DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

Haynes Generating Station Intake Channel Infill Project

PREPARED BY



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Acronyms and Abbreviations

Acronym/Abbreviation	Definition		
AB	Assembly Bill		
AQMP	Air Quality Management Plan		
BCY	bank cubic yard		
BMP	best management practice		
CAAQS	California Ambient Air Quality Standards		
CalEEMod	California Emissions Estimator Model		
CAL FIRE	California Department of Forestry and Fire Services		
Caltrans	California Department of Transportation		
CARB	California Air Resources Board		
CCC	California Coastal Commission		
CDFW	California Department of Fish and Wildlife		
CEMP	California Eelgrass Mitigation Policy		
CEQA	California Environmental Quality Act		
CGP	Construction General Permit		
CH ₄	methane		
CHRIS	California Historical Resources Information System		
CO	carbon monoxide		
CO ₂	carbon dioxide		
CO ₂ e	carbon dioxide equivalent		
CRHR	California Register of Historical Resources		
CWA	Clean Water Act		
CY	cubic yard		
dBA	A-weighted decibel		
DDT	dichlorodiphenyltrichloroethane		
DTSC	Department of Toxic Substances Control		
EDR	Environmental Data Resources		
EFH	Essential Fish Habitat		
EO	Executive Order		
ER-L	Effects Range-Low		
ER-M	Effects Range-Median		
FEMA	Federal Emergency Management Agency		
FHSZ	fire hazard severity zone		
FMP	fishery management plan		
GHG	greenhouse gas		
GWP	global warming potential		
HAPC	Habitat Area of Particular Concern		

Acronym/Abbreviation	Definition		
HFC	hydrofluorocarbon		
	Interstate		
in/sec	inches per second		
IS	initial study		
LACM	Natural History Museum of Los Angeles County		
LADWP	Los Angeles Department of Water and Power		
LCY	loose cubic yard		
L _{eq}	equivalent continuous sound level		
LOS	level of service		
LST	localized significance threshold		
MAMP	monitoring and adaptive management plan		
MM	Mitigation Measure		
MND	mitigated negative declaration		
MT	metric ton		
MW	megawatt		
N ₂ O	nitrous oxide		
NAAQS	National Ambient Air Quality Standards		
NCCP/HCP	Natural Communities Conservation Plan/Habitat Conservation Plan		
NF ₃	nitrogen trifluoride		
NMFS	National Marine Fisheries Service		
NO ₂	nitrogen dioxide		
NO _x	oxides of nitrogen		
NPDES	National Pollutant Discharge Elimination System		
O ₃	ozone		
OPR	California Governor's Office of Planning and Research		
OTC	once-through cooling		
PAH	polycyclic aromatic hydrocarbon		
PCB	polychlorinated biphenyl		
PCE	passenger car equivalent		
PD-1	Planned Development District 1		
PFC	perfluorocarbon		
PM _{2.5}	particulate matter with an aerodynamic diameter less than or equal to 2.5 microns		
PM ₁₀	particulate matter with an aerodynamic diameter less than or equal to 10 microns		
RTP	Regional Transportation Plan		
RWQCB	Regional Water Quality Control Board		
SB	Senate Bill		
SCAB	South Coast Air Basin		
SCAG	Southern California Association of Governments		

Acronym/Abbreviation	Definition
SCAQMD	South Coast Air Quality Management District
SCS	Sustainable Communities Strategy
SEADIP	Southeast Area Development and Improvement Plan
SEASP	Southeast Area Specific Plan
SF ₆	sulfur hexafluoride
SMP	Soil/Sediment Management Plan
SO ₂	sulfur dioxide
SoCalGas	Southern California Gas
SO _x	sulfur oxides
SR	State Route
STLC	soluble threshold limit concentration
SWPPP	storm water pollution prevention plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
USACE	U.S. Army Corps of Engineers
VMT	vehicle miles traveled
VOC	volatile organic compound
WMP	Waste Management Plan

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PREFACE

This revised Draft Initial Study/Mitigated Negative Declaration (IS/MND) for the Haynes Generating Station (Haynes) Intake Channel Infill Project (project) is being recirculated in its entirety due to substantial revisions made to the previously released Draft IS/MND (previous Draft IS/MND). Although the previous Draft IS/MND was circulated for agency and public review in December 2019, it was not subsequently presented to or adopted by the Los Angeles Board of Water and Power Commissioners.

The project as originally proposed by the Los Angeles Department of Water and Power (LADWP) in 2018 involved filling the northernmost approximately 475 feet of the existing Haynes Intake Channel with earthen material. This would encompass the ocean-water once-through cooling (OTC) intakes for Haynes Generation Units 5 and 6 (which were removed from service in 2013) but would stay north of the OTC intakes for Generation Unit 8, which are scheduled to be retired no later than December 31, 2029, but currently remain in service. Based on this proposed project area, biological surveys of the Haynes Intake Channel were conducted in 2018 that encompassed not only the infill site (i.e., the northernmost 475 feet of the Haynes Intake Channel) but also additional portions of the Haynes Intake Channel south of the infill site within the Haynes property and outside of Haynes, south of the 2nd Street bridge. These additional survey areas served as "reference sites" and "potential mitigation sites" for anticipated impacts to eelgrass (*Zostera marina*). In addition, the 2018 biological surveys encompassed areas surrounding the Haynes Intake Channel infill site to address terrestrial plants and wildlife as well as avian species.

However, after the completion of these surveys, the boundary of the infill site was modified. During on-site meetings hosted by LADWP in June 2019, staff from the California Department of Fish and Wildlife (CDFW) and the California Coastal Commission (CCC) suggested that the project footprint be expanded to encompass the entire intake channel within Haynes (i.e., from its northern terminus south to the 2nd Street bridge). This suggestion was made because of the potential that the balance of the Haynes Intake Channel (south of the originally proposed northernmost 475 feet, for a total length of 2,150 feet) might be filled after the removal from service (by December 31, 2029) of the remaining generation units that currently use OTC (Haynes Units 1, 2, and 8), as mandated by the California State Water Resources Control Board.

Therefore, in September, October, and December 2019, biological surveys of the entire intake channel within Haynes were conducted to provide an existing baseline to support an assessment of potential impacts to biological resources that would result from filling the 2,150 feet of channel within Haynes. In addition, the 2019 surveys encompassed areas surrounding this portion of the Haynes Intake Channel to address terrestrial plants and wildlife as well as avian species. The surveys also included the entire open channel south of the 2nd Street bridge to Pacific Coast Highway as a "reference site" and "potential mitigation site" for anticipated impacts to eelgrass. To provide a current, comprehensive, and consistent baseline relative to methods and results, the area of the Haynes Intake Channel previously surveyed in 2018 in relation to filling only the northernmost portion of the channel was resurveyed during the 2019 timeframe. The

2019 surveys were conducted prior to the public release of the previous Draft IS/MND and formed the basis for the environmental assessment in that document.

As discussed above, the previous Draft IS/MND was made available for agency and public review in December 2019, with an approximately 45-day review period. During this review period, eight comment letters were received. Impacts to biological resources were a primary focus of these comments, as provided by CDFW and Los Cerritos Wetlands Land Trust, a non-governmental organization supporting the restoration of the wetlands. In particular, the lack of identification of a significant impact, as well as related mitigation, involving the loss of marine shallow open water and soft-bottom benthic habitat was noted in the comments.

The current revised Draft IS/MND has now identified the loss of shallow open water and soft-bottom benthic habitat created by the channel infilling as a significant impact and has proposed mitigation measures to reduce this impact to a less than significant level. According to the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000–15387), "A lead agency is required to recirculate a negative declaration when the document must be substantially revised after public notice of its availability has previously been given pursuant to Section 15072, but prior to its adoption" (14 CCR 15073.5[a]), and a substantial revision would include that "A new, avoidable significant effect is identified and mitigation measures or project revisions must be added in order to reduce the effect to insignificance" (14 CCR 15073.5[b][1]).

Therefore, because a new impact and associated mitigation measures in relation to shallow open water and soft-bottom benthic habitat have been identified for the project, this revised Draft IS/MND has been prepared in accordance with the current CEQA Guidelines and is being recirculated in its entirety.

1 INTRODUCTION

1.1 Project Overview

The Los Angeles Department of Water and Power (LADWP) proposes to fill the existing circulating cooling water intake channel at the Haynes Generating Station (Haynes) with earthen material. The Haynes Generating Station Intake Channel Infill Project (also referred to herein as the project or proposed project) would be undertaken to provide additional developable land at Haynes for future energy storage and/or renewable energy generation facilities critical to LADWP's program to substantially reduce the amount of electrical power generated by the combustion of fossil fuels, thereby reducing the production of greenhouse gases (GHGs) and air pollutant emissions and increasing the sustainability of electrical power production through expanded use of renewable energy. The existing intake channel (Haynes Intake Channel) is used to supply ocean water to the once-through cooling (OTC) systems for the remaining three generation units that currently use OTC (Haynes Units 1, 2, and 8) at Haynes. However, based on state mandates, these OTC systems at Haynes will be eliminated over the next decade; therefore, the Haynes Intake Channel will no longer provide an operational function. As discussed in greater detail below, the proposed project would be implemented in two phases based on the removal from service of the OTC systems associated with Units 1, 2, and 8. As the OTC systems are removed from service, the Haynes Intake Channel can be filled, creating new developable land at Haynes. Phase I of the project is scheduled to begin construction in late 2021 and be completed in 2023. Phase II is scheduled to begin construction in 2030 and be completed in 2032.

1.2 California Environmental Quality Act Compliance

The California Environmental Quality Act (CEQA; California Public Resources Code Section 21000 et seq.) applies to proposed projects initiated by, funded by, or requiring discretionary approvals from state or local government agencies. The proposed infilling of the Haynes Intake Channel constitutes a project as defined by CEQA. The CEQA Guidelines Section 15367 states that a lead agency is "the public agency which has the principal responsibility for carrying out or approving a project" (14 CCR 15367). Therefore, as a municipal utility that will implement the proposed project, LADWP is the lead agency responsible for compliance with CEQA.

As lead agency for the project, LADWP must complete an environmental review to determine whether implementation of the project would result in significant adverse environmental impacts and to propose measures, as feasible, to eliminate or reduce any such identified impacts. To fulfill the purpose of CEQA, an initial study (IS) has been prepared to assist in making that determination. Based on the nature and scope of the proposed project and the evaluation contained in the IS checklist (Chapter 3 of this document), LADWP has concluded that a mitigated negative declaration (MND) is the proper level of environmental documentation for this project. The IS shows that impacts caused by the proposed project are either less than significant or significant but mitigable with the incorporation of appropriate

mitigation measures, as defined herein. This conclusion is supported by the CEQA Guidelines (14 CCR 15070), which state that an MND shall be prepared when:

(a) the initial study shows that there is not substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, or (b) the initial study identifies potentially significant effects, but (1) revisions in the project plans or proposals made by, or agreed to by the applicant before a proposed mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur; and (2) there is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment.

