

# **Appendix E Noise Technical Report**

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# CEQA Noise Technical Report

January 2025

Los Angeles County Department of Beaches & Harbors  
Sand Compatibility & Opportunistic Use Program (SCOUP)  
for Los Angeles County Beaches



Prepared for:

Prepared by:



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# NOISE TECHNICAL REPORT

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## SCOUP FOR LOS ANGELES COUNTY BEACHES

### 1.1 INTRODUCTION

This report presents an analysis of potential noise impacts associated with the Los Angeles County Department of Beaches and Harbors (LACDBH) Sand Compatibility and Opportunistic Use Program (SCOUP) Project (the “Project”). The Project is a beach nourishment program that uses available sediment sources in an effort to restore eroding beach shorelines. The five beaches included in the Project are Zuma Beach (City of Malibu), Will Rogers State Beach (City of Los Angeles), Dockweiler State Beach (City of Los Angeles), Manhattan Beach (City of Manhattan Beach), and Redondo Beach (City of Redondo). All five beaches are operated by the LACDBH; thus, they serve as the CEQA Lead Agency for the Project.

Project construction activities are opportunistic and may be conducted year-round. For each beach site, it is assumed approximately 5 months of construction (Monday thru Friday only) could occur in a given year. Construction would consist of sand being delivered to each respective beach site by truck, dumped into a pile, and then transported to the placement site by earthmoving equipment. It is assumed that each beach site would require 10 automobile, 71 haul truck, and one fuel truck round trips per day. Each beach site would require two bulldozers, two front-end loaders, and one sweeper/scrubber for sand loading/unloading, grading and recontouring. However, for the Redondo Beach site, two scrapers would be used instead of front-end loaders because the distance is too far from the sand stockpile area to the sand placement area for front-end loaders.

This report presents an overview of existing noise conditions at the Project site, an overview of noise background information, noise regulatory setting, and an analysis of potential noise impacts of the Project. All noise impacts were found to be **less than significant**.

### 1.2 SETTING

#### 1.2.1 NOISE SETTING

##### Noise Descriptors

Sound is mechanical energy transmitted by pressure waves through a medium such as air. Noise is defined as unwanted sound. Sound pressure level has become the most common descriptor used to characterize the “loudness” of an ambient sound level. Sound pressure level is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing, and 120 to 140 dB corresponding to the threshold of pain. Decibels are measured using different scales,

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and it has been found that A-weighting of sound levels best reflects the human ear's reduced sensitivity to low frequencies, and correlates well with human perceptions of the annoying aspects of noise. The A-weighted decibel scale (dBA) is cited in most noise criteria. All references to decibels (dB) in this report will be A-weighted unless noted otherwise.

Several time-averaged scales represent noise environments and consequences of human activities. The most commonly used noise descriptors are the equivalent A-weighted sound level over a given time period (Leq)<sup>1</sup>; average day-night 24-hour average sound level (Ldn)<sup>2</sup> with a nighttime increase of 10 dB to account for sensitivity to noise during the nighttime; and community noise equivalent level (CNEL)<sup>3</sup>, also a 24-hour average that includes both an evening and a nighttime sensitivity weighting.

## **Noise Attenuation**

Stationary point sources of noise, including construction equipment, attenuate (lessen) at a rate of 6 to 7.5 dB per doubling of distance from the source, depending on ground absorption. Physical barriers located between a noise source and the noise receptor, such as berms or sound walls, would increase the attenuation that occurs by distance alone. Noise from large construction sites would have characteristics of both "point" and "line" sources, so attenuation would likely range between 4.5 and 7.5 dB per doubling of distance.

### **1.2.2 REGULATORY SETTING**

The five beaches included in the proposed project are Zuma Beach (City of Malibu), Will Rogers State Beach (City of Los Angeles), Dockweiler State Beach (City of Los Angeles), Manhattan Beach (City of Manhattan Beach), and Redondo Beach (City of Redondo).

#### **City of Malibu General Plan Noise Element**

The City of Malibu General Plan Noise Element aims to provide guidance for comprehensive local programs to control and abate excessive noise and to protect residents from adverse noise impacts. The element provides information on the existing and projected noise environment and includes goals, objectives, policies and implementation programs to ensure an acceptable noise environment. The element also identifies criteria to be used by decision makers in evaluating the noise implications of proposed projects (City of Malibu, 1993). The Noise Element states that the dominant noise source in Malibu is roadway traffic noise from Pacific Coast Highway.

#### **City of Malibu Municipal Code**

The City of Malibu's Noise Ordinance (Chapter 8.24) controls unnecessary, excessive and annoying noise and vibration in Malibu. The following regulations are relevant to the Project:

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1 The Equivalent Sound Level (Leq) is a single value of a constant sound level for the same measurement period duration, which has sound energy equal to the time-varying sound energy in the measurement period.

