

3.10 NOISE

3.10.1 Introduction

This section describes the general characteristics of noise, the requirements of applicable regulations related to noise control, and existing noise conditions at the Proposed Action sites. The potential for project-related construction operations to result in significant noise impacts to sensitive receptors is evaluated, along with an assessment of possible noise-related impacts that may result from the foreseeable use of existing and proposed land areas located at and adjacent to the Proposed Action sites.

3.10.2 Environmental Setting

3.10.2.1 Characteristics of Noise

Noise is generally considered to be unwanted sound that disrupts normal activities or that diminishes the quality of the environment. Human responses to noise are somewhat subjective and can vary greatly from person to person. Factors that can influence an individual's response to noise include loudness, frequency (high or low pitch noise), the time the noise occurs, the amount of background noise present, and the activity affected by the noise source.

The decibel (dB) is the standard unit for measuring noise levels. Decibels represent a logarithmic ratio of the ambient sound pressure level compared to the faintest noise detectable by the human ear. The unit of measurement is generally adjusted to the A scale (dBA) to better approximate the human ear's range of sensitivity to sounds of different frequencies.

The smallest change in noise level that a human ear can perceive is about 3 dBA, while increases of 5 dBA or more are usually noticeable. A doubling of sound energy will result in an increase of 3 dBA. For the human ear, a sound must be about 10 dBA greater than a reference sound to be judged by most people as being twice as loud. Normal conversation is typically between 44 and 65 dBA when the people speaking are three to six feet apart. Noise levels in a quiet rural area at night are typically between 32 and 35 dBA. Quiet urban nighttime noise levels range from 40 to 50 dBA. Noise levels during the day in a noisy urban area may be as high as 70 to 80 dBA. Noise levels higher than 85 dBA over continuous periods (i.e., exceeding eight hours per day) can result in hearing loss, and noise above 110 dBA becomes intolerable and then painful. Constant noises tend to be less noticeable than irregular or periodic noises. Table 3.10-1 depicts sound levels for common noise sources and compares their relative loudness to an 80 dBA reference noise.

Table 3.10-1 Sound Levels and Relative Loudness of Typical Noises in Indoor and Outdoor Environments

Activity (Distance from Noise Source)	Sound Level (dBA)	Subjective Impression	Relative Loudness
Jet aircraft takeoff from carrier (50 feet)	140	Threshold of pain	64 times as loud
50-hp siren (100 feet)	130		32 times as loud
Jet takeoff (200 feet)	120	Uncomfortably loud	16 times as loud
Riveting machine	110		8 times as loud
Jet takeoff (2,000 feet)	100	Very loud	4 times as loud
Heavy truck or motorcycle (25 feet)	90		2 times as loud
Garbage disposal or food blender (50 feet)	80	Moderately loud	Reference loudness
Vacuum cleaner (10 feet) or passenger car at 65 mph (25 feet)	70		1/2 as loud
Large store air-conditioning unit (20 feet)	60		1/4 as loud
Light auto traffic (100 feet)	50	Quiet	1/8 as loud
Bedroom/living room or bird calls	40		1/16 as loud
Library, soft whisper (15 feet)	30	Very quiet	
Broadcasting studio	20		
	10	Just audible	
	0	Threshold of hearing	

Source: U.S. Army Corps of Engineers, 2000

Several methods have been devised to express noise levels. One method is called the “Leq” (equivalent sound level). The Leq is the average acoustic energy content of a noise over a given period of time. The Leq of a time period with varying noise levels and that of a steady noise are the same if they deliver the same acoustic energy to the ear during the period of exposure. Another noise measurement is the “day-night average sound level” (Ldn). Ldn is the time average of noise levels for a 24-hour period with a 10 dB addition to noises occurring between 10:00 PM and 7:00 AM. This adjustment accounts for the increased sensitivity of people to nighttime noise. The “Community Noise Equivalent Level” (CNEL) is similar to the Ldn, except the CNEL also adds 5 dB to evening noise levels (7:00 PM to 10:00 PM). Ldn and CNEL noise measurement values are generally similar.

3.10.2.2 Existing Noise Environment

Existing noise levels within the POLA are a result of a wide variety of sources including: ship engines, operation of bulk loading facilities, shipping container handling equipment, truck traffic and train operations. Previously approved channel dredging operations and construction projects also contribute to existing noise levels within the Port. Noise from ship whistles and train horns occurs on an intermittent basis and can be heard above the low steady-state noise that emanates from the Port as a result of regular Port-related activities. Other noise sources that contribute to noise levels in the Port area include vehicle traffic on local roads and freeways, and aircraft operations.

Ambient noise levels within the Port will vary depending on the site-specific location, the type of port-related operations that occur in and around that area, and the intensity (i.e., the type and number of pieces of equipment used, the duration of activities, proximity to other noise sources, etc.) of Port-related activities. Existing ambient noise level data for the Proposed Action areas was used when such data was available and is presented as appropriate. In the absence of existing ambient noise condition data, noise levels within the Port were presumed to be 70 dBA during the day and 70 dBA at night, consistent with the specifications of the City of Los Angeles' *L.A. CEQA Thresholds Guide* (Exhibit I.1-3, Presumed Ambient Noise Levels), which indicates that daytime and nighttime noise (dBA) levels in Light Industrial (M-2) and Heavy Industrial (M-3) areas may be presumed to be 70 dBA.

3.10.2.3 Noise Sensitive Uses

General Characteristics. The *L.A. CEQA Thresholds Guide* (City of Los Angeles, 2006) indicates that noise sensitive uses include “residence, transient lodging, schools, libraries, churches, hospitals, nursing homes, auditoriums, concert halls, amphitheaters, playgrounds, and parks.” For this analysis, fire stations were also considered to be a noise sensitive use because of the 24-hour occupancy of the facilities by Fire Department personnel.

The POLA is served by multiple City of Los Angeles fire stations that would be located in the vicinity of Proposed Action disposal sites, including:

- Station No. 49, 400 Yacht Street, Berth 194
- Station No. 110, 2945 Miner Street, Berth 44-A, Fort McArthur area
- Station No. 111, 945 South Seaside Avenue, Berth 260, Fish Harbor

The City of Los Angeles Planning Department indicates that in 2004 within the POLA Community Plan Area, there was an estimated resident population of approximately 703¹. It is presumed that most of this population is comprised of people who live on a boat (liveaboards). Marina areas that would facilitate most of the liveboard population are located along the West Channel near the City of San Pedro, and near the East Basin and Cerritos Channel in the northern portion of the Port. Additional liveaboards are located at the Al Larson Marina, northeast of the Berths 243-245 disposal site. The Planning Department also indicates that within the Port, there is a population of approximately 1,192 in “group quarters,” which would include the population of the Federal Correctional Institution located at Reservation Point at the southern end of Terminal Island.

¹ Los Angeles Department of City Planning, Local Area Profile, <http://cityplanning.lacity.org>.

The City of San Pedro is located along the Port's western boundary. Numerous sensitive noise receptors are located in the City near the Port, including residences, transient lodging, schools, libraries, churches, hospitals, and parks. The Proposed Action area located closest to the City of San Pedro is the Berths 243-245 area, which is more than one-half mile from the city limits. Other Proposed Action areas are located approximately ¾-mile to more than two miles from the San Pedro city limits.