1.3 Project Setting

Haynes is one of four LADWP natural-gas generating stations located in the Los Angeles basin (see Figure 1, Regional Location). It is located at 6801 East 2nd Street in the City of Long Beach. Haynes is a fully developed industrial property consisting of approximately 130 acres, the majority of which is located in the City of Long Beach, County of Los Angeles. Approximately 7.5 acres in the northeast corner of the Haynes property is located in the City of Seal Beach, County of Orange. The proposed project site (i.e., the OTC intake channel, referred to as the Haynes Intake Channel in this document) is located in the south-central portion of the Haynes property, entirely within the City of Long Beach. The Haynes Intake Channel was constructed by LADWP solely for the operation of the Haynes Generating Station. The Haynes property is designated for industrial use in the Long Beach Southeast Area Specific Plan (SEASP).

Uses surrounding Haynes consist primarily of industrial, commercial, and residential functions, including the following:

- The Leisure World residential community along the entire eastern boundary of Haynes, separated from Haynes by an Orange County Flood Control District channel
- Light industrial functions (including office, research and development, and manufacturing) in the Boeing Integrated Defense Systems Specific Plan Area to the southeast
- The Island Village residential community to the south, across 2nd Street
- Approximately 503 acres of land within the Los Cerritos Wetlands Complex, an area that covers the central portion of the historical Seal Beach Oil Field and that has been proposed for restoration to wetlands, which once encompassed the area
- The AES Alamitos Generating Station (an electrical generating station operated by the AES Corporation) along the entire western boundary, across the San Gabriel River
- Residential areas and a community park to the north, across State Route (SR) 22

Most of the eastern boundary of Haynes is also the boundary between Los Angeles County and Orange County as well as the boundary between the Cities of Long Beach and Seal Beach (see Figure 2, Vicinity Map).

The Haynes site was acquired by LADWP in 1957 for the purpose of constructing a steam-boiler generating facility to replace the Seal Beach Steam Generating Plant, which had been operating in the area since the mid-1920s. Generation Units 1 and 2 at Haynes (the southernmost of the original generators) were placed into operation in 1962 and 1963, respectively; Units 3 and 4 were placed into operation in 1964 and 1965, respectively; and Units 5 and 6 were placed into operation in 1966 and 1967, respectively. Unit 7 (a small diesel emergency backup power generator) was added in 1970. The six original steam-boiler units all used an ocean-water OTC system for generator cooling, drawing water from an intake structure located in Alamitos Bay Marina via a channel (the Haynes Intake Channel) that extends from the southeast corner of the marina beneath the San Gabriel River in a set of seven conduits, and approximately 1 mile northeast as an open channel to the 2nd Street bridge and the southern boundary of Haynes. The Haynes Intake Channel then proceeds approximately 2,150 feet north within Haynes, to the east of the original six generation units (see Figure 3, Project Site Location). The OTC water is pumped from the Haynes Intake Channel into the generation unit condensers, passed through the condensers to condense exhaust steam, and discharged into the San Gabriel River, located along the western boundary of Haynes.

In 2004, a combined-cycle generating system (Units 8, 9, and 10) replaced steam-boiler Units 3 and 4, which were decommissioned. The combined-cycle generating system, which consists of one steam-turbine generator that is operationally paired with two natural-gas-combustion-turbine generators, adapted the OTC system from Units 3 and 4. In 2013, a simple-cycle generation system consisting of six combustion turbine generators (Units 11 through 16) replaced steam-boiler Units 5 and 6, which were decommissioned. Instead of adapting the OTC system from Units 5 and 6, the simple-cycle generation system uses a closed-cycle dry cooling system; therefore, upon commissioning of the simple-cycle generation system, both Units 5 and 6 and their associated OTC cooling system were removed from service. The original steam-boiler Units 1 and 2, including the OTC system, remain operational. The total installed generating capacity of Haynes is currently 1,738 megawatts (MW), and the net dependable generating capacity is approximately 1,585 MW. Because Units 3 through 6 have been removed from service, they are currently undergoing demolition, along with facilities ancillary to their operation.

Within Haynes, the Haynes Intake Channel is trapezoidal in cross section and has earthen embankments that have been stabilized with a grouted stone material along the upper extent to below the water line. The channel has a depth of approximately 26 to 28 feet when measured from the top of bank. The width at the top of bank within the project limits ranges from approximately 140 feet in the northern portions to approximately 185 feet in the southern portions. The estimated volume of the Haynes Intake Channel to the southern edge of the 2nd Street bridge measured from the top of bank is approximately 255,000 cubic yards (CY).

At the top of bank, the total project area encompasses approximately 8.8 acres, of which approximately 0.8 acres is located south of the Haynes fence line and beneath the 2nd Street bridge. Because the water level in the channel remains substantially below the top of bank, the surface area of the open water encompassed by the project limits is approximately 7.64 acres, as established by the evident staining left by water on the side walls of the channel. The stain

(water mark) generally demarcates the maximum lateral extent of water in the Haynes Intake Channel based on nearly 60 years of channel operations.

1.4 Document Organization

This IS/MND is composed of the following four chapters:

- Chapter 1, Introduction, provides a general overview of the project, CEQA requirements related to the project, the organization of the IS/MND, and documents incorporated by reference.
- Chapter 2, Project Description, includes a description of the project location, environmental setting, proposed project components, construction, best management practices, and required approvals.
- Chapter 3, Initial Study Checklist, provides the IS checklist from the CEQA Guidelines. This chapter assesses potential environmental impacts from the proposed project and identifies mitigation measures to reduce potentially significant impacts to less than significant.
- Chapter 4, Report Preparers, includes a list of LADWP staff and consultants involved in preparing the IS/MND.

The IS/MND also includes several appendices that contain technical data related to air quality and GHG emissions, biological resources, and hazards and hazardous materials.



Haynes Generating Station Intake Channel Infill

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SOURCE: ESRI World Imagery



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FIGURE 2 Vicinity Map Haynes Generating Station Intake Channel Infill

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LA Los Angeles DWP Department of Water & Power

500 1,000

Project Site Location Haynes Generating Station Intake Channel Infill

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2 PROJECT DESCRIPTION

2.1 Background

2.1.1 Once-Through Cooling Phase-Out

Because of water's high thermal conductivity, the use of an OTC system is a very efficient way to condense steam to water after the steam is exhausted from a generator, to then be recycled within the closed-loop steam generator system. OTC systems were once a prevalent means of providing cooling for steam generation units, as evidenced by numerous power plants in California and across the nation that were sited along coastal and inland water bodies. The location of three LADWP generating stations, including Haynes, along the coast was established based on the availability of ocean water for cooling and the ability to discharge the cooling process water to the ocean once it had been used to condense steam.

An OTC system for large steam generation units requires a constant flow of substantial volumes of relatively cool water to continuously condense steam. However, in recent years, state and federal regulations have established stricter limitations on the operation of OTC systems related to environmental impacts potentially created by the use of ocean water for generation unit cooling. In 2010, in response to potential impacts related to the impingement and entrainment of aquatic organisms drawn in by the cooling water intakes, the California State Water Resources Control Board (SWRCB) adopted the Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling (OTC Policy), which implements standards to comply with the federal Clean Water Act (CWA) Section 316(b) regarding the design and operation of cooling water intake structures. This policy makes compliance with the defined impingement and entrainment limits extremely challenging for generation units that continue to operate with OTC systems.

Based on SWRCB's OTC Policy, LADWP committed to eliminating all OTC systems at its three coastal generating stations by the end of 2029, under a schedule agreed upon by LADWP and SWRCB. This includes the current cooling systems for Units 1, 2, and 8 at Haynes. In addition, LADWP has also committed to substantially reducing its in-basin natural-gas power generation capacity at the generating stations that currently use OTC systems. This reduction in natural-gas generation could result in the loss of up to approximately 1,660 MW of total generation capacity and approximately 1,440 MW of net dependable generation capacity by the end of 2029. This represents approximately 38% of LADWP's total natural-gas net dependable generation capacity and approximately 44% of its in-basin natural-gas net dependable generation capacity and approximately 44% of its in-basin natural-gas net dependable capacity. It also represents nearly 20% of LADWP's total installed net dependable generation capacity of 7,531 MW (LADWP 2017). In order to make this transition away from fossil-fuel generation, thereby reducing the production of GHG and air pollutant emissions and increasing the sustainability of electrical power system, LADWP intends, among other initiatives, to accelerate its program to substantially increase its renewable energy generation resources, including energy storage.

2.1.2 Integration of Renewable Resources

A fundamental characteristic of natural-gas power generation is the capability to dispatch energy relatively rapidly and in a controlled manner to effectively respond to sometimes wide fluctuations in demand for electricity. This capability, which is essential to the reliability of the LADWP power system, will be greatly reduced during the transition to renewable energy because renewable resources are intermittent and variable in their generation capacity, which is dependent on the environmental conditions at a given moment (e.g., the current availability of sun or wind). Therefore, renewable energy generation capacity fluctuates widely without regard to demand and can at times be either insufficient to meet current demand or produced in surplus beyond current demand.

The primary process to address the intermittent and variable nature of renewable energy generation is through various technologies that have the capability to store electrical power when generation capacity exceeds demand and to dispatch that power in a controlled manner when demand exceeds generation capacity. This process is one aspect of what is known as "integration of renewable resources."

A characteristic of energy storage systems (as opposed to power generation systems) is that they are both a load (that is, they represent a demand for energy when they require charging) and a source of dispatchable power when they are discharged to help meet demand. For this reason, it is preferred that large energy storage systems be sited close to existing transmission lines, especially in urban environments where the construction of new lines is constrained. In addition, based on current technology, energy storage systems can provide limited amounts of energy over a relatively limited period until they are discharged. Therefore, to effectively integrate renewable resources to provide for the City of Los Angeles's demand, energy storage facilities require relatively large areas of land (compared to fossil-fuelcombustion generation units) to maximize storage capacity. This land-consumptive characteristic also applies to renewable energy generation facilities; that is, for an equivalent generation capacity, renewable facilities require considerably more land than fossil-fuel-combustion facilities.

References

LADWP (Los Angeles Department of Water and Power). 2017. 2017 Power Strategic Long-Term Resource Plan. December 2017; approved April 2018.

2.2 Project Objective

To help facilitate the transition to renewable energy and away from fossil-fuel generation, LADWP intends to use its existing Haynes property to the extent possible to develop energy storage and/or renewable-energy generation facilities. The plans for such facilities have yet to be prepared, and any such future projects would be subject to separate environmental reviews and approvals. However, due to the lack of vacant property at Haynes, LADWP intends to recover land within the boundaries of Haynes through the removal of facilities that are no longer in operation to provide flexibility for future project development in support of renewable energy goals. As discussed above, original steam-

boiler Generation Units 3 through 6 are currently being demolished, along with ancillary facilities. This demolition will make available approximately 8.0 acres of developable land. In the future, an additional 4.0 acres would become available with the demolition of Units 1 and 2, which, as discussed above, would be removed from service by December 31, 2029, as a result of the requirement to entirely eliminate OTC systems.