2 Ldn is the day-night average sound level that is equal to the 24-hour A-weighted equivalent sound level with a 10-decibel penalty applied to night between 10:00 p.m. and 7:00 a.m.

3 CNEL is the average A-weighted noise level during a 24-hour day, obtained by addition of 5 decibels in the evening from 7:00 to 10:00 p.m., and an addition of a 10-decibel penalty in the night between 10:00 p.m. and 7:00 a.m.

Per Section 112.05, operating or causing the operation of any tools, equipment, impact devices, derricks or hoists used in construction, chilling, repair, alteration, demolition or earthwork, on weekdays between the hours of seven p.m. and seven a.m., before eight a.m. or after five p.m. on Saturday, or at any time on Sundays or holidays, is prohibited.

### **City of Los Angeles General Plan Noise Element**

The City of Los Angeles General Plan Noise Element addresses noise mitigation regulations, strategies and programs and delineates federal, state, and city jurisdiction relative to rail, automotive, aircraft and nuisance noise (City of Los Angeles, 1999). Exhibit B, Los Angeles International Airport Noise Exposure Contour, shows that Dockweiler Beach is within the 65 dB, CNEL noise contour.

### **City of Los Angeles Municipal Code**

The City of Los Angeles Municipal Code prohibits unnecessary, excessive and annoying noises from all sources. The following regulations are relevant to the Project:

Per Section 41.40(a), No person shall, between the hours of 9:00 P.M. and 7:00 A.M. of the following day, perform any construction or repair work of any kind upon, or any excavating for, any building or structure, where any of the foregoing entails the use of any power driven drill, riveting machine excavator or any other machine, tool, device or equipment which makes loud noises to the disturbance of persons occupying sleeping quarters in any dwelling hotel or apartment or other place of residence. In addition, the operation, repair or servicing of construction equipment and the job-site delivering of construction materials in such areas shall be prohibited during the hours herein specified. Any person who knowingly and wilfully violates the foregoing provision shall be deemed guilty of a misdemeanor punishable as elsewhere provided in this Code.

The City of Los Angeles Department of Building and Safety's (DBS) Website provides the current permitted construction and demolition hours<sup>4</sup>. The DBS states that in consideration to residents, all major construction/demolition must be performed within a span of permitted hours that are listed as follows:

- Monday – Friday: 7:00 a.m. to 9:00 p.m. (consistent with Section 41.40(a))
- Saturdays and National Holidays: 8:00 a.m. to 6:00 p.m.
- Sundays: No work permitted.

Per Section 112.05, between the hours of 7:00 a.m. and 10:00 p.m., in any residential zone of the City or within 500 feet thereof, no person shall operate or cause to be operated any powered

<sup>4</sup> <https://www.ladbs.org/services/core-services/inspection/inspection-special-assistance/permitted-construction-demolition-hours#:~:text=Permitted%20Construction%2FDemolition%20Hours%20are,00%20A.M.%20%2D%206%3A00%20P.M.&text=To%20report%20a%20non%2Dallowable,at%20311%20or%20click%20here.>

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equipment or powered hand tool that produces a maximum noise level exceeding the following noise limits at a distance of 50 feet therefrom:

- a. 75dB(A) for construction, industrial, and agricultural machinery including crawler-tractors, dozers, rotary drills and augers, loaders, power shovels, cranes, derricks, motor graders, paving machines, off-highway trucks, ditchers, trenchers, compactors, scrapers, wagons, pavement breakers, compressors and pneumatic or other powered equipment;
- b. 75dB(A) for powered equipment of 20 HP or less intended for infrequent use in residential areas, including chain saws, log chippers and powered hand tools;
- c. 65dB(A) for powered equipment intended for repetitive use in residential areas, including lawn mowers, backpack blowers, small lawn and garden tools and riding tractors;

The noise limits for particular equipment listed above in (a), (b) and (c) shall be deemed to be superseded and replaced by noise limits for such equipment from and after their establishment by final regulations adopted by the Federal Environmental Protection Agency and published in the Federal Register.

Said noise limitations shall not apply where compliance therewith is technically infeasible. The burden of proving that compliance is technically infeasible shall be upon the person or persons charged with a violation of this section. Technical infeasibility shall mean that said noise limitations cannot be complied with despite the use of mufflers, shields, sound barriers and/or other noise reduction device or techniques during the operation of the equipment.