The City of Wilmington is located along the Port's northern boundary. Residential neighborhoods within the City of Wilmington are located approximately 1,500 feet north of the Northwest Slip area within the POLA. Other Proposed Action areas are located approximately three-quarters to more than four miles from the Wilmington city limits.

3.10.2.4 Project-Specific Characteristics

Noise sensitive uses located in the vicinity of the Proposed Action areas are described below. The location of the noise receptors that have the potential to be affected by the Proposed Action are depicted on Figure 3.10-1 (Sensitive Receptor Locations).

Berths 243-245. Fire Station No. 111 is the sensitive receptor located closest to the Berths 243-245 project area. The station is located a minimum distance of 500 feet and an average distance of approximately 800 feet east of this project site. Other noise sources adjacent to Fire Station No. 111 include ship operations in the Main Channel and Fish Harbor areas. Recent noise measurements determined that the CNEL noise level in the vicinity of Fire Station No. 111 is 63 dBA CNEL (Southwest Marine Building Demolition Project EIR, 2006). Noise measurements included in the Southwest Marine Building Demolition EIR are considered to be representative of ambient conditions that existed in the Berths 243-245 area during 2004 (Proposed Action baseline year) because uses at and surrounding the vacant site were the same in 2006 as in 2004. Any changes in noise source characteristics that may have occurred at the POLA between when the noise measurements for the building demolition project were taken and 2004, such as an increase or decrease in vessel or vehicle traffic, would be relatively small. As a result, any change in ambient noise conditions that may have occurred would be extremely small and not perceptible to the human ear. For example, an increase or decrease in noise levels of three dBA is generally regarded as the amount of change required before the difference in noise levels is perceptible to the human ear. However, to achieve a three dBA increase in noise conditions, the amount of vessel and vehicle traffic (the major noise sources at the POLA) in the vicinity of the Berths 243-243 project area would have had to have doubled between the time that the Southwest Marine Building Demolition EIR noise measurements were taken and 2004.

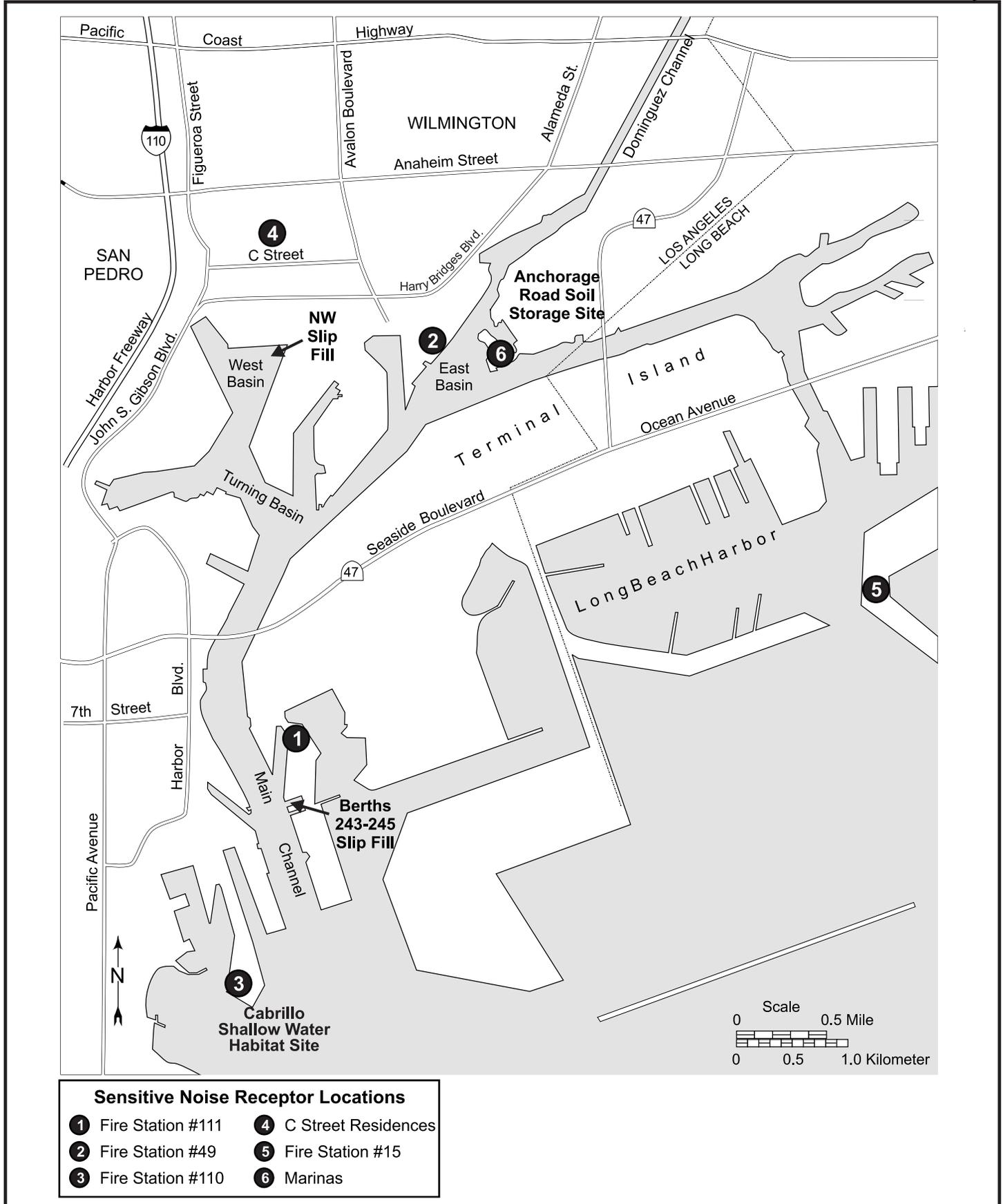


Figure 3.10-1
Sensitive Noise Receptor Locations

Therefore, incremental changes in traffic or vessel traffic characteristics that may have occurred would not result in a substantial change to ambient noise conditions.

Liveboards at the Al Larson Marina are located an average distance of approximately 1,300 feet northeast of the Berths 243-245 project area. Recent noise measurements determined that the CNEL noise level in the vicinity of the marina is 76 dBA CNEL (Southwest Marine Building Demolition Project EIR, 2006). As described for the ambient noise condition measurements at Fire Station 111, the reported noise conditions for the Al Larson Marina area are considered to be representative of ambient conditions that existed in 2004.

Northwest Slip. Residences along “C” Street in the City of Wilmington are the sensitive noise receptors located closest to this proposed disposal site. The residences closest to the project site are approximately 1,500 feet to the north. Other major noise sources adjacent to the “C” Street residences include traffic along Harry Bridges Boulevard and Figueroa Street, both of which are designated truck routes; and traffic along Interstate 10. Based on noise measurements conducted over a 24-hour period, the Ldn (similar to CNEL) along the western end of “C” street was 71 dBA for the Berths 136-147 Terminal EIS/EIR (USACE and LAHD, 2007). Short-term noise measurements in the “C” Street neighborhood near Hawaiian Avenue resulted in a Leq of 65 dBA. Noise measurements for the Berths 136-147 Terminal Project were taken in 2002. As discussed above changes in vehicle or vessel traffic that may have occurred between 2002 and 2004 would result in very minor changes in ambient noise conditions. Therefore, reported ambient noise conditions are considered to be representative of conditions that existed in the Northwest Slip project area in 2004.