Because all OTC systems at Haynes will be eliminated, the Haynes Intake Channel located to the east of the original six steam-boiler generators will serve no function by December 31, 2029. At the top of bank, the Haynes Intake Channel within the Haynes property is approximately 8.0 acres in area north of the 2nd Street bridge. Therefore, LADWP proposes to fill in the Haynes Intake Channel with earthen material to reclaim this land for the future development of energy storage and/or renewable-energy generation projects. An additional approximately 0.8 acres of area within the Haynes Intake Channel and included in the proposed project is located beneath the 2nd Street bridge and would not represent developable land.

2.3 Project Phasing

The proposed infill project would occur in a phased manner based on the retirement of the individual OTC systems, the intakes for which require access to the water in the Haynes Intake Channel while they are still functional. As discussed above, original steam-boiler Generation Units 5 and 6 were decommissioned and removed from service in 2013, and the replacement simple-cycle generation system (Units 11 through 16) was developed with a separate dry cooling system that does not require the use of OTC. Since Units 5 and 6 were decommissioned, the OTC systems, including the associated intake structures in the Haynes Intake Channel, have also been out of service. Therefore, the northernmost approximately 475 feet of the Haynes Intake Channel, encompassing the Units 5 and 6 OTC intakes but staying north of the Unit 8 intakes (which are still operational), would be Phase I of the proposed project (see Figure 4, Project Phasing). This would provide approximately 1.6 acres of developable land.

The Unit 1, 2, and 8 OTC systems are still operational, but, as discussed above, they will be removed from service no later than December 31, 2029, to comply with SWRCB'S OTC Policy deadline for elimination of OTC. Therefore, the balance of the Haynes Intake Channel south of Phase I (approximately 1,675 feet in length), encompassing the Units 1, 2, and 8 intake structures and extending to the southern edge of the 2nd Street bridge, would be Phase II of the proposed project (see Figure 4). This would represent approximately 7.2 acres of area, but only approximately 6.4 acres would be developable land (i.e., not beneath the bridge).

In the event the Unit 8 OTC intakes are removed from service prior to the end of 2029, the proposed project may proceed in three rather than two phases, with the approximately 450-foot segment of the Haynes Intake Channel encompassing the Unit 8 intakes but staying north of the Unit 2 intake (which would still be operational), representing Phase II. This phase would be implemented between 2026 and 2030 and would provide approximately 1.8 acres of developable land. In this scenario, Phase III would then be that portion of the channel south of the Unit 8 intakes, encompassing the Unit 1 and 2 intakes and extending south to the 2nd Street bridge. This phase would still be

implemented starting in 2030, after Units 1 and 2 are removed from service in compliance with the OTC Policy. It would provide approximately 4.6 acres of developable land.

For the purposes of environmental analysis for the proposed project, this IS/MND has considered the implementation of the project in two phases since the availability of the Unit 8 intakes prior to 2029 cannot be assumed at this time. Furthermore, the two-phase scenario is considered the more conservative approach in relation to the potential for the project to create environmental impacts (i.e., it would be more likely to create potentially significant impacts). This is based on the larger scope of the construction effort involved in the Phase II effort encompassing the approximately 1,650 feet of the Haynes Intake Channel south of the Unit 5 intake structure. This relatively larger scope would be expected to have a higher potential to adversely influence factors, such as air quality, related to project construction.

The proposed project would itself create no post-construction operational impacts. That is, it would only provide vacant land, which may be used in the future for the development of energy storage and/or renewable energy facilities at Haynes. As discussed above, the plans for such facilities have yet to be prepared, and any such future projects would be subject to separate environmental reviews and approvals. Therefore, the following section (as well as the remainder of the IS/MND) focuses on the construction phase of the project.

2.4 Project Construction

Phase I of the proposed project is scheduled to begin in late 2021 and be completed in 2023, a period of approximately 15 months. Phase II of the proposed project is scheduled to begin in 2030 and be completed in 2032, a period of approximately 30 months. Construction activities would normally occur Monday through Friday, generally beginning no earlier than 7:00 a.m. and ending by 5:00 p.m. Personnel may arrive on site prior to 7:00 a.m. to conduct safety meetings and other pre-construction planning activities, but no noise-generating construction activities would occur after 5:00 p.m., except under unusual circumstances. Construction on Saturdays may also occasionally be necessary but is not generally anticipated. On Saturdays, noise-generating construction would not begin before 9:00 a.m. and would end by 5:00 p.m. No construction work would occur on Sundays or federal holidays, except under emergency circumstances. Temporary trailers (for construction management activities) and temporary laydown areas and storage facilities for construction materials and equipment would be located within the existing Haynes property boundaries. Vehicular access to the site during construction would be provided at the gate located in the southeast corner of Haynes, on 2nd Street.

The anticipated on-site workforce for Phase I is estimated to be about 30 personnel throughout construction, and for Phase II about 60 personnel throughout construction. The two phases of the project would differ in scale but would be similar in terms of the types and sequencing of construction processes required to implement the infilling of the Haynes Intake Channel. Each phase would consist of the primary tasks described in Sections 2.4.1 through 2.4.3.

2.4.1 Site Preparation

Several tasks must be completed to prepare the Haynes Intake Channel for draining and filling. These include the relocation of utilities located within the project site that are still required to support existing functions and the removal of inoperative utilities and fuel lines on bridges spanning the Haynes Intake Channel. A cofferdam would be constructed across the Haynes Intake Channel at the appropriate location to isolate the portion of the channel under construction from the upstream portion. The cofferdam would allow the Havnes Intake Channel to be pumped dry before additional demolition, over-excavation, and filling activity begins and to retain the water on the upstream side of the cofferdam during the filling of the area on the downstream side of the cofferdam. The cofferdam would consist of interlocking steel sheet piles that would be set into the channel bottom with a press-in driver, which would avoid the noise and vibration associated with percussion or vibratory drivers. For Phase I, the cofferdam would be located north of the northernmost Unit 8 intake structure. For Phase II, the cofferdam would be located at the 2nd Street bridge. During the Phase II construction, it is also possible that intermediary cofferdams may be installed to execute the work in a staged manner in smaller segments. In the case of the Phase I cofferdam and any intermediary Phase II cofferdams, after infilling has been completed on both sides of the cofferdam, it would be removed by extracting the sheet piles with the press-in driver. The cofferdam installed at the 2nd Street bridge during Phase II would remain after the infilling is completed to provide a division between the water in the channel upstream of the cofferdam and the fill material behind the cofferdam.

Following the installation of each cofferdam and prior to Haynes Intake Channel dewatering (see below), marine wildlife would be safely relocated from the project side of the cofferdam (i.e., that portion to be filled) to the portion of the Haynes Intake Channel on the opposite side of the cofferdam. Wildlife relocation activities would be performed by qualified biologists under an approved scientific collecting permit from the California Department of Fish and Wildlife (CDFW). Methods used for capturing wildlife may include seining, dip-netting, or other approved nets or capture methods. While sea turtles are not anticipated within the Haynes Intake Channel, if they are observed within the channel, rescue attempts would be performed through coordination with and authorization from the National Marine Fisheries Service (NMFS). Visual estimates of species and numbers relocated, as well as moribund individuals, would be submitted to CDFW as part of the scientific collecting permit reporting.

At the outset of the site preparation task for Phase II, a temporary solid barrier would be erected along the top of the embankment on the east side of the Haynes Intake Channel to lessen noise from construction at the Island Village residential community. The barrier would be a minimum of 8 feet in height and a minimum of 250 feet in length, starting at the south edge of the 2nd Street bridge. The barrier would have a surface density of at least 4 pounds per square foot, and would be free of openings, with the exception of expansion-joint gaps and other necessary structural features. This barrier would be removed at the completion of the project.

The site preparation task is estimated to take approximately 1 month for Phase I and 2 months for Phase II. During this task, the number of daily truck trips would be relatively small. These trips would be primarily for hauling demolition

debris or delivering sheet piles and other materials. On-site heavy equipment used during this task would include excavators, bulldozers, backhoe loaders, fuel/lube trucks, and water trucks, as indicated for each phase in Table 1.

		Equipmen	Equipment Quantity	
Task	Equipment Type	Phase I	Phase II	
Site preparation	Excavator	2	3	
	Bulldozer	1	2	
	Backhoe loader	2	4	
	Fuel/lube truck	1	2	
	Water truck	2	4	
Dewatering	Excavator	1	2	
	Backhoe loader	1	2	
	Pump	2	4	
	Generator	2	4	
	Fuel/lube truck	1	2	
	Water truck	1	2	
Channel infill	Excavator	1	2	
	Grader	1	2	
	Bulldozer	2	4	
	Backhoe loader	2	4	
	Vibratory/sheepsfoot drum roller	2	4	
	Fuel/lube truck	1	1	
	Water truck	2	2	

Table 1 Construction Equipment

2.4.2 Dewatering

After the cofferdam is installed, the process of dewatering the Haynes Intake Channel would begin. This would entail both the removal of the water in the northern side of the Haynes Intake Channel with protective measures for aquatic organisms implemented (Best Management Practice [BMP] BIO-1; see Section 2.5, Best Management Practices) and the removal of groundwater to prevent intrusion into the channel during the infilling process.

The groundwater would be removed by forming a perimeter around the portion of the Haynes Intake Channel to be filled with a series of wells. This may be achieved with wellpoints, which are small-diameter tubes (approximately 2 inches) that work via suction created by a pump or pumps at the surface, but that are limited in the depth at which they can operate and may require staging at sequentially lower elevations to remove groundwater to a sufficient depth below the channel. The dewatering may also be achieved with deep wells, which are larger-diameter pipes (approximately 6 to 12 inches, depending on the pump size required) that can operate at greater depths but require a small submersible pump in each well. Groundwater, which may be encountered at 4 feet below grade at Haynes, would be removed until

it is more than 5 feet below the bottom of the Haynes Intake Channel to allow for over-excavation of the channel (as described in Section 2.4.3, Channel Infill). After the initial dewatering, the dewatering system would need to be operated as necessary to prevent groundwater intrusion until a stable base above the groundwater table is established in the Haynes Intake Channel (as described in Section 2.4.3). The groundwater would be pumped to the surface and passed through a settlement tank or tanks to remove suspended solids and then routed to a temporary holding tank, where the water would be tested for quality before being discharged. The fate of the water would be determined by the results of the water quality testing. Depending on the testing results, the water would be conveyed to the Haynes Intake Channel south of the cofferdam, to the existing Haynes wastewater handling system, or off site to a licensed disposal facility.

The water within the Haynes Intake Channel north of the cofferdam (i.e., within the project site) would generally be of the same quality as the water in the channel south of the cofferdam. However, to avoid turbidity and/or sedimentation in the Haynes Intake Channel south of the cofferdam, a filtration and/or settling system would be employed. In addition, aquatic organisms would be captured and relocated prior to pumping, and a qualified biologist would monitor pumping activities and facilitate additional relocation that may be needed as the water level is lowered. Screens would be installed on the pump intake lines to prevent aquatic organisms from entering the pump.