### **City of Redondo Beach Municipal Code**

The City of Redondo Beach Noise Ordinance (Chapter 24) provides the adopted hours of construction. The following regulations are relevant to the Project:

Per Section 4-24.503, all construction activity shall be prohibited, except between hours of 7:00 a.m. and 6:00 p.m. on Monday, Tuesday, Wednesday, Thursday, and Friday and between the hours of 9:00 a.m. and 5:00 p.m. on Saturday. No construction activity shall be permitted on Sunday, or the days on which the holidays designated as Memorial Day, the Fourth of July, Labor Day, Thanksgiving Day, Christmas Day, and New Year's Day are observed.

### **City of Manhattan Beach General Plan Noise Element**

The City of Malibu General Plan Noise Element strives to substantially reduce noise and its impacts within the urban environment, with a focus on protecting residential neighborhoods, schools, and similar noise-sensitive uses (City of Manhattan Beach, 2003). The Noise Element states that in Manhattan Beach, vehicular traffic represents the primary noise source.

### **City of Manhattan Beach Municipal Code**

The City of Manhattan Beach Municipal Code provides the adopted hours of construction. The following regulations are relevant to the Project:

Per Section 9.44.030 (A), construction activity shall only occur between 7:30 a.m. and 6:00 p.m. on weekdays, and between 9:00 a.m. to 6:00 p.m. on Saturdays. (B) There shall be noise construction on Sundays or on City-recognized holidays.

### 1.2.3 PROJECT SITES

To quantify existing ambient noise levels, RCH Group conducted ten short-term (15-minute noise measurements) which included 2 measurements at each Project site. Short-term measurements were made using a Larson Davis SoundTrack LxT Sound Level Meter calibrated before and after the measurements. **Table NOI-1, Existing Noise Levels**, summarizes the locations and results of the noise measurements. **Figures 1 through 5 in Appendix A** show the measurement locations for each Project site. Based on observations from the short-term measurements, the main source of noise in the Project vicinity of each site is traffic noise from local highways and roadways. Additional noise sources included aircraft, police vehicles, and recreational users at the beach.

**TABLE NOI-1 EXISTING NOISE LEVELS**

<b>Location</b>	<b>Time Period</b>	<b>Noise Levels (dB)</b>	<b>Noise Sources</b>
Site 1: <b><u>Zuma Beach.</u></b> Intersection of Morning View Drive and Highway 1. Approximately 90 feet away from nearest residence.	Monday May 27, 2024 10:25 a.m. to 10:40 a.m.	5-minute Leq's: 75, 71, 74	Major noise source is constant traffic noise from Highway 1. Constant traffic noise was 70-95 dB.
Site 2: <b><u>Zuma Beach.</u></b> At beach area, at approximate location of the primary sand placement area.	Monday May 27, 2024 10:44 a.m. to 10:59 a.m.	5-minute Leq's: 64, 65, 66	Police ATV vehicles passing along the shore was 73 dB. Constant noise from the ocean waves was 64-66 dB. People at the beach was 50-58 dB.
Site 3: <b><u>Will Rogers State Beach.</u></b> Approximately 15 feet south of Highway 1.	Monday May 27, 2024 11:40 a.m. to 11:55 a.m.	5-minute Leq's: 79, 79, 79	Major noise source is constant traffic noise from Highway 1. Constant traffic noise was 75-90 dB.
Site 4: <b><u>Will Rogers State Beach.</u></b> At beach area, on the jetty, at approximate location of the primary sand placement area.	Monday May 27, 2024 12:01 p.m. to 12:16 p.m.	5-minute Leq's: 67, 66, 71	Police helicopter overhead was 90 dB. Constant noise from the ocean waves was 66-69 dB.
Site 5: <b><u>Dockweiler Beach.</u></b> Approximately 15 feet south of Vista Del Mar.	Monday May 27, 2024 2:06 p.m. to 2:21 p.m.	5-minute Leq's: 70, 71, 65	Major source of noise was aircraft departing from Los Angeles International Airport which ranged from 78-85 dB. Traffic