CSWH Expansion Area. Fire Station No. 110 is the sensitive receptor located closest to the CSWH Expansion Area. The station is located a minimum distance of approximately 1,200 feet north of this project area. Other noise sources adjacent to Fire Station 110 include railroad tracks located approximately 500 feet to the east, and ship operations in the West and East Channel areas. Consistent with the specifications of the City of Los Angeles’ *L.A. CEQA Thresholds Guide* (Exhibit I.1-3, Presumed Ambient Noise Levels), which indicates that daytime and nighttime noise (dBA) levels in Light Industrial (M-2) and Heavy Industrial (M-3) areas may be presumed to be 70 dBA, it is presumed that the ambient noise level in the vicinity of Fire Station 110 is 70 dBA.

~~**Eelgrass Habitat Area.** The proposed Eelgrass Habitat Area would be located along the eastern end of the CSWH Expansion Area. Fire Station No. 110 is the sensitive receptor located closest to the Eelgrass Habitat Area project site.~~

Anchorage Road Soil Storage Site (ARSSS). Boat marinas with liveaboard residents would be the sensitive receptors located closest to the ARSSS. Boat marinas in the Cerritos Channel would be a minimum distance of approximately 350 feet south of the disposal area. Offloading of sediment from barges to trucks would occur at a minimum of 500 feet north of the closest marina area, and trucks traveling on Shore Road to haul dirt to the disposal area would be a minimum of approximately 150 feet east of the nearest potential sensitive receptor. Other noise sources in the vicinity of the Cerritos Channel marinas include railroad tracks, Highway 47 and the Commodore Schuyler F. Heim Bridge to the east. Noise measurements conducted for the Berth 206-209 Interim Container Terminal Reuse Project EIR (2005) determined that the ambient noise level (Leq) at the liveaboard docks located south of the project site was 68 dBA. Noise measurements for the Berth 206-209 Interim Container Terminal Reuse Project were taken in 2002. As discussed above, any changes in vehicle or vessel traffic that may have occurred between 2002 and 2004 would result in very minor changes in ambient noise conditions. Therefore, reported ambient noise conditions are considered to be representative of conditions that existed in the ARSSS area in 2004.

LA-2. LA-2 is an offshore disposal site located approximately 5.8 miles southwest of the POLA. No sensitive noise receptors are located near the ocean disposal site.

LA-3. LA-3 is an offshore disposal site located approximately five miles southwest of the entrance to Newport Harbor. No sensitive noise receptors are located near the ocean disposal site.

3.10.3 Applicable Regulations

Noise regulations applicable to activities in the Port are contained in the City of Los Angeles Municipal Code. Section 41.40 of the code establishes when construction work cannot be performed, and indicates that:

- (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, driven 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 jobsite delivering of construction materials in such areas shall be prohibited during the hours herein specified. Any person who knowingly and willfully violates the foregoing provisions

shall be deemed guilty of a misdemeanor punishable as elsewhere provided in this code.”

The code section then provides certain provisions for exceptions and exemptions.

Chapter 11 of the City of Los Angeles Municipal Code sets forth noise regulations. The applicable section regarding construction noise is Section 112.05, which establishes maximum noise levels for powered equipment or powered hand tools. This section states:

“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 from (a) 77 dBA for construction, industrial and agricultural machinery including crawler tractors, dozers, rotary drills and augers, loaders, power trenchers, compactors, scrapers, wagons, pavement breakers, depressors, and pneumatic or other powered equipment; (b) 75 dBA for powered equipment of 20 horsepower or less intended for infrequent use in residential areas including chain saws, log chippers, and powered hand tools; and (c) 65 dBA for powered equipment intended for repetitive use in residential areas including lawn mowers, backpack mowers, 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 and techniques during the operation of the equipment.”

The City has developed thresholds of significance for project operation noise. These standards are described in section 3.10.4.2 of this SEIS/SEIR.

3.10.4 Methodology

This assessment of potential noise impacts includes an evaluation of short-term construction-related impacts, and long-term impacts that have the potential to result from the use of existing

land area and new upland areas that would be created by the Proposed Action. Potential construction-related impacts were evaluated by identifying project-related construction activities required to develop each of the proposed sediment disposal sites, including planned construction operations, major pieces of equipment that would be used, and the duration of equipment use. Noise levels in the vicinity of each proposed and alternative project site were then estimated based on published noise level values for the major pieces of equipment that would be used on the project site. The noise sensitive receptor located closest to the project site was identified and existing noise conditions at the receptor location were estimated using published sources. project-related construction noise at the sensitive receptors was estimated using standard distance and noise attenuation relationships. Potential long-term operation noise impacts were evaluated in a similar manner, but considered possible noise sources that may be associated with future operations conducted at the proposed sediment disposal sites.

The CEQA and NEPA Baseline for the Proposed Action comprises a total of approximately ~~44563~~ acres of open water areas at Berths 243-245, the Northwest Slip, and the CSWH; approximately 1,330 acres of open water at ocean disposal sites LA-2, as well as and LA-3; and approximately 31 acres of land area at the ARSSS, which is currently used for soil storage.

3.10.5 Thresholds of Significance

The *L.A. CEQA Thresholds Guide* (City of Los Angeles, 2006) provides specific thresholds of significance to evaluate potential noise impacts resulting from both construction and operation of a proposed project. The following thresholds are applicable to the Proposed Action. A project would normally result in a significant noise impact if it would result in one or more of the following:

Construction Impacts

- NOI-1** Construction activities lasting more than 1 day would exceed existing ambient exterior noise levels by 10 dBA or more at a noise-sensitive receiver; or if construction activities lasting more than 10 days in a 3-month period would exceed existing ambient exterior noise levels by 5 dBA or more at a noise-sensitive use.
- NOI-2** Construction activities would exceed the ambient noise level by 5 dBA at a noise sensitive use between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. on Saturday, or at any time on Sunday.

Operation Impacts

NOI-3 The project causes the ambient noise level measured at the property line of affected uses to increase by 3 dBA in CNEL to or within the “normally unacceptable” or “clearly unacceptable” category (see Table 3.10-2) or any 5 dBA or greater noise increase.

3.10.6 Impact Analysis and Mitigation Measures

Construction activities and sediment disposal operations that would occur at each of the proposed sediment disposal sites would vary in terms of duration and equipment use. In general, however, each project component would have similar short-term construction and operation characteristics. General construction and operation requirements for the proposed sediment disposal sites are described below.

Table 3.10-2 Land Use Noise Compatibility Guidelines

Land Use	Community Noise Exposure CNEL, dBA			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Single Family, Duplex, Mobile Homes	50-60	55-70	70-75	Above 70
Multi-Family Homes	50-65	60-70	70-75	Above 70
Schools, Libraries, Churches, Hospitals, Nursing Homes	50-70	60-70	70-80	Above 80
Playgrounds, Neighborhood Parks	50-70	---	67-75	Above 72

Normally Acceptable: Specified land use is satisfactory, based on the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditions, will normally suffice.

Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Clearly Unacceptable: New construction or development should generally not be undertaken.

Source: City of Los Angeles, 1998

If facilities are presently located at the project site, such as the docks located at the Berths 243-245 site, those facilities would be demolished. Equipment that would be used to demolish the existing structures would include a clamshell dredge, backhoes, haul trucks and a tugboat.

Demolition-related activities would generally occur 12 hours per day, between 7:00 am and 7:00 pm.

With the exception of the ARSSS and the LA-2 and LA-3 disposal sites, each sediment disposal site would be provided with a rock dike to stabilize the fill material. Rocks used to construct the dikes would be transported by barge from Santa Catalina Island and placed at the site using a barge-mounted crane. Dike construction activities would generally occur 12 hours per day. Prior to the construction of a rock dike at the Berths 243-245, Northwest Slip and CSWH sites, a dike

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trench would be excavated. This operation would require the use of a clamshell dredge and tugboat. Dredging operations to construct dike trenches would occur 24 hours per day.

Sediment from previously approved channel deepening operations would be delivered to the proposed and alternative disposal sites either by pumping the sediment through a pipeline, or by placing the sediment into barges and using tugboats to move the barges to the project sites. For the ARSSS, sediment would be unloaded from barges onto trucks, then transported to the storage site. For sites that would result in the creation of new upland area a bulldozer would be used for final grading of the landfill. Sediment fill operations at the Proposed Action sites would generally occur eight hours per day. Typical noise levels produced by equipment that would be used to construct and operate the proposed sediment disposal sites are summarized on Table 3.10-3.

Table 3.10-3 Construction Equipment Noise

Equipment	Noise Level at 50 Feet From Source (dBA)
Diesel-Powered Clamshell Dredge	85 (1)
Tugboat	87 (1)
Support Boat	87 (1)
Barge	87 (1)
Crane (Barge-Mounted)	87 (2)
Backhoe	84 (3)
Bulldozer	88 (3)
Haul Truck	82 (4)

- (1) Source: U.S. Army Corps of Engineers, 2000
- (2) Source: L.A. CEQA Thresholds Guide, 2006. Noise analysis assumed that crane-related noise would be in the middle of the noise range (86-89 dBA) provided by the Threshold Guide for derrick cranes.
- (3) Source: L.A. CEQA Thresholds Guide, 2006. Noise analysis assumed that noise levels would be in the middle of the noise range for backhoes (73-95 dBA) and tractors (77-98 dBA).
- (4) Source: L.A. CEQA Thresholds Guide, 2006. Noise analysis assumed that on-highway truck noise would be at the low end of the noise range for trucks (82-95 dBA).

3.10.6.1 Alternative 1: Port Development and Environmental Enhancement

Alternative 1, Port Development and Environmental Enhancement, would consist of disposing dredged material at the following disposal sites: Berths 243-245; Northwest Slip; CSWH Expansion Area; ~~Eelgrass Habitat Area~~; and LA-2.

A Confined Disposal Facility (CDF) would be created at the Berths 243-245 disposal site and would be covered with clean dredge material placed as surcharge to an elevation of approximately +30 feet MLLW, which would remain in place until a future geotechnical investigation/monitoring determines the fill has been consolidated. In the future if the Port decides to remove the surcharge material, an appropriate CEQA document would be prepared to analyze potential impacts of surcharge removal. Potential environmental impacts of future

development of the new 5-acre land area at the Northwest Slip have been addressed in the Berth 136-147 Container Terminal Project Final EIS/EIR, which is summarized in Section 3.14.

Impact NOI-1: Alternative 1 would result in construction activities that exceed existing ambient exterior noise levels by 5 dBA or more at a noise-sensitive use.

Project-related construction activities at each proposed sediment disposal site would occur over a period of more than 10 days. Therefore, the 5 dBA exterior noise significance threshold has been used to evaluate the potential for Alternative 1 to result in significant noise impacts.

Berths 243-245. Development of the Berths 243-245 disposal site would require the demolition of existing boat docks located at the site. Proposed demolition activities would occur over a period of approximately ~~77~~89 days. The construction of a dike and dike trench would occur over a period of approximately ~~144~~160 days, and the placement of sediment would occur over a ~~52~~60-day period. In total, proposed site construction activities would occur for approximately ~~273~~309 days. Table 3.10-4 describes the duration of use of noise-generating equipment use and duration for at the Berths 243-245 disposal site. project component is provided on Table 3.10-4.

Table 3.10-4 Berths 243-245 Construction Noise Impacts

Construction Activity (Operation Days)	Equipment Use (Hours per Day)	Distance to Nearest Sensitive Receptor (1) (Feet)	Construction Noise at Receptor Site (dBA Leq) (2)	Ambient Condition (dBA CNEL)	Increase over Existing Noise Condition (1) (dBA)	Significant Impact?
Demolition (77 <u>89</u>)	1 Clamshell Dredge (12) 3 Backhoes/Loaders (12) 2 Haul trucks on-site simultaneously (5) 1 Tugboat (12)	500	73	63	10	Yes
Dike Trench (14 <u>15</u>)	1 Clamshell Dredge (24) 1 Tugboat (4)	800	62	63	None	No
Dike Construction 130 (<u>145</u>)	1 Barge-Crane (12) 3 Tugboats (1 boat 12) (2 boats 2)	800	67	63	4	No
Sediment Placement (52 <u>60</u>)	1 Tugboat (8) 1 Bulldozer (8) 2 Support Boats (5)	500	72	63	9	Yes

- (1) The sensitive noise receptor closest to the project site is Fire Station No. 111.
- (2) Represents noise generated by construction activities.

The sensitive noise receptor located closest to the Berths 243-245 disposal site is Fire Station No. 111, which is located approximately 500 to 800 feet east of the project area. As depicted on Table 3.10-4, noise levels at the fire station resulting from proposed construction and sediment disposal operations at the Berths 243-245 disposal site would range between 62 and 73 dBA Leq. The construction operations resulting in the highest noise levels at the fire station would be the demolition of existing boat docks (73 dBA Leq) and during the disposal of dredged sediment (72 dBA Leq). These operations would result in the highest noise levels at the fire station because

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they could occur at a minimum distance of 500 feet, while other project-related activities would occur at a distance of at least 800 feet from the fire station. Ambient noise levels at Fire Station No. 111 were recently measured and determined to be 63 dBA CNEL (LAHD, 2006). The short-term increase in ambient noise levels resulting from proposed demolition and sediment disposal operations would range between nine (9) and 10 dBA. This increase in ambient noise conditions would exceed the five dBA significance threshold and would result in a significant impact.

Other sensitive receptors in the vicinity of the Berths 243-245 disposal site are liveboards at the Al Larson Marina, which is an average distance of approximately 1,300 feet northeast of the project site. Ambient noise levels at the marina were recently measured and determined to be 76 dBA CNEL (LAHD, 2006). Construction activities at Berths 243-245 would result in peak noise levels of approximately 63-64 dBA at the marina. Therefore, project-related noise would not be audible at the marina due to the existing high ambient noise conditions, and the construction-related noise would not increase existing ambient noise conditions at the Al Larson Marina by 5 dBA or more and would not result in a significant impact at this location.