Once the channel has been dewatered, structures within the channel, such as the inactivated OTC intakes would be demolished and removed. The initial dewatering task is estimated to take approximately 2 months for Phase I and 4 months for Phase II. During this task, the number of daily truck trips (primarily for delivering the dewatering equipment) would be relatively small. On-site heavy equipment used during this task would include excavators, backhoe loaders, pumps, generators, fuel/lube trucks, and water trucks, as indicated for each phase in Table 1.

2.4.3 Channel Infill

Once the Haynes Intake Channel is drained, the process of infiling the channel would proceed in several stages. First, an earthen ramp or ramps would be constructed along the edge of the channel to allow equipment and trucks to enter and exit. Based on preliminary geotechnical investigations, it has been recommended that the bottom of the channel be over-excavated to provide a stable load-bearing foundation for future facility development on the reclaimed land. This would entail removing existing soil to a depth of approximately 5 feet below the current channel bottom across an estimated 100-foot-wide area at the bottom of the channel. This excavated material would be tested for potential contamination, which, depending on the results, would determine what classification of landfill (i.e., those authorized or not authorized to accept hazardous waste) the material would be transported to for disposal. The material may be loaded directly into trucks or temporarily stockpiled on site before loading. The volume of this excavated material for each phase is indicated in Table 2. The material is excavated, it expands due to the increase in void spaces, and its volume is measured in loose cubic yards (LCY). The expansion rate is estimated at approximately 30%. Therefore, the volume of the exported material would be greater than the volume of the over-excavated portion of the Haynes Intake Channel. The number of truck trips required to account for the material expansion is indicated for each phase in Table 2.

	Unit	Phase I	Phase II		
Over-Excavation					
Excavation volume	BCY	8,800	31,000		
Expansion factor	CY	1.3	1.3		
Export volume	LCY	11,440	40,300		
Truck round-trips (16 CY capacity)	No.	715	2,520		
Duration (20 workdays/month)	WD	30	60		
Daily truck round-trips	No.	24	42		
Cha	nnel Infill				
Channel volume (including over-excavation volume)	CY	61,300	233,000		
Expansion factor	CY	1.3	1.3		
Import volume	LCY	79,690	302,900		
Truck round-trips (16 CY capacity)	No.	4,980	18,930		
Duration (20 workdays/month)	WD	210	420		
Daily truck round-trips	No.	24	45		

Table 2 Import/Export Volumes and Truck Trips

Notes: BCY = bank cubic yard; CY = cubic yard; LCY = loose cubic yard; No. = number; WD = workday.

After over-excavation, the next stage of the Haynes Intake Channel infilling process is to provide a structurally stable base. This would likely be accomplished by using coarse aggregate material, such as crushed stone. Depending on the final geotechnical analysis conducted for the proposed project, a geotextile underlayment may also be installed to provide separation and reinforcement, and thus greater structural stability, for the aggregate base. The aggregate material would be imported in trucks, which would enter the Haynes Intake Channel via the ramp or ramps and dump the material, which would then be spread evenly by graders and/or dozers in layers usually less than 1 foot thick. The individual layers, or lifts, would then be compacted using a vibrating drum roller to achieve an appropriate density that would limit future settlement. The aggregate base course would be built in this manner in successive lifts until it is level with the top of the groundwater table.

After the aggregate base material is laid, structural earthen fill would be imported by truck and placed in a similar manner in relatively shallow lifts and compacted using a sheepsfoot drum roller. This process would continue until the compacted fill material is level with the top of bank of the Haynes Intake Channel.

Because the infill material, whether aggregate or structural fill, requires compaction once it is placed in the channel, the volume of the imported material (measured in LCY) would be greater than the volume of the Haynes Intake Channel itself. The volume of the imported material and the number of truck trips required to account for the material compaction are indicated for each phase in Table 2.

The channel infill task is estimated to take approximately 12 months for Phase I and 24 months for Phase II. On-site heavy equipment used during this task would include excavators, graders, dozers, backhoe loaders, vibratory drum rollers, sheepsfoot drum roller, fuel/lube trucks, and water trucks, as indicated for each phase in Table 1.

After the Haynes Intake Channel infilling is complete, the dewatering wells and equipment would be removed and the well holes backfilled. As mentioned above, when two successive areas in the Haynes Intake Channel have been filled, the cofferdam would be removed by extracting the sheet piles.

2.5 Best Management Practices

The following BMPs would be employed during construction of the proposed project to help minimize or eliminate potential impacts to the environment. BMPs are distinguished from mitigation measures because they are required by law, regulation, or policy or are ongoing, regularly occurring professional practices not unique to the circumstances of the proposed project.

LADWP would implement the following BMPs as part of the project:

- **BMP-BIO-1** Work Limit Delineation and Best Management Practices. Prior to commencement of the proposed project, limits of work and staging areas will be established and clearly delineated. All work and associated construction materials/equipment will be confined to these designated areas. No sediment, trash, discharge, or other materials will leave the work limits or associated staging areas and enter the surrounding terrestrial or sensitive marine environment outside the project site. Best management practices and compliance with stormwater pollution prevention plan requirements will be implemented.
- **BMP-HYD-1** Construction Dewatering. A dewatering plan will be prepared prior to beginning work and implemented during seawater and potential groundwater dewatering. The dewatering plan will be designed and implemented such that discharges will (1) meet water quality effluent limitations specified in the Regional Water Quality Control Board (RWQCB) Clean Water Act (CWA) Section 401 Water Quality Certification Order for the project (to be obtained) and/or the National Pollutant Discharge Elimination System (NPDES) dewatering permit (Order No. R4-2013-0095, General NPDES Permit No. CAG994004), as appropriate, and (2) minimize sedimentation from the construction in the downstream channel waters. Examples of dewatering design may include the following:
 - Where dewatering pumps are required, intakes will be screened with less-than-5-millimeter mesh screening to prevent aquatic organisms from entering the pump. In addition, a filtration/settling system will be included to reduce downstream turbidity (i.e., filter fabric, turbidity curtain). The selection of an appropriate system will be based on the actual rate of discharge at time of construction and requirements identified in the In-Water Work or

Diversions section of the project CWA Section 401 Water Quality Certification Order (to be obtained).

- Sediment controls will be provided to remove sediments generated during the dewatering activities.
- Discharges to waters shall conform to the water quality standards identified in the project CWA Section 401 Water Quality Certification Order (to be obtained).
- Pumped water will be discharged in conformance with all applicable laws and permit requirements.
- **BMP-HYD-2** Construction General Permit. A National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Water Quality Order No. 2009-0009-DWQ, NPDES Permit No. CAS000002, hereinafter identified as the Construction General Permit (CGP), will be obtained by LADWP. This statewide CGP is applicable for projects greater than 1 acre. A Qualified Stormwater Developer (QSD) will develop the stormwater pollution prevention plan (SWPPP) and a Qualified Stormwater Practitioner (QSP) will implement best management practices (BMPs) as delineated in the SWPPP. The Notice of Intent will be uploaded onto the state's (Storm Water Multiple Applications and Report Tracking System) SMARTS database. The CGP BMPs will minimize and/or reduce any pollutants that have the potential to discharge into the stormwater runoff from the construction site. Examples of BMPs may include straw wattles, catch basin inserts, and sandbags, as well as designated parking areas with BMPs to prevent the runoff of oil and grease, designated portable chemical toilet sites, and laydown areas.
- **BMP-HYD-3** Erosion Control. The Haynes Intake Channel infill sediments will be compacted at the surface to 95% relative compaction to prevent erosive scour and sedimentation of downstream drainages during high-intensity rainfall events. The compacted surface will be graded such that stormwater runoff will occur as uniform sheetflow that drains toward on-site drainage facilities, which in turn will flow toward off-site storm drains. In the event that erosive channeling inadvertently occurs during precipitation events, such areas of scour and channeling will be repaired to avoid additional scour and erosive downcutting.
- **BMP-HYD-4** Flood Control. The project will include drainage facilities designed such that off-site post-storm runoff rates will be less than or equal to existing conditions. In accordance with the Los Angeles County Department of Public Works Hydrology Manual, the design will meet the Urban Flood level of protection, which is defined as runoff from a 25-year frequency storm falling on a saturated watershed.
- **BMP-NOI-1 Pile Drive.** A press-in driver (Giken Silent Piler or equivalent) shall be employed to install the sheet piles for the cofferdams in the Haynes Intake Channel.

- **BMP-NOI-2** Noise Monitoring. Sound monitoring equipment shall be installed at locations along the perimeter of Haynes across from sensitive uses (i.e., Leisure World and Island Village) and shall be left in place during the duration of construction activities. The monitoring equipment shall take 1-hour L_{eq} dBA measurements continuously throughout the day during the duration of project construction. The noise monitoring data shall be used to detect excessive noise issues that result from construction activity.
- **BMP-NOI-3 Public Liaison.** A public liaison shall be appointed to be responsible for addressing public concerns about excessive noise created by construction activities, including determining the cause of the noise and implementing actions to avoid or minimize further incidents.
- **BMP-NOI-4** Noise-Generating Activity Hourly Limits. Other than to address emergency situations, no noisegenerating construction activities shall be conducted before 7:00 a.m. or after 7:00 p.m. on weekdays, or before 9:00 a.m. or after 6:00 p.m. on Saturdays. This shall include truck deliveries and haul trips. No noise-generating activities shall occur on Sundays or federal holidays.

2.6 Discretionary Approvals Required for the Project

The following discretionary permits and approvals may be required for the proposed project:

Federal

• Rivers and Harbors Act Section 10/CWA Section 404 permit issued by the U.S. Army Corps of Engineers (USACE)

State

- CWA Section 401 Water Quality Certification issued by the Regional Water Quality Control Board (RWQCB)
- California Coastal Act Coastal Development Permit issued by the California Coastal Commission (CCC)
- Groundwater Dewatering Permit, under Order No. R4-2013-0095 and General NPDES Permit No. CAG994004 with the RWQCB, if groundwater is encountered
- CGP Order 2009-0009-DWQ coverage with the RWQCB
- Construction SWPPP

Local

- City of Los Angeles Department of Water and Power
 - o Adoption of the MND by the Board of Water and Power Commissioners
 - Approval of the proposed project by the Board of Water and Power Commissioners

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SOURCE: ESRI World Imagery



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FIGURE 4 Project Phasing Haynes Generating Station Intake Channel Infill

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3 INITIAL STUDY CHECKLIST

The following discussion of potential environmental effects was completed in accordance with Section 15063(d)(3) of the CEQA Guidelines (2019) to determine if the proposed project may have a significant effect on the environment.

1. **Project title:**

Haynes Generating Station Intake Channel Infill Project

2. Lead agency name and address:

Los Angeles Department of Water and Power Environmental Affairs 111 North Hope Street, Room 1044 Los Angeles, California 90012

3. Contact person and phone number:

Jane Hauptman Environmental Planning and Assessment Los Angeles Department of Water and Power 213-367-0968

4. **Project location:**

The project site is located within the Haynes Generating Station (Haynes) at 6801 East 2nd Street in the City of Long Beach, California. Haynes is located immediately inland from the Pacific Ocean, immediately south of SR-22 (Garden Grove Freeway) and approximately 1 mile east of SR-1 (Pacific Coast Highway).