			noise from Vista Del Mar was 55-68 dB.
Site 6: <b><u>Dockweiler Beach.</u></b> At beach area, at approximate location of the primary sand placement area.	Monday May 27, 2024 2:25 p.m. to 2:40 p.m.	5-minute Leq's: 67, 74, 73	Major source of noise was aircraft departing from Los Angeles International Airport which ranged from 78-89 dB. Traffic noise from Vista Del Mar was 55-68 dB. Constant noise from the ocean waves was 60-62 dB. People at the beach was 50-58 dB.
Site 7: <b><u>Redondo Beach.</u></b> Intersection of George Freeth Way and Esplanade. Approximately 60 feet away from nearest residence.	Monday May 27, 2024 3:47 p.m. to 4:02 p.m.	5-minute Leq's: 68, 61, 65	Motorcycle passing by was 89 dB. Traffic noise on Esplanade was 58-70 dB.
Site 8: <b><u>Redondo Beach.</u></b> At beach area, at approximate location of the primary sand placement area.	Monday May 27, 2024 4:05 p.m. to 4:20 p.m.	5-minute Leq's: 64, 64, 65	Constant noise from the ocean waves was 64-65 dB. People at the beach was 60-69 dB.
Site 9: <b><u>Manhattan Beach.</u></b> At beach area, at approximate location of the primary sand placement area.	Sunday June 2, 2024 10:50 a.m. to 11:05 a.m.	5-minute Leq's: 60, 59, 57	Constant noise from the ocean waves was 54-60 dB. People at the beach was 59-63 dB.
Site 10: <b><u>Manhattan Beach.</u></b> On The Strand, directly adjacent to homes along The Strand.	Sunday June 2, 2024 11:07 a.m. to 11:22 a.m.	5-minute Leq's: 60, 58, 63	Electric bikes playing music was 83 dB. People walking along the Strand was 60-75 dB.

Source: RCH Group 2024.



## 1.2.4 SENSITIVE RECEPTORS

Some land uses are considered more sensitive to ambient noise levels than others due to the amount of noise exposure, in terms of both duration and insulation from noise, and the types of activities typically involved. Residences, hospitals, schools, and nursing homes are generally more sensitive to noise than commercial and industrial land uses. This noise analysis shall consider noise-sensitive

land uses as residences, motels, hotels, schools, churches, libraries, and hospitals. The nearest noise-sensitive receptors to each beach site are as follows:

- Zuma Beach (City of Malibu): Residences are located as close as approximately 260 feet north of the nearest beach fill areas. Malibu Methodist Nursery School & Infant Center is located approximately 800 feet north from the nearest beach fill area. Malibu High School is located approximately 1,340 feet north of the nearest beach fill area.
- Will Rogers State Beach (City of Los Angeles): Residences are located as close as approximately 360 feet north of the nearest beach fill areas.
- Dockweiler State Beach (City of Los Angeles): There are no nearby noise-sensitive receptors (within 1,000 feet).
- Redondo Beach (City of Redondo): Residences are located as close as approximately 115 feet east of the nearest beach fill areas.
- Manhattan Beach (City of Manhattan Beach): Residences are located as close as approximately 100 feet east of the nearest beach fill areas.

### 1.3 THRESHOLDS OF SIGNIFICANCE

The significance of potential impacts was determined based on State CEQA Guidelines, Appendix G. Using Appendix G evaluation thresholds, the Project would be considered to have significant noise impacts if it results in:

- A. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
  - Construction activity would be considered significant if construction would occur outside of the adopted construction hours for each jurisdiction where work is proposed (City of Malibu, City of Los Angeles, City of Redondo, and City of Manhattan Beach).
- B. Generation of excessive groundborne vibration or groundborne noise levels; or
  - If Project construction vibration exceeds Caltrans structural damage thresholds for structures on adjacent properties.
- 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.

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## 1.4 IMPACT ANALYSIS

### 1.4.1 CONSISTENCY WITH APPLICABLE NOISE STANDARDS

#### Construction Noise Impacts

Project construction activities are opportunistic and may be conducted year-round. For each beach site, it is assumed approximately 5 months of construction (Monday thru Friday only) could occur in a given year. Construction would consist of sediment being delivered to each respective beach site by truck, dumped into a pile, and then transported to the placement site by earthmoving equipment (i.e., bulldozers, loaders, and scrapers). The noise levels generated by construction equipment would vary greatly depending upon factors such as the type and specific model of the equipment, the operation being performed, the condition of the equipment. **Table NOI-2, Construction Equipment Noise Levels**, provides the noise levels at 50, 100, 200 and 400 feet for expected construction equipment.

TABLE NOI-2 CONSTRUCTION EQUIPMENT NOISE LEVELS

Construction Equipment	L <sub>MAX</sub> at 50 feet	L <sub>MAX</sub> at 100 feet	L <sub>MAX</sub> at 200 feet	L <sub>MAX</sub> at 400 feet
Dozer	82	76	70	64
Dump Truck	76	70	64	58
Loader	79	73	67	61
Scraper	84	78	72	66
Sweeper	82	76	70	64

An attenuation rate of 6.0 per doubling distance was used to convert the FHWA noise levels at 50 feet to the noise levels at 100, 200, and 400 feet.

Source: Federal Highway Administration (FHWA) Roadway Construction Noise Model User's Guide, 2006.