Northwest Slip. Demolition activities at the Northwest Slip project site would take approximately ~~354~~1 workdays to complete. The construction of a dike and dike trench at the Northwest Slip would occur over a period of approximately ~~171~~194 days, and the placement of dredged sediment would occur over a ~~19~~12-day period. In total, proposed site construction activities would occur on approximately ~~225~~247 days. Noise-generating equipment use and duration for the Northwest Slip disposal site project component is provided on Table 3.10-5.

Table 3.10-5 Northwest Slip Construction Noise Impacts

Construction Activity (Operation Days)	Equipment Use (Hours per Day)	Distance to Nearest Sensitive Receptor ⁽¹⁾ (feet)	Construction Noise at Receptor Site (dBA Leq) (2)	Ambient Condition (dBA Ldn)	Increase over Existing Noise Condition ⁽¹⁾ (dBA)	Significant Impact?
Demolition (35 <u>41</u>)	1 Clamshell Dredge (12) 3 Backhoes/Loaders (12) 2 Haul trucks on-site simultaneously (10) 1 Tugboat (12)	1,500	64	71	none	No
Dike Trench (8)	1 Clamshell Dredge (24) 1 Tugboat (4)	1,500	57	71	none	No
Dike Construction (44 <u>186</u>)	1 Barge-Crane (12) 3 Tugboats (1 boat 12) (2 boats 3)	1,500	62	71	none	No
Sediment Placement (17 <u>12</u>)	1 Tugboat (8) 1 Bulldozer (8) 2 Support Boats (5)	1,500	63	71	none	No

- (1) The sensitive noise receptors closest to the project site are residences along "C" Street in the City of Wilmington.
- (2) Represents noise generated by construction activities.

The sensitive noise receptors located closest to the Northwest Slip project area are residences along “C” Street in the City of Wilmington, a minimum distance of approximately 1,500 feet north of the project area. As depicted on Table 3.10-5, noise levels in the residential neighborhood resulting from proposed construction and sediment disposal operations at the Northwest Slip project site would range between 57 and 64 dBA Leq, which are below the existing 71 dBA Ldn ambient noise levels in the neighborhood. Construction-related noise levels would also not exceed the short-term 65 dBA Leq noise levels that were measured in the “C” Street neighborhood and would not result in a significant impact.

CSWH Expansion Area. Development of the CSWH Expansion Area would not require any demolition activities. A dike trench would be excavated and construction of a rock dike would occur over a period of approximately ~~105247~~ days. The placement of dredged sediment would occur over a span of approximately ~~93171~~ days. In total, proposed site construction activities would occur over a period of approximately ~~198418~~ days. Noise-generating equipment that would be used during each construction phase of the CSWH Expansion Area is identified on Table 3.10-6, along with an estimate of how many days and how many hours per day each piece of equipment would be used. The sensitive noise receptor located closest to the CSWH Expansion Area is Fire Station No. 110, which is located approximately 1,200 feet north of the project site. As depicted on Table 3.10-6, noise levels at the fire station resulting from proposed construction and sediment disposal operations at the CSWH Expansion Area would vary between 62 and 63 dBA Leq. These noise levels would be substantially below the existing ambient noise level of 70 dBA at the fire station and would not exceed an adopted significance threshold for construction noise.

Table 3.10-6 CSWH Expansion Area Construction Noise Impacts

Construction Activity (Operation Days)	Equipment Use (Hours per Day)	Distance to Nearest Sensitive Receptor (1) (Feet)	Ambient Condition (dBA)	Construction Noise at Receptor (dBA Leq)	Increase over Existing Noise Conditions (1) (dBA)	Significant Impact?
Dike Trench (67)	1 Clamshell Dredge (24) 1 Tugboat (4)	1,200	70	62	none	No
Dike Construction (105284)	1 Barge-Crane (12) 3 Tugboats (1 boat 12) (2 boats 2)	1,200	70	63	none	No
Sediment Placement (93171)	2 Support boats (5) 1 Tugboat (8)	1,200	70	62	none	No

(1) The sensitive noise receptor closest to the project site is Fire Station 110.

~~**Eelgrass Habitat Area.** Development of the Eelgrass Habitat Area would not require any demolition activities, and the construction of a rock dike would occur over a period of~~

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approximately 57 days. The placement of dredged sediment would occur over a span of approximately 78 days. In total, proposed site construction activities at the Eelgrass Habitat Area would occur over a period of approximately 135 days. Noise-generating equipment that would be used during each construction phase of the project site is identified on Table 3.10-7, along with an estimate of how many days and how many hours per day each piece of equipment would be used.

The sensitive noise receptor located closest to the Eelgrass Habitat Area is Fire Station No. 110, which is located approximately 1,200 feet north of the project site. As depicted on Table 3.10-7, noise levels at the fire station resulting from proposed construction and sediment disposal operations at the Eelgrass Habitat Area would vary between 62 and 63 dBA Leq. These noise levels would be substantially below the existing ambient noise level of 70 dBA at the fire station and would not exceed an adopted significance threshold for construction noise.

Should construction activities occur simultaneously at both the Eelgrass Habitat Area and CSWH Expansion Area, the resulting “worst case” construction noise level at Fire Station 110 would be approximately 66 dBA. This resulting noise level would still be below the existing ambient noise level of 70 dBA at the fire station and would not exceed an adopted significance threshold for construction noise.

Table 3.10-7 Eelgrass Habitat Area Construction Noise Impacts

Construction Activity (Operation Days)	Equipment Use (Hours per Day)	Distance to Nearest Sensitive Receptor (1) (Feet)	Ambient Condition (dBA)	Construction Noise at Receptor (dBA Leq)	Increase over Existing Noise Conditions (1) (dBA)	Significant Impact?
Dike Construction (57)	1 Barge Crane (12) 3 Tugboats (1 boat 12) ————— (2 boats 2)	1,200	70	63	none	No
Sediment Placement (78)	2 Support boats (5) 1 Tugboat (8)	1,200	70	62	none	No

(1) — The sensitive noise receptor closest to the project site is Fire Station 110.

LA-2. The LA-2 is an offshore disposal site, and no construction-related operations would be required for its use under Alternative 1. ~~Project-related vessel traffic within the Port~~ The two barge trips per day that required to transport 4,000 cubic yards 0.804 mcy of sediment to the offshore site would be minimal compared to existing Port-related vessel traffic and would not substantially increase existing ambient noise levels within the port. Therefore, the use of this site would not exceed an adopted significance threshold for construction noise.

Impact Determination

Short-term demolition and sediment disposal operations at the Berths 243-245 disposal site would result in noise levels of approximately 73 and 72 dBA at Fire Station 111, respectively. These short-term noise levels would exceed the existing ambient noise condition at the fire station of 63 dBA by at least 9 dBA, which is above the threshold increase of five dBA, and would therefore exceed an adopted significance threshold for construction noise impacts. Therefore, the demolition and sediment disposal operations at the Berths 243-245 project site would result in a significant noise impact at Fire Station No. 111. Short-term noise generated by construction activities at the Berths 243-245 disposal site would result in less than significant impacts to liveaboards located at the Al Larson Marina. Noise levels resulting from proposed disposal operations at the Northwest Slip, CSWH Expansion Area, ~~Eelgrass Habitat Area~~ and LA-2 would result in less than significant impacts at the closest sensitive receptor locations.