Although a portion of Haynes is located in the City of Seal Beach, proposed project activities would be limited to the southern portion of the Haynes property, which is located entirely within the City of Long Beach.

5. Project sponsor's name and address:

Los Angeles Department of Water and Power 111 North Hope Street, Room 1044 Los Angeles, California 90012

6. City Council District:

Long Beach City Council District 3

7. General plan designation:

Industrial/Energy/Storage

8. Zoning:

Planned Development District 1 (PD-1)

9. Description of project:

Refer to Chapter 2 of this IS/MND.

10. Surrounding land uses and setting:

Refer to Section 1.3 of this IS/MND.

11. Other public agencies whose approval is required:

- USACE, Rivers and Harbors Act Section 10/CWA Section 404 Permit
- CCC, California Coastal Act Coastal Development Permit
- South Coast Air Quality Management District (SCAQMD), Fugitive Dust Abatement Plan Approval (Rule 403)
- SWRCB and Los Angeles RWQCB, CWA Section 401 Water Quality Certification, General Storm Water Permit Associated with Construction Activities, Groundwater Dewatering Permit, under Order No. R4-2013-0095 and General NPDES Permit No. CAG994004
- 13. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

Refer to Section 3.18, Tribal Cultural Resources, of this IS/MND.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact," as indicated by the checklists on the following pages.

Aesthetics	Agriculture and Forestry Resources	Air Quality
Biological Resources	Cultural Resources	Energy
Geology and Soils	Greenhouse Gas Emissions	Hazards and Hazardous Materials
Hydrology and Water Quality	Land Use and Planning	Mineral Resources
Noise	Population and Housing	Public Services
Recreation	Transportation	Tribal Cultural Resources
Utilities and Service Systems	Wildfire	Mandatory Findings of Significance

DETERMINATION

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Madia & Parken

Signature

12/8/2020

Date

EVALUATION OF ENVIRONMENTAL IMPACTS

- 1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an environmental impact report is required.
- 4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).
- 5. Earlier analyses may be used where, pursuant to the tiering, program environmental impact report, or other CEQA process, an effect has been adequately analyzed in an earlier environmental impact report or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a. Earlier Analysis Used. Identify and state where they are available for review.
 - b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

- 9. The explanation of each issue should identify:
 - a. The significance criteria or threshold, if any, used to evaluate each question; and
 - b. The mitigation measure identified, if any, to reduce the impact to less than significance.

3.1 Aesthetics

	Except as provided in Public Resources Code Section 21099, would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Have a substantial adverse effect on a scenic vista?			\square	
b)	Substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				\boxtimes
c)	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?				
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				

a) Would the project have a substantial adverse effect on a scenic vista?

Less-Than-Significant Impact. The proposed project would be located within the interior of the existing Haynes property, a fully developed industrial complex that began operations in the early 1960s and consists of large generator units, fuel tanks, and other facilities related to electrical power generation. The City of Long Beach (City) General Plan Draft Urban Design Element (2018a) identifies important visual resources within the City. Important vistas in the vicinity of the project site include views to the Pacific Ocean, downtown Long Beach, the marinas, and to the distant San Gabriel and Santa Ana Mountains to the northeast, as well as vistas to the southwest from high points, such as near Signal Hill (City of Long Beach 2018a).

The Scenic Routes Element of the General Plan that the City adopted in 1975 also identifies scenic assets within the City, such as the Pacific Ocean, port facilities, oil islands, Bixby Park, Bluff Park, and flood control channels. However, the Scenic Routes Element does not identify any designated and or protected scenic vistas (City of Long Beach 1975). The project site is located within the SEASP (formerly Southeast Area Development and

Improvement Plan [SEADIP]). Figure 4-2 of the SEASP establishes view corridors along 2nd Street, Pacific Coast Highway, and Studebaker Road, which are defined as "roadway areas that provide special distinguishing features for the SEASP area" (City of Long Beach 2017a). The SEASP identifies view corridors as having views of wetlands resources, entry views from elevated bridges into the area, and the views created by the built environment that create a sense of arrival into the SEASP, particularly the proposed mixed-use activity center located at the heart of the SEASP (2nd Street and Pacific Coast Highway) (City of Long Beach 2017a). The view corridors closest to the project site include Studebaker Road (approximately 0.5 miles west of the project site) and 2nd Street (immediately south of the project site). Additionally, a "gateway" is identified at the intersection of 2nd Street and Studebaker Road. Further, Figure 4-3 of the SEASP identifies public viewsheds and view opportunities to water and wetlands resources (City of Long Beach 2017a).

The project site is located on East 2nd Street in the southeastern portion of the City and sits at approximately 3 feet above mean sea level. Therefore, the project site is not located in an elevated part of the City that would provide views to scenic vistas. The project would not contribute to increased view blockage as the project consists of filling 2,150 feet of the Haynes Intake Channel but does not include the construction of additional facilities. The Haynes Intake Channel is not visible from public vantage points, with the exception of views into the southern portion of the channel from East 2nd Street. The City's General Plan indicates that views "along rivers and channels" could be considered to have scenic quality (City of Long Beach 2017b). The Haynes Intake Channel is located north of East 2nd Street and curves to the northeast into the Haynes property, precluding views to the northern portion of the channel from East 2nd Street. Therefore, Phase I of the project would not be visible from the view corridor and would not obstruct views from East 2nd Street. Phase II includes filling the portion of the Haynes Intake Channel mediately north of East 2nd Street and would be visible from the roadway. However, as designated in the SEASP, the view corridor from East 2nd Street is focused toward views of the Los Cerritos Wetlands, the San Gabriel River, and Alamitos Bay. As important views are focused on these features to the southwest, views of the Haynes Intake Channel are not considered particularly meaningful or striking.

During project construction, construction equipment may be visible to motorists traveling on East 2nd Street. However, views of construction equipment would be temporary and would not obstruct views to a designated scenic vista. Because the project does not involve the development of new features within the project area, it would not lead to obstruction or adverse impacts to scenic vistas within the City. Therefore, the project would result in less-than-significant impacts to scenic vistas.

b) Would the project substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. There are no officially designated state scenic highways near the proposed project site. SR-1 (Pacific Coast Highway) is an eligible (although not officially designated) state scenic highway (Caltrans 2018). It is located approximately 1 mile west of the project site. There are no other scenic highways in the vicinity of

the project site. The Haynes Intake Channel is located within an existing fully developed industrial site and, from viewpoints along SR-1, would be either screened from view or not substantially noticeable given the existing large generator units and other facilities within Haynes and intervening development. The proposed project would not require removal of, or impact views of, any scenic resources such as trees, rock outcroppings, or historic buildings within a state scenic highway. Therefore, the proposed project would result in no impact to scenic resources within a state scenic highway.

c) In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

No Impact. The project site is located in an urbanized area of the City of Long Beach. The project site and immediately surrounding areas consist of industrial uses. The Haynes property has a general plan land use designation of Industrial/Energy/Storage and a zoning designation of Planned Development District 1 (PD-1) and is located within the SEASP (formerly SEADIP) (City of Long Beach 2017b, 2018b). The SEASP establishes view corridors in the City that provide views of special distinguishing features in the SEASP area, such as wetlands resources and entry views from elevated bridges into the area. As previously discussed in Section 3.1(a), the project would not result in adverse impacts to established view corridors or visual resources in the City. The project would not involve the construction of additional features on the project site, and the existing industrial use of the site is consistent with the PD-1 zoning designation of the site. Therefore, the project would not conflict with applicable zoning or other regulations governing scenic quality. The project would result in no impact.

d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

No Impact. Project construction is not anticipated to occur at night; therefore, no new sources of substantial light or glare would be added that would adversely affect daytime or nighttime views in the area during construction. Lighting already exists on site to provide for the safety of workers who are at the facility at night and to provide for plant security. The project does not involve the development of new features or new lighting on site. Therefore, no new sources of light or glare would be added to the project site, and no change in lighting or glare is anticipated as a result of the proposed project. Therefore, there would be no impact.

References

Caltrans (California Department of Transportation). 2018. Scenic Highways. Accessed April 2019. http://www.dot.ca.gov/design/lap/livability/scenic-highways/.

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- City of Long Beach. 2017b. "Land Use Element." *City of Long Beach General Plan.* Accessed April 2019. http://www.longbeach.gov/globalassets/city-news/media-library/documents/lue/november-2017/draft_longbeachlanduseelement_11-2017_sml.
- City of Long Beach. 2018a. "Urban Design Element." *City of Long Beach General Plan.* Long Beach Development Services. March 6. 2018.
- City of Long Beach. 2018b. Zoning Map. Accessed April 2019. http://www.lbds.info/civica/filebank/blobdload.asp?BlobID=7265.

3.2 Agriculture and Forestry Resources

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
In determining whether impacts to agricultural resources the California Agricultural Land Evaluation and Site Asse Conservation as an optional model to use in assessing in impacts to forest resources, including timberland, are sig information compiled by the California Department of Fo land, including the Forest and Range Assessment Project measurement methodology provided in Forest Protocols	are significant essment Model mpacts on agric prificant environ restry and Fire ct and the Fores adopted by the	environmental effe (1997) prepared b culture and farmlar mental effects, lea Protection regardin st Legacy Assessr California Air Res	ects, lead agencies y the California De ad. In determining ad agencies may r ng the state's inve nent project; and f sources Board.	s may refer to epartment of whether refer to ntory of forest forest carbon
 a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? 				
 b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? 				\boxtimes

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION HAYNES GENERATING STATION INTAKE CHANNEL INFILL PROJECT

	Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				
d)	Result in the loss of forest land or conversion of forest land to non-forest use?				\boxtimes
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				

a) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. The proposed project would be located within an existing fully developed industrial site that does not meet the definition of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as shown on maps pursuant to the California Department of Conservation's Farmland Mapping and Monitoring Program (DOC 2016). Further, surrounding land uses do not include agricultural uses. No impact would occur.

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The proposed project would be located within the existing Haynes property, which is industrially developed and zoned PD-1 (Planned Development) (City of Long Beach 2018). Based on the existing and historical uses at the Haynes property, the proposed project site is not subject to a Williamson Act contract. Therefore, there would be no conflict with zoning for agricultural uses or a Williamson Act contract. No impact would occur.

c) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Impact. The proposed project would be located within the existing Haynes property, which is industrially developed and zoned PD-1. The Haynes property is not forest land or timberland and is not zoned for

timberland production. Therefore, there would be no conflict with zoning for forest land or timber production. No impact would occur.