#### City of Malibu Construction Noise Impacts

Construction occurring on Zuma Beach could occur as close as close as 260 feet away from the nearest residences. At this distance, construction equipment noise would attenuate to approximately 62-70 dB, L<sub>max</sub> when construction is occurring at beach fill areas that are closest to the nearest residences. However, the majority of construction at beach fill areas would occur at distances far greater than 260 feet away. Furthermore, as shown in **Table NOI-1, Existing Noise Levels**, traffic noise from Highway 1 is a major source of noise nearby at and near Zuma Beach (see Site 1, constant traffic noise was 70-95 dB, L<sub>max</sub>). This constant traffic noise from Highway 1 would mask any construction noise reaching the nearest residences and any minor increases in temporary construction noise would likely be imperceptible at the nearest residences.

Construction would comply with the adopted hours of construction in Malibu (7:00 a.m. to 7:00 p.m. on weekdays or 8:00 a.m. to 5:00 p.m. on Saturdays). Therefore, construction noise in the City of Malibu would result in a **less-than-significant impact**.

### ***City of Los Angeles Construction Noise Impacts***

Construction occurring in the City of Los Angeles includes work at Will Rogers State Beach and Dockweiler State Beach. As discussed above, there are no nearby noise-sensitive receptors to the work occurring in Dockweiler State Beach. However, there are several residences located as close as approximately 360 feet north of the nearest beach fill areas at Will Rogers State Beach. At this distance, construction equipment noise would attenuate to approximately 59-67 dB, L<sub>max</sub> when construction is occurring at beach fill areas that are closest to the nearest residences.

Per Section 112.05 of the City of Los Angeles Municipal Code, between the hours of 7:00 a.m. and 10:00 p.m., in any residential zone of the City or within 500 feet thereof, no person shall operate or cause to be operated any powered equipment or powered hand tool that produces a maximum noise level exceeding the following noise limits at a distance of 50 feet therefrom:

75dB(A) for construction, industrial, and agricultural machinery including crawler-tractors, dozers, rotary drills and augers, loaders, power shovels, cranes, derricks, motor graders, paving machines, off-highway trucks, ditchers, trenchers, compactors, scrapers, wagons, pavement breakers, compressors and pneumatic or other powered equipment;

Based on the current site plans, there are some beach fill areas at Will Rogers State beach that would be within 500 feet of a residential zone in the City. However, the majority of the beach fill areas would be located farther away than 500 feet of a residential zone. As shown in **Table NOI-2, Construction Equipment Noise Levels**, all of the proposed construction equipment would exceed 75 dB(A) at a distance of 50 feet<sup>5</sup>.

Per Section 112.05, these noise limitations shall not apply where compliance therewith is technically infeasible. Given the nature of the Project, the listed construction equipment is required for the restoration of the shoreline at Will Rogers State Beach and use of alternative equipment would not be feasible to perform the work required for shoreline restoration.

As discussed above, construction noise is estimated to attenuate to approximately 59-67 dB, L<sub>max</sub> at the nearest residences. As shown in **Table NOI-1, Existing Noise Levels**, traffic noise from Highway 1 is a major source of noise nearby at and nearby Will Rogers State Beach (see Site 3, constant traffic noise was 70-90 dB, L<sub>max</sub>). This existing traffic noise would mask any construction noise reaching the nearest residences and any minor increases in temporary construction noise would likely be imperceptible at the nearest residences. In addition to the traffic noise masking construction noise, the majority of nearby residential neighborhoods are located atop hills and the intervening topography would significantly attenuate construction noise reaching these residential areas. Further, construction would comply with the permitted hours of construction in Los Angeles (7:00 a.m. to 9:00 p.m. on weekdays and 8:00 a.m. to 6:00 p.m. on

<sup>5</sup> These reference noise levels are listed in the FHWA's Roadway Construction Noise Model User's Guide and present the typical noise levels that can be expected for the listed equipment in **Table NOI-2, Construction Equipment Noise Levels**. Currently, the specific model of each piece of equipment is unknown, however it is assumed that each piece of equipment would be properly maintained and in accordance with manufacturer's recommendations.

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Saturdays and National Holidays). Therefore, construction noise in the City of Los Angeles would result in a **less-than-significant impact**.

### ***City of Redondo Construction Noise Impacts***

Construction occurring on Redondo Beach could occur as close as close as 115 feet away from the nearest residences. At this distance, construction equipment noise would attenuate to approximately 69-77 dB, Lmax when construction is occurring at beach fill areas that are closest to the nearest residential neighborhoods. However, the majority of construction would occur at distances far greater than 115 feet from residences. Construction would result in a temporary increase above current ambient noise (see **Table NOI-1, Existing Noise Levels**, sites 7 and 8). Construction would comply with the adopted hours of construction in the City of Redondo (7:00 a.m. to 6:00 p.m. on weekdays or 9:00 a.m. to 5:00 p.m. on Saturdays). Therefore, construction noise in the City of Redondo would result in a **less-than-significant impact**.