Mitigation Measures

MM NOI-1: Temporary Construction Noise Control. The Port shall require that the following noise control measures be provided prior to start of proposed demolition and sediment disposal operations at the Berths 243-245 disposal site, and that the measures be implemented throughout proposed demolition and sediment disposal operations.

- 1a. A temporary solid fence or similar barrier at least eight feet in height shall be provided between the construction site and Fire Station No. 111 to minimize short-term, construction-related noise impacts. The noise barrier shall be constructed of one half inch-thick plywood (or other material of comparable thickness) and there shall be no gaps in the barrier. The barrier shall be placed as close to the construction site as possible.
- 1b. Construction material, equipment and vehicle staging areas shall be located as far from Fire Station No. 111 as practicable.
- 1c. Portable or stationary equipment, such as but not limited to generators, air compressors and saws, shall be located as far from Fire Station No. 111 as practicable.
- 1d. All construction equipment shall be maintained with engine covers, shields, mufflers and screening as provided by the manufacturer.

Residual Impacts. Mitigation measure NOI-1 (1a) requires a temporary solid fence or other barrier to be located between the Berths 243-245 disposal site and Fire Station No. 111. Such a barrier would reduce construction-related noise at the first floor of the fire station building by at least five dBA; however, noise reduction at the second floor of the fire station provided by the sound barrier may be somewhat less effective because “line-of-sight” between the construction

site and the fire station building may be retained. A taller noise barrier is not required to reduce impacts to a less than significant level because the second floor of the fire station building is used for sleeping quarters, and the demolition and sediment placement operations that would result in the significant noise impact would only occur during daytime hours (7:00 am to 7:00 pm). In addition, implementation of noise control measures NOI-1 (1b), (1c) and (1d) would be effective at providing additional reductions in construction noise levels at both the first and second floors of the fire station building. With the implementation of proposed mitigation measures, the maximum short-term noise increase at Fire Station No. 111 of 10 dBA would be reduced by at least 5 dBA so that project-related demolition and sediment disposal activities would not result in an increase in ambient noise conditions of more than 5 dBA. Therefore, short-term construction-related impacts to the fire station would be reduced to a less than significant level by implementing the requirements of proposed mitigation measure NOI-1.

Impact NOI-2: Alternative 1 construction activities would not exceed the ambient noise level by 5 dBA at a noise sensitive use between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. on Saturday, or at any time on Sunday.

The only short-term construction-related activities that would occur between the hours of 9:00 pm and 7:00 am Monday through Friday, before 8:00 am on Saturday or on Sunday would be dredging operations to develop dike trenches at the Berths 243-245, Northwest Slip and CSWH Expansion Area sites. As proposed, trench-related dredging would occur on a 24-hour per day, seven days per week basis. Other proposed construction operations at the Berths 243-245 and Northwest Slip project sites, and the development of the Elgrass Habitat Area and the CSWH Expansion Area would not occur during nighttime hours or on Sunday.

As shown on Tables 3.10-4, 5 and 6, dredging required to construct the proposed dike trenches at the Berths 243-245, Northwest Slip and CSWH project sites would not increase existing noise levels at the nearest receptor locations by more than five dBA. Therefore, nighttime and weekend construction-related operations would not result in a significant noise impact.

Impact Determination

Implementation of Alternative 1 would not exceed the ambient noise level by 5 dBA at a noise sensitive use between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. on Saturday, or at any time on Sunday. Therefore, no impacts would occur.

Mitigation Measures. Under Alternative 1, no significant adverse impacts would occur; therefore, no mitigation measures are required

Residual Impacts. No mitigation measures for implementation of Alternative 1 are required. Therefore, no residual impacts would occur.

Impact NOI-3: **Alternative 1 would not cause ambient noise levels at an affected land use to increase by 3 dBA CNEL to or within the “normally unacceptable” or “clearly unacceptable” category, or any 5 dBA or greater noise increase.**

Impact NOI-3 addresses potential noise impacts resulting from long-term project-related operations, and is not applicable to short-term construction-related impacts that may result from the disposal activities at Berths 243-245, Northwest Slip, CSWH Expansion Area, ~~Eelgrass Habitat Area~~, or LA-2. Potential construction-related noise impacts from project-related construction activities are evaluated above under Impacts NOI-1 and NOI-2.

Impact Determination

Since there are no long term operational activities associated with any of the disposal sites proposed under Alternative 1, ambient noise levels would not increase as a result of long-term project-related operations. As such no impacts would occur.

Mitigation Measures. Under Alternative 1, no significant adverse impacts would occur; therefore, no mitigation measures are required

Residual Impacts. No mitigation measures for implementation of Alternative 1 are required. Therefore, no residual impacts would occur.

3.2.6.2 Alternative 2: Environmental Enhancement and Ocean Disposal

Alternative 2, Environmental Enhancement and Ocean Disposal, consists of placing dredge material at the following locations: CSWH Expansion Area, ~~Eelgrass Habitat Area~~, Anchorage Road Soil Storage Site (ARSSS), LA-2 and LA-3. No new land area would be created as a result of this alternative.

Implementation of Alternative 2 would result in the same type and extent of development at the CSWH Expansion Area ~~and the Eelgrass Habitat Area disposal locations~~ as described for Alternative 1. ~~Although Alternative 2 would also result in a higher volume of sediments disposed at LA-2 (and thus longer construction duration at the site), this site is located in the open ocean approximately 5.8 miles from shore and this longer duration of construction the same disposal activities would not affect the less than significant impacts identified for this and the disposal location for of the same amount of sediment at LA-2 as would occur under Alternative 1.~~ Alternative 2 would result in identical less than significant impacts as described for Alternative 1 at the CSWH Expansion Area, ~~the Eelgrass Habitat Area~~, and LA-2. Therefore, the impact

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discussion for Alternative 2 is focused on the disposal sites that were not included or discussed under Alternative 1, the ARSSS and LA-3.

Impact NOI-1: **Alternative 2 would result in construction activities that exceed existing ambient exterior noise levels by 5 dBA or more at a noise-sensitive use.**

ARSSS. Alternative 2 would result in the use of the existing ARSSS. Sediments would be placed in barges and shipped to an offloading site at Shore Road near berth 200z. The material would be transferred from the barge by clamshell dredge to a temporary bermed holding area and subsequently transferred to trucks for transport to the ARSSS, approximately 0.15 miles away, across Shore Road. The use of this site would not require any demolition activities. Noise-generating equipment used at the ARSSS is identified on Table 3.10-7, along with an estimate of how many days and how many hours per day each piece of equipment would be used.

