest Residential Receptor		***65***	***480***
Solar PV System, Equipment, and Conduit Installation			
Forklift	1	75	50
Backhoe/Loader	1	79	50
Generator	1	81	50
Welding Machine	1	74	50

Table 3-8 Peak Construction Noise Levels

Phase/Equipment	Quantity	Noise Level (dBA)	Distance (feet)
Water Truck	1	74	50
Combined Equipment Noise Level		***85***	***50***
Noise Level at Nearest Property Line		***93***	***20***
Noise Level at Nearest Receptor		***65***	***450***
Noise Level at Nearest Residential Receptor		***65***	***480***

Source: FHWA's Roadway Construction Noise Mode Database (2006). Table 9.1

Compliance with the City regulations regarding limitations on construction hours and noise restrictions would reduce potential project impacts to less than significant levels. Further, the City's standard construction regulations require all construction vehicles or equipment, fixed or mobile, to be equipped with properly operating and maintained mufflers to minimize noise.

Noise from operation of the solar PV project would be generated by the Inverters and transformers during daylight hours, when the panels are generating electrical power. Table 3-9 provides a summary of the noise levels associated with the inverters and transformers.

Table 3-9 Peak Operational Noise Levels

Equipment	Quantity	Nearest Property Line		Nearest Residential Receptor	
		Distance (ft)	Noise Level (dBA)	Distance (ft)	Noise Level (dBA)
Inverters (1-6)	6	30	54	1,030	23
Inverters (7-11)	5	85	44	940	23
Inverters (12,14)	2	25	50	550	24
Inverters (13,15,16)	3	130	38	500	26
Transformer	1	110	22	1,150	1

Noise would only occur during daylight hours when electrical power is being generated.

The operational noise levels would be below the 55 dBA standard set for residential properties between the hours of 7:00 a.m. to 10:00 p.m. at the nearest property line. Therefore, operational noise levels would be less than significant.

b. Generation of excessive groundborne vibration or groundborne noise levels? (Less Than Significant)

There should be very low levels of ground borne vibration or noise during construction due to the equipment that is being used for this project. None of the construction equipment would generate significant vibration levels, and any vibration would be transient. The operation of the PV solar facility would not result in any ground borne vibration or noise. Table 3-10 provides data on vibration annoyance criteria.

The project would not involve the use of pile drivers or other equipment that typically generate large amounts of ground borne vibration or noise. The Seal Beach Municipal Code states that no use, activity, or process shall produce vibrations that are perceptible without instruments by a reasonable person at or beyond the property line of the site on which they are situated (Seal Beach Municipal Code §11.4.10.020 Performance Standards).

Table 3-10 Human Response to Transient Vibration

Human Response	Maximum PPV (in/sec)
Barely Perceptible	0.035
Distinctly Perceptible	0.24
Strongly Perceptible	0.9
Severe	2.0

Source: Caltrans 2013.

Table 3-11 provides estimated vibration levels for construction equipment as a function of distance from the source.

Table 3-11 Estimated Construction Equipment Vibration Levels

Equipment	Vibration Level (in/sec)		
	at 25-feet	at 60-feet	at 450-feet
Backhoe/Caisson Drilling	0.089	0.024	0.001
Small Bulldozer	0.003	0.001	0.000
Large Truck	0.076	0.020	0.001

Source: Adapted from FTA 2006 and Caltrans 2013.
Property Boundary-60 feet; Nearest Receptor-450 feet.

Based on the threshold for transient vibration of 0.035 in/sec, construction equipment used for the PV Solar Project would not exceed the threshold beyond the property boundary. Therefore, vibration impacts would be less than significant.

c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? (No Impact)

The project is not located within an airport land use plan or in the vicinity of a public or private airport. The project site is located over four miles from the Los Alamitos Joint Forces Training Base (JFTB), the closest such site, and is not within the Airport Environs Land Use Plan (AELUP) for that facility.

Avoidance, Minimization and/or Mitigation Measures

Mitigation Measure N-1 – Construction, grading, and haul truck deliveries shall not take place between the hours of 6:00 p.m. and 7:00 a.m. on weekdays, 6:00 p.m. and 8:00 a.m. on Saturday, or at any time on Sunday or a national holiday.

3.4.14 Population/Housing

Would the project:

		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