### ***City of Manhattan Beach Construction Noise Impacts***

Construction occurring on Manhattan Beach could occur as close as close as 100 feet away from the nearest residences. At this distance, construction equipment noise would attenuate to approximately 70-78 dB, Lmax when construction is occurring at beach fill areas that are closest to the nearest residences. However, the majority of construction would occur at distances far greater than 100 feet. Construction would result in a temporary increase above current ambient noise (see **Table NOI-1, Existing Noise Levels**, sites 9 and 10). Construction would comply with the adopted hours of construction in the City of Manhattan Beach (7:30 a.m. to 6:00 p.m. on weekdays or 9:00 a.m. to 6:00 p.m. on Saturdays). Therefore, construction noise in the City of Manhattan Beach would result in a **less-than-significant impact**.

## **Operational Noise Impacts**

Once construction at each beach site is complete, there would be no increase in permanent operational noise. Operations would not create a change in traffic patterns or beach usage that would result in a permanent, perceptible increase in noise levels at the nearest noise-sensitive receptors. Therefore, the Project would result in a **less-than-significant impact**.

## **1.4.2 VIBRATION IMPACTS**

### **Construction Vibration Impacts**

Construction activities have the potential to result in varying degrees of temporary ground vibration, depending on the specific construction equipment used and operations involved. At the highest levels of vibration, damage to structures is primarily architectural and rarely results in any structural damage. A peak particle velocity (ppv) threshold of 0.5 inches per second or less is sufficient to avoid structural damage (Caltrans, 2013). Project construction would utilize the equipment listed in **Table NOI-2, Construction Equipment Noise Levels**. This equipment does not produce significant sources of vibration. Vibrational effects from typical construction activities are only a concern within 25 feet of existing structures (Caltrans, 2002). Construction

would not occur within 25 feet of an existing off-site structure. Therefore, the Project would result in a **less-than-significant impact**.

### 1.4.3 AIRCRAFT NOISE IMPACTS

As shown in **Table NOI-1**, *Existing Noise Levels*, aircraft noise from the Los Angeles International Airport (LAX) was the major source of noise at Dockweiler Beach (see Sites 5-6, aircraft noise ranged from 78-89 dB, Lmax). Although some beach sites are subject to existing aircraft noise within 2 miles of a given beach, implementation of the Project would not exacerbate existing airport noise that would expose people residing or working at the Project site to excessive noise levels. Therefore, the Project would result in a **less-than-significant impact**.

## 1.5 REFERENCES

- California Department of Transportation (Caltrans). 1998. *Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects*, October.
- California Department of Transportation (Caltrans). 2002. *Transportation Related Earthborne Vibrations*, February.
- California Department of Transportation (Caltrans). 2013. *Transportation and Construction Vibration Guidance Manual, Environmental Engineering, Hazardous Waste, Air, Noise, Paleontology Office*. September.
- California Natural Resources Agency. 2009. *Adopted Text of the CEQA Guidelines Amendments*. December 30.
- City of Los Angeles. 1999. *Noise Element of the Los Angeles City General Plan*. Available on-line, [https://planning.lacity.gov/odocument/b49a8631-19b2-4477-8c7f-08b48093cddd/Noise\\_Element.pdf](https://planning.lacity.gov/odocument/b49a8631-19b2-4477-8c7f-08b48093cddd/Noise_Element.pdf)
- City of Malibu. 1993. *City of Malibu General Plan, Chapter 6 Noise Element*. Available on-line, <https://ecode360.com/44603822>
- City of Manhattan Beach. 2003. *City of Manhattan Beach General Plan, Noise Element*. Available on-line, <https://www.manhattanbeach.gov/home/showpublisheddocument/90/635156169751700000>
- Federal Highway Administration (FHWA), 2006. *Roadway Construction Noise Model User's Guide*, 2006.

# Appendix A

Noise Measurement Location Figures 1-5



FIGURE 1: NOISE MEASUREMENT LOCATIONS – ZUMA BEACH (SITES 1 AND 2)