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. The proposed project would be located within the existing Haynes property, which is industrially developed and zoned PD-1. The Haynes property is not forest land that would be converted to non-forest use. Further, surrounding land uses do not include forest land. Therefore, the project would not result in the loss or conversion of forest land. No impact would occur.

e) Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact. The proposed project would be located within the existing Haynes property, which is industrially developed and zoned PD-1. Surrounding land uses do not include agricultural uses, forest land, or timberland; therefore, the proposed project would not involve other changes to the environment that would result in the conversion of farmland to non-agricultural use or forest land to non-forest use, and no impact would occur.

References

- City of Long Beach. 2018. Zoning Maps. Accessed January 2019. ttp://www.longbeach.gov/lbds/planning/advance/maps/zoning/.
- DOC (California Department of Conservation). 2016. "Los Angeles County Important Farmland 2014." Farmland Mapping and Monitoring Program. April 2016. ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2014/ los14.pdf.

3.3 Air Quality

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management district or air control district may be relied upon to make the following determinations.				
a) Conflict with or obstruct implementation of the applicable air quality plan?			\boxtimes	

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION HAYNES GENERATING STATION INTAKE CHANNEL INFILL PROJECT

	Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?				
c)	Expose sensitive receptors to substantial pollutant concentrations?			\square	
d)	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?				

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

Less-Than-Significant Impact. The project site is located within the South Coast Air Basin (SCAB), which includes the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County, and is within the jurisdictional boundaries of SCAQMD.

SCAQMD administers the Air Quality Management Plan (AQMP) for the SCAB, which is a comprehensive document outlining an air pollution control program for attaining all California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS). The most recent adopted AQMP is the 2016 AQMP (SCAQMD 2017), which was adopted by the SCAQMD Governing Board in March 2017. The 2016 AQMP represents a new approach, focusing on available, proven, and cost-effective alternatives to traditional strategies while seeking to achieve multiple goals in partnership with other entities promoting reductions in GHGs and toxic risk, as well as efficiencies in energy use, transportation, and goods movement (SCAQMD 2017).

The purpose of a consistency finding is to determine whether a project is inconsistent with the assumptions and objectives of the regional air quality plans and thus would interfere with the region's ability to comply with federal and state air quality standards. SCAQMD has established criteria for determining consistency with the currently applicable AQMP in Chapter 12, Sections 12.2 and 12.3, in the SCAQMD CEQA Air Quality Handbook. The criteria are as follows (SCAQMD 1993):

• Whether the project would result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the ambient air quality standards or interim emission reductions in the AQMP.

• Whether the project would exceed the assumptions in the AQMP or increments based on the year of project buildout and phase.

To address the first criterion regarding the project's potential to result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the ambient air quality standards or interim emission reductions in the AQMP, project-generated criteria air pollutant emissions were estimated and analyzed for significance and are addressed in Section 3.3(b). Detailed results of this analysis are included in Appendix A. As presented in Section 3.3(b), project construction would not generate criteria air pollutant emissions that would exceed the SCAQMD thresholds, and the project is not anticipated to generate operational criteria air pollutant emissions.

The second criterion regarding the project's potential to exceed the assumptions in the AQMP or increments based on the year of project buildout and phase is primarily assessed by determining consistency between the project's land use designations and potential to generate population growth. In general, projects are considered consistent with and therefore not conflicting with or obstructing implementation of the AQMP if the growth in socioeconomic factors is consistent with the underlying regional plans used to develop the AQMP (per Consistency Criterion No. 2 of the SCAQMD CEQA Air Quality Handbook). The SCAQMD primarily uses demographic growth forecasts for various socioeconomic categories (e.g., population, housing, employment by industry) developed by the Southern California Association of Governments (SCAG) for its Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) (SCAG 2016), which is based on general plans for cities and counties in the SCAB, for the development of the AQMP emissions inventory (SCAQMD 2017).¹ The SCAG 2016 RTP/SCS, and the associated Regional Growth Forecast, are generally consistent with the local plans; therefore, the 2016 AQMP is generally consistent with local government plans.

As discussed in Chapter 2, Project Description, of this IS/MND, the project would occur entirely within the existing footprint of Haynes. Filling in the Haynes Intake Channel would not change or affect the existing zoning or land use designations in the project area. Accordingly, the project is consistent with the SCAG RTP/SCS forecasts used in the SCAQMD AQMP development.

¹ Information necessary to produce the emission inventory for the SCAB is obtained from SCAQMD and other governmental agencies, including the California Air Resources Board (CARB), the California Department of Transportation (Caltrans), and SCAG. Each of these agencies is responsible for collecting data (e.g., industry growth factors, socioeconomic projections, travel activity levels, emission factors, emission speciation profile, and emissions) and developing methodologies (e.g., model and demographic forecast improvements) required to generate a comprehensive emission inventory. SCAG incorporates these data into its travel demand model for estimating/projecting vehicle miles traveled and driving speeds. SCAG's socioeconomic and transportation activities projections in their 2016 RTP/SCS are integrated in the 2016 AQMP (SCAQMD 2017).

In summary, based on the considerations presented for the two criteria, impacts relating to the project's potential to conflict with or obstruct implementation of the applicable AQMP would be less than significant.

b) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Less-Than-Significant Impact. Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and SCAQMD develops and implements plans for future attainment of ambient air quality standards. Based on these considerations, project-level thresholds of significance for criteria pollutants are used in the determination of whether a project's individual emissions would have a cumulatively considerable contribution on air quality. If a project's emissions would exceed the SCAQMD significance thresholds, it would be considered to have a cumulatively considerable contribution. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant (SCAQMD 2003).

A quantitative analysis was conducted to determine whether proposed construction activities would result in a cumulatively considerable net increase in emissions of criteria air pollutants for which the SCAB is designated as nonattainment under the NAAQS or CAAQS. Criteria air pollutants include ozone (O_3) , nitrogen dioxide (NO_2) , carbon monoxide (CO), sulfur dioxide (SO_2) , coarse particulate matter (particulate matter with an aerodynamic diameter less than or equal to 10 microns; PM₁₀), fine particulate matter (particulate matter with an aerodynamic diameter less than or equal to 2.5 microns; PM_{2.5}), and lead. Pollutants that are evaluated herein include volatile organic compounds (VOCs) and oxides of nitrogen (NO_x), which are important because they are precursors to O_3 , as well as CO, sulfur oxides (SO_x), PM₁₀, and PM_{2.5}.

Regarding NAAQS and CAAQS attainment status,² the SCAB is designated as a nonattainment area for national and California O₃ and PM_{2.5} standards (CARB 2017; EPA 2017). The SCAB is designated as a nonattainment area for California PM₁₀ standards; however, it is designated as an attainment area for national PM₁₀ standards. The SCAB nonattainment status of O₃, PM₁₀, and PM_{2.5} standards is the result of cumulative emissions from various sources of air pollutants and their precursors within the SCAB, including motor vehicles, off-road equipment, and commercial and industrial facilities. The SCAB is designated as an attainment area for national and California NO₂, CO, and SO₂ standards. Although the SCAB has been designated as

An area is designated as in attainment when it is in compliance with the NAAQS and/or the CAAQS. The NAAQS and CAAQS are set by the U.S. Environmental Protection Agency and CARB, respectively, for the maximum level of a given air pollutant that can exist in the outdoor air without unacceptable effects on human health or the public welfare. Attainment = meets the standards; attainment/maintenance = achieves the standards after a nonattainment designation; nonattainment = does not meet the standards.

partial nonattainment (Los Angeles County) for the federal rolling 3-month average lead standard, it is designated attainment for the state lead standard.³

Appendix G of the CEQA Guidelines indicates that, where available, the significance criteria established by the applicable air district may be relied on to determine whether a project would have a significant impact on air quality. The SCAQMD has established Air Quality Significance Thresholds, as revised in March 2015, that set forth quantitative emissions significance thresholds below which a project would not have a significant impact on ambient air quality (SCAQMD 2015). The quantitative air quality analysis provided herein applies the SCAQMD thresholds to determine the potential for the project to result in a significant impact under CEQA. The SCAQMD mass daily construction thresholds are as follows: 75 pounds per day for VOC, 100 pounds per day for NO_x, 550 pounds per day for CO, 150 pounds per day for SO_x, 150 pounds per day for PM₁₀, and 55 pounds per day for PM_{2.5}.

The following discussion quantitatively evaluates project-generated construction impacts and qualitatively evaluates operational impacts that would result from implementation of the proposed project.

Construction Emissions

Proposed construction activities would result in the temporary addition of pollutants to the local airshed caused by on-site sources (i.e., off-road construction equipment and soil disturbance) and off-site sources (i.e., on-road haul trucks, delivery trucks, and worker vehicle trips). Construction emissions can vary substantially from day to day, depending on the level of activity; the specific type of operation; and, for dust, the prevailing weather conditions. Therefore, such emission levels can only be approximately estimated, with a corresponding uncertainty in precise ambient air quality impacts.

The California Emissions Estimator Model (CalEEMod) Version 2016.3.2 was used to estimate emissions for construction of the proposed project. CalEEMod is a statewide computer model developed in cooperation with air districts throughout the state to quantify criteria air pollutant emissions associated with construction activities from a variety of land use projects, such as residential, commercial, and industrial facilities. CalEEMod input parameters, including the land use type used to represent the project and size, construction schedule, and anticipated construction equipment utilization, were based on the information described in Section 2.4 (Project Construction) of this IS/MND and default model assumptions when project-specific data was not available.

For the purpose of conservatively estimating project emissions, it is assumed that Phase I of construction of the project would start in November 2021 and would last approximately 15 months and Phase II of

³ Re-designation of the lead NAAQS designation to attainment for the Los Angeles County portion of the SCAB is expected based on current monitoring data. The phase-out of leaded gasoline started in 1976. Since gasoline no longer contains lead, the project is not anticipated to result in impacts related to lead; therefore, it is not discussed in this analysis.

construction of the project would start in January 2030 and would last approximately 30 months.⁴ The construction phasing schedule and duration, vehicle trip assumptions, and construction equipment mix used for estimating the project-generated emissions are shown in Table 3.

Internal combustion engines used by construction equipment, trucks, and worker vehicles would result in emissions of VOCs, NO_x, CO, PM₁₀, and PM_{2.5}. PM₁₀ and PM_{2.5} emissions would also be generated by entrained dust, which results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil. It is anticipated that during Phase I grading, the project would require import of 79,690 CY of fill and export of 11,440 CY of material. During Phase II grading, it is anticipated that the project would require import of 302,900 CY of fill and export of 40,300 CY of material. The project would be required to comply with SCAQMD Rule 403 to control dust emissions during any dust-generating activities. Standard construction practices that would be employed to reduce fugitive dust emissions include watering of the active grading areas two times per day, with additional watering depending on weather conditions.

