

**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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The construction workers would be drawn from the local Los Angeles Basin workforce. Construction of the PV Solar Project would take approximately three to four months. No new workers would be required to operate the PV solar facility. The existing Hellman Ranch OGPF staff would be adequate to monitor the facility.

**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)? (No Impact)**

The project involves the construction of a PV solar facility within the existing Hellman Ranch OGPF property. Given the limited staffing needs for the construction of the project, all required workers would be drawn from the local Los Angeles Basin workforce. As such, the project would not generate any population growth. Therefore, no impacts on the local population levels would occur.

**b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? (No Impact)**

The project would not displace existing housing as no housing exists on the proposed Project site. The project would not displace substantial numbers of people since it does not propose demolition of residential units. All construction and operational activities would occur within the existing Hellman Ranch OGPF property. Therefore, there would be no impact on housing from the proposed Project.

### 3.4.15 Public Services

Would the project:

	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i. Fire protection?				
ii. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
v. Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>