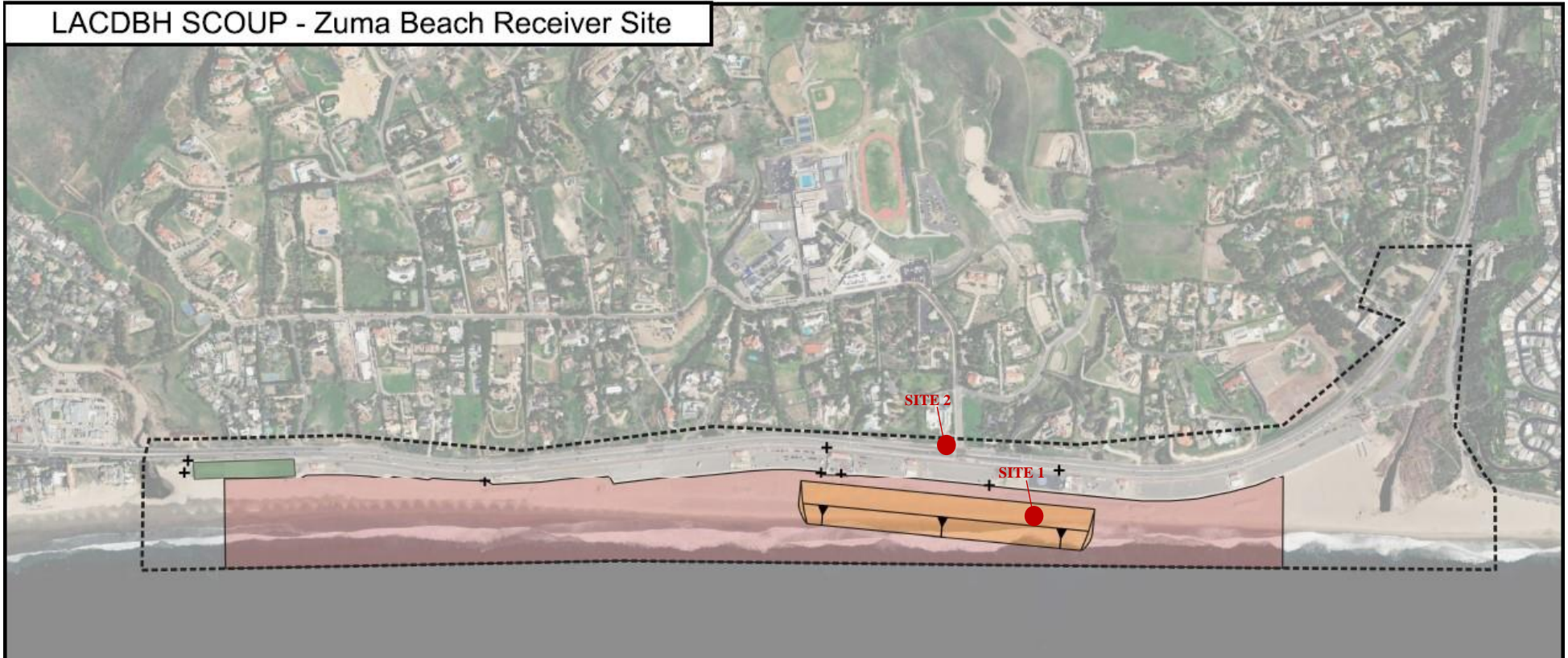




FIGURE 2: NOISE MEASUREMENT LOCATIONS – WILL ROGERS STATE BEACH (SITES 3 AND 4)