Table 3.10-7 Anchorage Road Sediment Storage Site Construction Noise Impacts

Construction Activity (Operation Days)	Equipment Use (Hours per Day) ¹	Distance to Nearest Sensitive Receptor ² (ft)	Ambient Conditions (dBA Leq)	Construction Noise at Receptor Site (dBA Leq)	Increase over Existing Noise Condition ² (dBA)	Significant Impact?
Sediment Off-Loading	1 Clamshell Dredge (24)	500	68	65	0	No
Sediment Hauling (12/30)	1 Bulldozer (12)	400	68	73	5	Yes
	1 Haul Truck (6)	150				
Sediment Placement (12/30)	1 Bulldozer (12) 1 Haul Truck (6)	350	68	70	2	No

- (1) Haul truck noise was assumed to be the equivalent of one truck passing a sensitive receptor location for six hours out of a twelve hour workday.
- (2) The sensitive noise receptors closest to the project site are liveboards located west and south of the disposal site (150 ft).

Sensitive noise receptors located in the vicinity of the ARSSS include liveboards located approximately 500 feet southwest of the proposed barge unloading area, and liveboards approximately 150 feet west of the western edge of the ARSSS site. Receptors would also be located approximately 150 feet west of Shore Road, which would be used by haul trucks traveling from the off-loading location to the storage site. Liveboards located in the Cerritos Channel harbors would be a minimum of 350 feet south of the storage area.

As depicted on Table 3.10-8, noise levels at the receptors located west of the ARSSS would be 73 dBA when sediment disposal operations occur at a distance of 400 feet from the western boundary of the storage site. Under these conditions, noise from sediment placement operations would cause an increase of five dBA over existing conditions at a sensitive receptor location, which would result in a significant impact. When disposal operations occur more than 400 feet from the disposal site's western boundary, noise levels at the receptors would no longer result in

a five dBA increase from existing noise conditions. Sediment off-loading operations would result in noise levels of approximately 65 dBA at liveboards southwest of the temporary storage site, and disposal operations would result in noise levels of approximately 70 dBA at liveboards located south of the disposal site along the Cerritos Channel. These temporary noise increases would not exceed ambient conditions by more than five dBA.

LA-3. LA-3 is an offshore disposal site and no construction-related operations would be required for its use under Alternative 2. The two barge trips per day that would be required to transport 0.416 mcy of sediment to the offshore site would be minimal compared to existing Port-related vessel traffic and would not substantially increase existing ambient noise levels within the Port. Combined additional vessel traffic to transport sediment to the LA-2 and LA-3 sites would also not result in a substantial increase in vessel-related noise in or around the Port. Therefore, the use of the LA-3 site would not exceed an adopted significance threshold for construction noise.

Impact Determination

Peak noise levels during construction of Alternative 2 at the receptors located west of the ARSSS would be increased to 73 dBA, which would be an increase of five dBA over existing conditions. This increase would result in a significant impact. The use of LA-3 would result in less than significant impacts at the sensitive receptor locations.

Mitigation Measures

MM NOI-2: Noise Attenuation Measures. Sediment disposal activities at the ARSSS shall not occur within 400 feet of the western boundary of the project site. If this is not possible, the environmental monitor shall ensure that a berm of at least ten (10) feet in height is constructed between the western boundary of the disposal site and active disposal operations.

Residual Impacts. Maintaining a separation distance of at least 400 feet between sediment placement operations at the ARSSS and the sensitive receptors west of the site would reduce sediment disposal noise to a less than significant level. Using sediment material to construct a berm at least 10 feet in height between the western boundary of the disposal site and active sediment disposal operations would reduce noise levels at the sensitive receptors located west of the project site by approximately five dBA. This reduction in construction noise would also reduce short-term construction noise impacts resulting from the use of the ARSSS to a level similar to existing ambient conditions and would reduce project-related impacts to a less than significant level.

Impact NOI-2: Alternative 2 would not result in construction activities that exceed the ambient noise level by 5 dBA at a noise sensitive use between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. on Saturday, or at any time on Sunday.

Proposed sediment disposal operations at the ARSSS and LA-3 would not occur during nighttime hours. Therefore, construction operations would not cause exterior noise levels at the sensitive receptors located closest to these project sites to be increased by 5 or more dBA.

Impact Determination

Since implementation of Alternative 2 would not result in construction activities that exceed the ambient noise level by 5 dBA at a noise sensitive use between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. on Saturday, or at any time on Sunday, no impacts would occur.

Mitigation Measures. Under Alternative 2, no potentially significant adverse impacts would occur; therefore, no mitigation measures are required

Residual Impacts. No mitigation measures for implementation of Alternative 2 are required. Therefore, no residual impacts would occur.

Impact NOI-3: Alternative 2 would have the potential to cause ambient noise levels at an affected land use to increase by 3 dBA CNEL, to or within the “normally unacceptable” or “clearly unacceptable” category, or any 5 dBA or greater noise increase.

Impact NOI-3 addresses potential noise impacts resulting from long-term project-related operations and is not applicable to disposal activities at the ARSSS or LA-3. Potential construction-related noise impacts from project-related construction activities are evaluated above under Impacts NOI-1 and NOI-2.

Impact Determination

Since there are no long term operational activities associated with any of the disposal sites proposed under Alternative 2, ambient noise levels would not increase as a result of long-term project-related operations. As such no impacts would occur.

Mitigation Measures. Under Alternative 2 no potentially significant adverse impacts would occur; therefore, no mitigation measures are required.

Residual Impacts. No mitigation measures for implementation of Alternative 2 are required. Therefore, no residual impacts would occur.

3.10.6.3 Alternative 3: No Action

Under the No Action Alternative, no construction activities related to the Proposed Action would occur. No new landfills or new shallow water areas would be created. Since all approved disposal sites have been completed, no further dredging would take place and the Channel Deepening Project would not be completed. Existing environmental conditions at the Proposed Action disposal sites would continue to exist. Approximately 1.025 mcy of material within the federally-authorized channel and 0.675 mcy of berth dredging would remain to be dredged and disposed. In addition, the 0.815 mcy of surcharge on the Southwest Slip Area would remain to be removed and disposed. Additionally, the 0.08 mcy of contaminated dredge material would remain within the Main Channel of the Port.

Impact NOI-1: **Alternative 3 would not result in construction activities that would exceed existing ambient exterior noise levels by 5 dBA or more at a noise-sensitive use.**

Under Alternative 3, construction activities related to the Proposed Action would not occur. Alternative 3 would not result in an increase in exterior noise levels.

Impact Determination

Since Alternative 3 would not result in increased exterior noise levels that would exceed existing ambient exterior noise levels by 5 dBA or more at a noise-sensitive use, no impacts would occur.

Mitigation Measures. Under Alternative 3, no potentially significant adverse impacts would occur; therefore, no mitigation measures are required.

Residual Impacts. No mitigation measures for implementation of Alternative 3 are required. Therefore, no residual impacts would occur.

Impact NOI-2: **Alternative 3 construction activities would not exceed the ambient noise level by 5 dBA at a noise sensitive use between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. on Saturday, or at any time on Sunday.**

No construction activities would occur under Alternative 3 and no construction-related noise would occur.

Impact Determination

Since Alternative 3 would not result in construction noise, it would not have the potential to exceed ambient noise levels and no impacts would occur.