			One-	Way Vehicle	Trips	Equipment		
Construction Phase	Start Date	Finish Date	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Туре	Quantity	Usage Hours
Phase I: Site	11/01/2021	11/31/2021	60	6	0	Excavators	2	8
Preparation						Rubber-tired dozers	1	8
						Tractors/loaders/	2	8
						backhoes		
Phase I:	12/01/2021	01/31/2022	60	6	0	Excavators	1	8
Dewatering						Generator sets	1	8
						Pumps	2	8
						Tractors/loaders/	1	8
						backhoes		
Phase I:	02/01/2022	01/31/2023	60	6	11,390	Graders	1	8
Grading						Excavators	1	8
						Rubber-tired dozers	2	8

Table 3 Construction Scenario Assumptions

⁴ The analysis assumes construction start dates of November 2021 for Phase I and January 2030 for Phase II, which represent the earliest dates construction would initiate for each phase. Assuming the earliest start date for construction represents the worst-case scenario for criteria air pollutant and GHG emissions, because equipment and vehicle emission factors for later years would be slightly less due to more stringent standards for in-use off-road equipment and heavy-duty trucks, as well as fleet turnover replacing older equipment and vehicles in later years.

Table 3 Construction Scenario Assumptions

			One-	Way Vehicle	Trips	Equipment		
Construction Phase	Start Date	Finish Date	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Total Haul Truck Trips	Туре	Quantity	Usage Hours
						Drum rollers	2	8
						Tractors/loaders/ backhoes	2	8
Phase II: Site	01/01/2030	03/31/2030	120	6	0	Excavators	3	8
Preparation						Rubber-tired dozers	2	8
						Tractors/loaders/	4	8
						backhoes		
Phase II:	04/01/2030	0701/2030	120	6	0	Excavators	2	8
Dewatering						Generator sets	2	8
						Pumps	4	8
						Tractors/loaders/ backhoes	2	8
Phase II:	07/02/2030	09/30/2031	120	6	42,900	Graders	2	8
Grading						Rubber-tired dozers	4	8
						Excavators	1	8
						Drum rollers	4	8
						Tractors/loaders/ backhoes	4	8

Source: LADWP 2020. Notes: See Appendix A for details.

Estimated maximum daily construction criteria air pollutant emissions from all on-site and off-site emission sources are provided in Table 4.

Table 4 Estimated Maximum Daily Construction Emissions

	VOC	NO _x	CO	SO _x	PM ₁₀ ^a	PM _{2.5} ^a
Year			Pounds	per Day		
2021	2.18	19.85	21.77	0.04	4.03	2.38
2022	3.59	43.15	25.41	0.08	7.95	4.40
2023	3.05	34.55	23.93	0.08	13.88	5.66
2030	5.26	36.46	40.56	0.16	17.59	7.80
2031	5.23	36.33	40.43	0.16	14.56	7.06

	VOC	NOx	CO	SOx	PM ₁₀ ^a	PM _{2.5} ^a
Year			Pounds	per Day		
2032	5.21	36.19	40.31	0.16	16.12	7.44
Maximum daily emissions	5.26	43.15	40.56	0.16	17.59	7.80
SCAQMD threshold	75	100	550	150	150	55
Threshold exceeded?	No	No	No	No	No	No

Table 4 Estimated Maximum Daily Construction Emissions

Source: SCAQMD 2015.

Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; SCAQMD = South Coast Air Quality Management District. See Appendix A for detailed results.

^a These estimates reflect control of fugitive dust (watering two times daily) required by SCAQMD Rule 403 (SCAQMD 2005).

As shown in Table 4, daily construction emissions would not exceed the SCAQMD significance thresholds for VOCs, NO_x, CO, SO_x, PM₁₀, or PM_{2.5} during project construction.

As discussed previously, the SCAB has been designated as a federal nonattainment area for O_3 and $PM_{2.5}$ and a state nonattainment area for O_3 , PM_{10} , and $PM_{2.5}$. Proposed construction activities for the project would generate VOC and NO_x emissions (which are precursors to O_3) and PM_{10} and $PM_{2.5}$ emissions. However, as indicated in Table 4, project-generated construction emissions would not exceed the SCAQMD emission-based significance thresholds for VOC, NO_x , PM_{10} , or $PM_{2.5}$ and therefore the project would not cause a cumulatively significant impact.

Cumulative localized impacts would potentially occur if a construction project were to occur concurrently with another off-site project. Construction schedules for potential future projects near the project site are currently unknown; therefore, potential construction impacts associated with two or more simultaneous projects would be considered speculative.⁵ However, future projects would be subject to CEQA and would require air quality analysis and, where necessary, mitigation. Criteria air pollutant emissions associated with construction activity of future projects would be reduced through implementation of control measures required by SCAQMD. Cumulative PM₁₀ and PM_{2.5} emissions would also be reduced because all future projects would be subject to SCAQMD Rule 403 (Fugitive Dust), which sets forth general and specific requirements for all construction sites in the SCAQMD. Based on the previous considerations, the project would not result in a cumulatively considerable increase in emissions of nonattainment pollutants, and impacts would be less than significant.

⁵ The CEQA Guidelines state that if a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact (14 CCR 15145). This discussion is nonetheless provided in an effort to show good-faith analysis and comply with CEQA's information disclosure requirements.

Operational Emissions

Once project construction is complete, no operational activities associated with the proposed project would occur (no routine daily equipment operation or vehicle trips would be required). Because the project would not result in any long-term operational activities, there would be no potential air quality impacts associated with operational air pollutant emissions.

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

Less-Than-Significant Impact. Localized project impacts associated with construction criteria air pollutants emissions are assessed as described in the following paragraphs.

Sensitive Receptors

Sensitive receptors are those individuals more susceptible to the effects of air pollution than the population at large. People most likely to be affected by air pollution include children, elderly people, and people with cardiovascular and chronic respiratory diseases. According to SCAQMD, sensitive receptors include residences, schools, playgrounds, childcare centers, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes (SCAQMD 1993). The closest sensitive receptor land uses are residences located approximately 160 feet to the south of the project site.

Localized Significance Thresholds

SCAQMD recommends a localized significance threshold (LST) analysis to evaluate localized air quality impacts to sensitive receptors in the immediate vicinity of the project site as a result of construction activities. The impacts were analyzed using methods consistent with those in SCAQMD's Final Localized Significance Threshold Methodology (LST Methodology; SCAQMD 2009). The project is located in Source Receptor Area 4 (South Coastal Los Angeles County). The project's construction activities would occur in two phases, separated by several years, on 1.6 acres (Phase I) and 7.2 acres (Phase II); therefore, for the purposes of the LST analysis, emissions thresholds based on a 2-acre site were used, which was estimated using SCAQMD's Fact Sheet for Applying CalEEMod to Localized Significance Thresholds (SCAQMD 2011). This is a conservative approach, as LSTs increase with the size of project site. As mentioned previously, the closest sensitive receptors are residences located approximately 160 feet to the south of the project site. The closest receptor distance available in the SCAQMD LST Methodology is 50 meters (164 feet), so that is what was assumed for this analysis.

Project construction activities would result in temporary sources of on-site criteria air pollutant emissions associated with construction equipment exhaust and dust-generating activities. The maximum daily on-site construction emissions generated during construction of the proposed project are presented in Table 5 and are compared to the SCAQMD localized significance criteria for Source Receptor Area 4 to determine whether project-generated on-site construction emissions would result in potential LST impacts.

	NO ₂	CO	PM ₁₀	PM _{2.5}				
Year		Pounds per Day (On Site)						
2021	19.43	19.76	3.68	2.38				
2022	35.71	21.09	7.15	4.36				
2023	30.37	20.00	6.88	4.11				
2030	29.63	34.16	12.14	6.80				
2031	29.60	34.14	12.14	6.81				
2032	29.59	24.13	6.02	6.81				
Maximum daily on-site emissions	35.71	34.16	12.14	6.81				
SCAQMD LST criteria	80	1,158	21	7				
Threshold exceeded?	No	No	No	No				

Table 5 Construction Localized Significance Thresholds Analysis

Source: SCAQMD 2009.

Notes: NO_2 = nitrogen dioxide; CO = carbon monoxide; PM_{10} = particulate matter; $PM_{2.5}$ = fine particulate matter; SCAQMD = South Coast Air Quality Management District; LST = localized significance threshold.

See Appendix A for detailed results.

Localized significance thresholds are shown for a 2-acre project site, corresponding to a distance to a sensitive receptor of 50 meters (approximately 164 feet).

As shown in Table 5, proposed construction activities would not generate emissions in excess of site-specific LSTs; therefore, localized project construction impacts would be less than significant.

CO Hotspots

Traffic-congested roadways and intersections have the potential to generate localized high levels of CO. Localized areas where ambient concentrations exceed federal and/or state standards for CO are termed CO "hotspots." CO transport is extremely limited because CO disperses rapidly with distance from the source. Under certain extreme meteorological conditions, however, CO concentrations near a congested roadway or intersection may reach unhealthy levels, affecting sensitive receptors. Typically, high CO concentrations are associated with severely congested intersections. Projects contributing to adverse traffic impacts may result in the formation of a CO hotspot. Additional analysis of CO hotspot impacts would be conducted if a project would result in a significant impact or contribute to an adverse traffic impact at a signalized intersection that would potentially subject sensitive receptors to CO hotspots. During construction of the project, construction traffic would affect the intersections near the project site. However, the proposed project would be temporary and would not be a source of daily, long-term mobile-source emissions. In addition, due to continued improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the SCAB is steadily decreasing. Finally, as discussed in Section 3.17, Transportation, of this IS/MND, transportation impacts would be less than significant. Furthermore, the project would not generate additional post-construction traffic because the project would not require operational staff; therefore, impacts related to CO hotspots would be less than significant.

Toxic Air Contaminants

Toxic air contaminants (TACs) are defined as substances that may cause or contribute to an increase in deaths or in serious illness, or that may pose a present or potential hazard to human health. As discussed under Localized Significance Thresholds (the LST analysis), the nearest sensitive receptors to the proposed project are residences located adjacent to Haynes.

Health effects from carcinogenic air toxics are usually described in terms of cancer risk. SCAQMD recommends an incremental cancer risk threshold of 10 in 1 million. "Incremental cancer risk" is the net increased likelihood that a person continuously exposed to concentrations of TACs resulting from a project over a 9-, 30-, and 70year exposure period will contract cancer based on the use of standard Office of Environmental Health Hazard Assessment risk-assessment methodology (OEHHA 2015). In addition, some TACs have non-carcinogenic effects. SCAQMD recommends a Hazard Index of 1 or more for acute (short-term) and chronic (long-term) non-carcinogenic effects.⁶ TACs that would potentially be emitted during construction activities associated with the proposed project would be diesel particulate matter.

Diesel particulate matter emissions would be emitted from heavy equipment operations and heavy-duty trucks. Heavy-duty construction equipment is subject to a California Air Resources Board (CARB) airborne toxics control measure for in-use diesel construction equipment to reduce diesel particulate emissions. As described for the LST analysis, PM₁₀ and PM_{2.5} (representative of diesel particulate matter) exposure would be less than significant. According to the Office of Environmental Health Hazard Assessment, health risk assessments (which determine the exposure of sensitive receptors to toxic emissions) should be based on a 30-year exposure period for the maximally exposed individual resident; however, such assessments should also be limited to the period/duration of activities associated with the project. The duration of the proposed construction activities would constitute a small percentage of the total 30-year exposure period. The construction period for the proposed project would be approximately 45 non-continuous months (i.e., two phases separated by several years), after which construction-related TAC emissions would cease. Due to this relatively short period of exposure and the minimal particulate emissions on site, TACs generated during construction would not be expected to result in concentrations causing significant health risks.