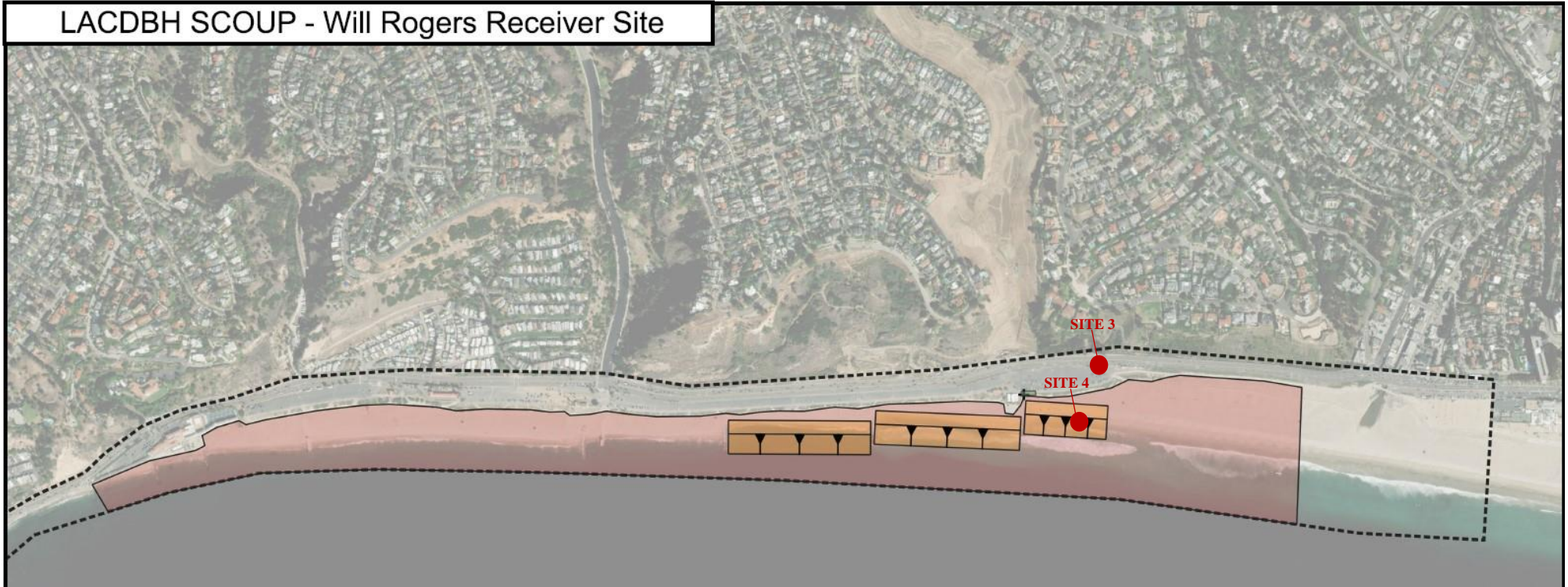


FIGURE 3: NOISE MEASUREMENT LOCATIONS – DOCKWEILER BEACH (SITES 5 AND 6)

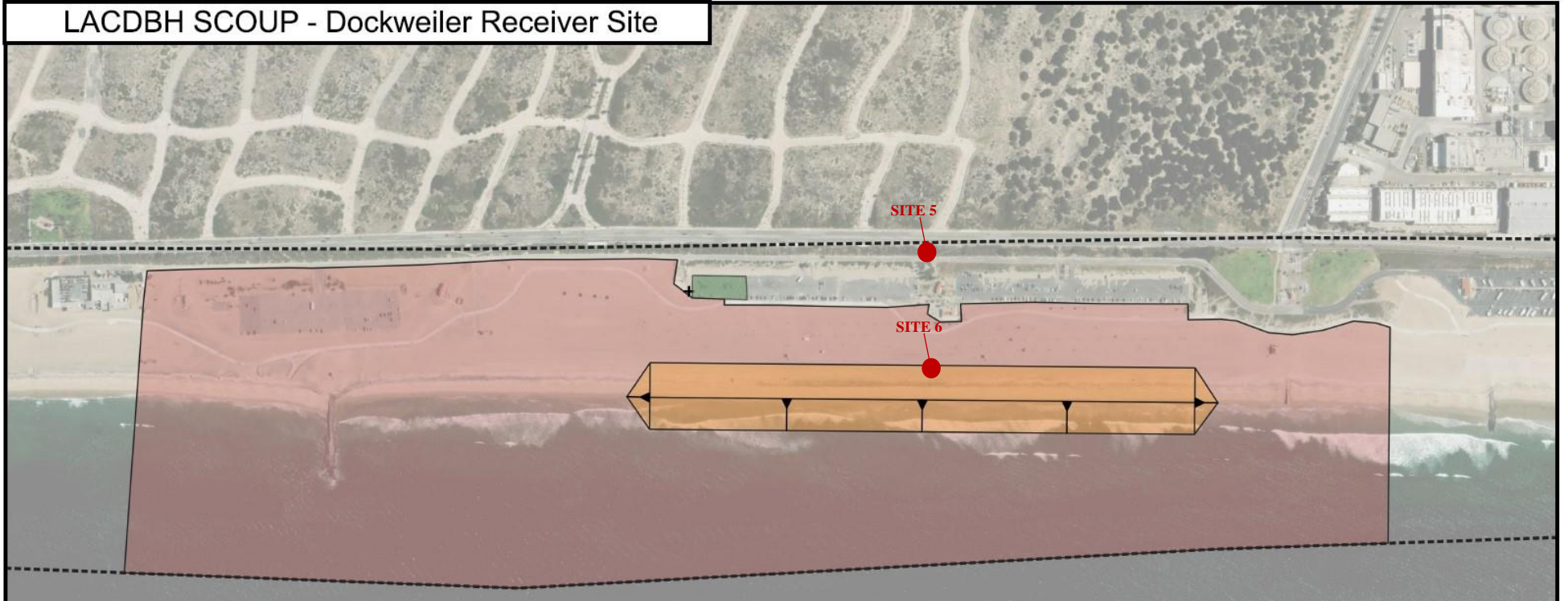


FIGURE 4: NOISE MEASUREMENT LOCATIONS – REDONDO BEACH (SITES 7 AND 8)



FIGURE 5: NOISE MEASUREMENT LOCATIONS – MANHATTAN BEACH (SITES 9 AND 10)