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Mitigation Measures. Under Alternative 3, no potentially significant adverse impacts would occur; therefore, no mitigation measures are required.

Residual Impacts. No mitigation measures for implementation of Alternative 3 are required. Therefore, no residual impacts would occur.

Impact NOI-3: **Alternative 3 would have the potential to cause ambient noise levels at an affected land use to increase by 3 dBA CNEL, to or within the “normally unacceptable” or “clearly unacceptable” category, or any 5 dBA or greater noise increase.**

This impact threshold pertains to long-term increases in ambient noise levels. Alternative 3 would not result in the project-related development of new land or subsequent new long-term land uses. Therefore, no long-term noise impacts would result from the implementation of Alternative 3.

Impact Determination

No impacts would occur.

Mitigation Measures. Under Alternative 3, no potentially significant adverse impacts would occur; therefore, no mitigation measures are required.

Residual Impacts. No mitigation measures for implementation of Alternative 3 are required. Therefore, no residual impacts would occur.

3.10.7 Impact Summary

This section summarizes the conclusions of the impact analysis presented above in Section 3.10.6. Table 3.10-8 lists each impact identified for each alternative of the Proposed Action, along with the significance of each impact.

Table 3.10-8 Impact Summary

Impact	Alternative 1	Alternative 2	Alternative 3
NOI-1. Construction activities would exceed existing ambient exterior noise levels by 5 dBA or more at a noise-sensitive use.	SM	SM	NI
NOI-2. Construction activities would not exceed the ambient noise level by 5 dBA at a noise sensitive use between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. on Saturday, or at any time on Sunday.	NI	NI	NI
NOI-3. Ambient noise levels at an affected land use would increase by 3 dBA CNEL, to or within the “normally unacceptable” or “clearly unacceptable” category, or any 5 dBA or greater noise increase.	NI	NI	NI

S&U = Significant and Unavoidable
 LTS = Less than Significant

SM = Significant but Mitigated
 NI = No Impact

Construction activities at the Berths 243-245 disposal site under Alternative 1 would result in significant but mitigable short-term construction-related noise impacts to Fire Station No. 111. Use of the ARSSS under Alternative 2 would result in significant but mitigable short-term construction-related noise impacts to liveboards located west of and adjacent to the project site. Implementation of Alternative 3 would not result in any short- or long-term noise impacts.

3.10.8 Mitigation Measures

MM NOI-1 Temporary Construction Noise Control. The Port shall require that the following noise control measures be provided prior to start of proposed demolition and sediment disposal operations at the Berths 243-245 disposal site, and that the measures be implemented throughout proposed demolition and sediment disposal operations.

- 1a. A temporary solid fence or similar barrier at least eight feet in height shall be provided between the construction site and Fire Station No. 111 to minimize short-term, construction-related noise impacts. The noise barrier shall be constructed of one half inch-thick plywood (or other material of comparable thickness) and there shall be no gaps in the barrier. The barrier shall be placed as close to the construction site as possible.
- 1b. Construction material, equipment and vehicle staging areas shall be located as far from Fire Station No. 111 as practicable.
- 1c. Portable or stationary equipment, such as but not limited to generators, air compressors and saws, shall be located as far from Fire Station No. 111 as practicable.
- 1d. All construction equipment shall be maintained with engine covers, shields, mufflers and screening as provided by the manufacturer.

MM NOI-2 Noise Attenuation Measures. Sediment disposal activities at the Anchorage Road Soil Storage Site shall not occur within 400 feet of the western boundary of the project site. If this is not possible, the environmental monitor shall ensure that a berm of at least ten (10) feet in height is constructed between the western boundary of the disposal site and active disposal operations.

3.10.9 Significant Unavoidable Adverse Impacts

Implementation of the proposed mitigation measures would reduce potential noise impacts of the Proposed Action to a less than significant level. No significant unavoidable impacts would occur.

3.10.10 Mitigation Measure Monitoring

Mitigation and monitoring requirements for proposed Mitigation Measures NOI-1 and NOI-2 are provided in Table 3.10-9.

Table 3.10-9 Mitigation Monitoring Plan – Noise

Resource	Description of Impact	Environmental Commitment/Mitigation	Start Date or Event	Responsible Party	Duration	Frequency	Level of Significance after Mitigation
Noise	NOI-1. Sediment disposal activities at the Berths 243-245 disposal site would have the potential to result in significant short- term noise impacts to Fire Station No. 111.	<p>MM NOI-1: Temporary Construction Noise Control. The Port shall require that the following noise control measures be provided prior to start of proposed demolition and sediment disposal operations at the Berths 243-245 disposal site, and that the measures be implemented throughout proposed demolition and sediment disposal operations.</p> <ul style="list-style-type: none"> • A temporary solid fence or similar barrier at least eight feet in height shall be provided between the construction site and Fire Station No. 111 to minimize short-term, construction-related noise impacts. The noise barrier shall be constructed of one half inch-thick plywood (or other material of comparable thickness) and there shall be no gaps in the barrier. The barrier shall be placed as close to the construction site as possible. • Construction material, equipment and vehicle staging areas shall be located as far from Fire Station No. 111 as practicable. • Portable or stationary equipment, such as but not limited to generators, air compressors and saws, shall be located as far from Fire Station No. 111 as practicable. <p>All construction equipment shall be maintained with engine covers, shields, mufflers and screening as provided by the manufacturer.</p>	<p>Construction: Throughout demolition and sediment placement activities.</p> <p>Future Maintenance: Throughout demolition and sediment placement activities.</p>	<p>Construction: POLA Engineering Division/ USACE</p> <p>Future Maintenance: POLA Engineering Division/ USACE</p>	<p>Construction: Throughout demolition and sediment placement activities.</p> <p>Future Maintenance: Throughout demolition and sediment placement activities.</p>	<p>Construction: Prior to the start of demolition and sediment placement activities. Thereafter, weekly until demolition and sediment placement activities are concluded. Inspections are to be made in response to complaints.</p> <p>Future Maintenance: Once per week during demolition and sediment placement.</p>	Less than significant

Resource	Description of Impact	Environmental Commitment/Mitigation	Start Date or Event	Responsible Party	Duration	Frequency	Level of Significance after Mitigation
Noise	NOI-2. Construction noise resulting from the use of the Anchorage Road Soil Storage Site under Alternative 2 would have the potential to result in significant short-term construction noise impacts to sensitive noise receptors located west of the disposal site.	MM NOI-2: Noise Attenuation Measures. Sediment disposal activities at the Anchorage Road Soil Storage Site shall not occur within 400 feet of the western boundary of the disposal site. If this is not possible, the environmental monitor shall ensure that a berm of at least ten (10) feet in height is constructed between the western boundary of the disposal site and active disposal operations.	Construction: Throughout sediment placement activities. Future Maintenance: Throughout sediment placement activities.	Construction: POLA Engineering Division/ USACE Future Maintenance: POLA Engineering Division/ USACE	Construction: Throughout sediment placement activities. Future Maintenance: Throughout sediment placement activities.	Construction: Prior to the start of sediment placement activities. Thereafter, weekly until sediment placement activities are concluded. Inspections are to be made in response to complaints. Future Maintenance: Once per week during sediment placement.	Less than significant