Following completion of on-site construction activities, the project would not involve routine operational activities that would generate TAC emissions. The project would not result in substantial TAC exposure to sensitive receptors in the vicinity of the proposed project, and impacts would be less than significant.

⁶ Non-cancer adverse health risks are measured against a hazard index, which is defined as the ratio of the predicted incremental exposure concentrations of the various non-carcinogens from the project to published reference exposure levels that can cause adverse health effects.

Health Effects of Criteria Air Pollutants

Construction emissions of the project would not exceed the SCAQMD thresholds for any criteria air pollutants, including VOCs, NO_x, CO, SO_x, PM₁₀, and PM_{2.5}.

Health effects associated with O_3 include respiratory symptoms, worsening of lung disease leading to premature death, and damage to lung tissue (CARB 2019). VOCs and NO_x are precursors to O_3 , for which the SCAB is designated as nonattainment with respect to the NAAQS and CAAQS. The contribution of VOCs and NO_x to regional ambient O_3 concentrations is the result of complex photochemistry. The increases in O_3 concentrations in the SCAB due to O_3 precursor emissions tend to be found downwind of the source location because of the time required for the photochemical reactions to occur. Further, the potential for exacerbating excessive O_3 concentrations would also depend on the time of year that the VOC emissions would occur, because exceedances of the O_3 NAAQS and CAAQS tend to occur between April and October when solar radiation is highest. Due to the lack of quantitative methods to assess this complex photochemistry, the holistic effect of a single project's emissions of O_3 precursors is speculative. However, because the proposed project emissions of O_3 precursors would remain substantially below the SCAQMD thresholds, the proposed project would not contribute to health effects associated with O_3 .

Health effects associated with NO_x include lung irritation and enhanced allergic responses (CARB 2019). Because project-related NO_x emissions would remain substantially below the SCAQMD thresholds, and because the SCAB is a designated attainment area for NO_2 and the existing NO_2 concentrations in the area are well below the NAAQS and CAAQS standards, it is not anticipated that the proposed project would cause an exceedance of the NAAQS and CAAQS for NO_2 or result in potential health effects associated with NO_2 and NO_x .

Health effects associated with CO include chest pain in patients with heart disease, headache, light-headedness, and reduced mental alertness (CARB 2019). CO tends to be a localized impact associated with congested intersections. The associated potential for CO hotspots was discussed previously and determined to be less than significant. Thus, the project's CO emissions would not contribute to significant health effects associated with CO.

Health effects associated with particulate matter include hospitalization and premature death, primarily from worsening of respiratory disease (CARB 2019). Construction of the project would not exceed thresholds for PM₁₀ or PM_{2.5}, would not contribute to exceedances of the NAAQS and CAAQS for particulate matter, and would not obstruct the SCAB from coming into attainment for these pollutants. The project would also not result in substantial diesel particulate matter emissions during construction. Additionally, the project would be required to comply with SCAQMD Rule 403, which limits the amount of fugitive dust generated during construction (SCAQMD 2005). Due to the minimal contribution of particulate matter during construction, the project is not anticipated to result in health effects associated with PM₁₀ or PM_{2.5}.

In summary, construction and operation of the proposed project would not result in exceedances of the SCAQMD significance thresholds for criteria pollutants, and potential health effects associated with criteria air pollutants would be less than significant.

d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less-Than-Significant Impact. The occurrence and severity of potential odor impacts depend on numerous factors. The nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receiving location each contribute to the intensity of the impact. Although offensive odors seldom cause physical harm, they can be annoying, cause distress among the public, and generate citizen complaints.

During project construction, exhaust from equipment may produce discernible odors typical of most construction sites. Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment. However, such odors would disperse rapidly from the project site and generally occur at magnitudes that would not affect substantial numbers of people. Accordingly, impacts associated with odors during construction would be less than significant.

Land uses and industrial operations associated with odor complaints include agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding facilities (SCAQMD 1993). Operation of the proposed project would not entail these or any other potentially odor-causing land uses. No operational activities would be associated with the project. Therefore, the proposed project would not create any new sources of odor during operation and would result in a less-than-significant impact.

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3.4 Biological Resources

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION HAYNES GENERATING STATION INTAKE CHANNEL INFILL PROJECT

	Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				
c)	Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				\boxtimes
f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				

The following analysis is based on the Marine Biological Resources Report prepared for the proposed project and included in this IS/MND as Appendix B.

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less-Than-Significant Impact with Mitigation Incorporated. The project site consists of the northern portion of the Haynes Intake Channel, a trapezoidal channel with earthen bottom and embankments that are paved to below the high water line. The project site is located within the Haynes property, which is an

industrially developed energy generating facility. The project would involve filling in the northern portion of the Haynes Intake Channel, from the southern edge of the 2nd Street bridge to the channel's northern terminus, with engineered fill. The project boundaries encompass approximately 7.64 acres (surface area) of marine water that has a depth of approximately 26 to 28 feet when measured from the top of bank. The project would permanently alter the existing environment in the Haynes Intake Channel within the project site by replacing the open water in the channel with fill material.

Information on biological resources in the project area was gathered through background research, literature review, and field surveys conducted in September, October, and December 2019. Focused surveys included infield water quality sampling and testing, subsurface eelgrass bed mapping, marine fishes and invertebrates surveys, an Essential Fish Habitat (EFH) assessment, marine bird surveys, and a jurisdictional wetland assessment and mapping. During these focused efforts, all observed terrestrial and aquatic wildlife, algae, and plant species, including special-status species, were recorded to generate full marine and terrestrial species inventories. The survey boundaries for the project area are depicted on Figure 3, Biological Surveys, of Appendix B. The project site was surveyed for benthic, demersal, and open water habitats. The survey area for terrestrial plants was defined as an area 100 feet beyond the intake channel within Haynes, including the graveled bank of the Haynes Intake Channel itself. The survey boundary for birds included an additional area defined as extending 300 feet out from the channel. The presence of any species identified as candidate, sensitive, or special status, or suitable habitat for such species, as identified in the literature review, background research, or field surveys, has been documented in Appendix B and is summarized below.

The project could result in direct or indirect impacts to special-status species. "Direct impacts" may be temporary or permanent and refer to impacts that result in direct removal of habitat or other biological resources and direct impacts to species occupying the habitat that is being disturbed or removed. Direct impacts of the project could result from habitat or species loss and are expected to be permanent. "Indirect impacts" may be temporary or permanent and refer to reasonably foreseeable effects caused by project implementation on remaining or adjacent biological resources outside the direct construction disturbance zone. Indirect impacts of the project are related to noise and water quality impacts during project implementation and are expected to be temporary.

Special-Status Plant Species

A list of plant/algae species observed within the project site is presented in Appendix C of the Marine Biological Resources Report (Appendix B to this IS/MND). Outside the marine habitat in the Haynes Intake Channel, the survey area is entirely developed with industrial uses and supports no soils suitable for terrestrial plants; therefore, no special-status terrestrial plant species occur. During field surveys, the only special-status plant species observed on site was eelgrass, a marine vegetation community that is managed by the California Eelgrass Mitigation Policy (CEMP) (NMFS 2014) and is considered a habitat area of particular concern (HAPC). Eelgrass habitat has been further designated as EFH under the Magnuson-Stevens Fishery Conservation and

Management Act, and as such is considered EFH under the Pacific Coast Groundfish Fishery Management Plan (FMP; PFMC 2016). Eelgrass baseline surveys were conducted within the project site using both visual (scientific dive) and acoustic (sonar) survey methods. In accordance with the CEMP, the following parameters were assessed for eelgrass: spatial distribution, areal extent, percent of cover (vegetated), and turion (shoot) density.

Direct Impacts

The project would result in direct impacts to eelgrass through permanent removal of approximately 2.19 acres of eelgrass habitat, which includes 0.70 acres of vegetated and 1.49 acres of unvegetated habitat. Impacts to eelgrass beds are considered potentially significant and would require mitigation.

As described in the CEMP (NMFS 2014), when impacts to eelgrass would occur, an Eelgrass and Marine Habitat Mitigation and Monitoring Plan (Mitigation Plan) to achieve no net loss in eelgrass function should be developed (see Mitigation Measure [MM] BIO-1). The CEMP provides options for mitigation, including (1) comprehensive management plans, (2) in-kind mitigation, (3) mitigation banks and in-lieu-fee programs, and (4) out-of-kind mitigation. Currently, the project site is not located within an adopted comprehensive management plan area for eelgrass. However, due to the presence of a potential mitigation site in the Haynes Intake Channel south of 2nd Street, an option for in-kind mitigation, consisting of the creation, restoration, or enhancement of eelgrass habitat, is possible within this portion of the channel. To establish the quality and quantity of potential eelgrass mitigation area in the proposed mitigation site, the channel south of the 2nd Street bridge was surveyed in a similar manner to the project site. This included dive, water quality, bathymetric, and side scan sonar surveys of the Haynes Intake Channel from 2nd Street to the southern end of the open channel where the intake conduits from Alamitos Bay daylight. The locations of existing eelgrass beds (and thereby the location of areas for potential eelgrass habitat restoration) are shown in Appendix B on Figure 9A, Potential Mitigation Site (Northern Portion) Eelgrass, and Figure 9B, Potential Mitigation Site (Southern Portion) Eelgrass. In general, the southern portion of the Haynes Intake Channel (i.e., south of 2nd Street) is similar to the project site (i.e., north of 2nd Street) in hydrologic system, location, depth, sediment type, distance from ocean connection, and water quality and currents. As detailed in Appendix B, surveys revealed that the potential mitigation site could be used as an area for eelgrass mitigation, thereby potentially fulfilling mitigation requirements immediately adjacent to Haynes. Although the potential mitigation site has steeper banks, an abundance of sea lettuce (Uha lactuca), some invasive Japanese wireweed (Sargassum muticum), and patchy to dense eelgrass beds, this location has better water quality than the project site due to its distance from the intakes. Moreover, this area has not been dredged in more than 20 years. Therefore, MM-BIO-1 is required to establish the appropriate compensatory mitigation for eelgrass in consultation with the resource agencies.

As noted in the CEMP, throughout California, mitigation of eelgrass habitat should be based on replacement at a 1.2 (mitigation) to 1 (impact) ratio. However, given variable degrees of success across the region and the potential for delays and mitigation failure, a mitigation calculator is used to identify a recommended starting mitigation ratio based on the regional history of success of eelgrass mitigation. The calculated starting mitigation ratios described in the CEMP use the Five-Step Wetland Mitigation Ratio Calculator (King and Price 2004). In Southern California, a starting ratio of 1.38 (transplant area) to 1 (vegetated cover impact area) is used for mitigation activities that occur concurrent to the action resulting in damage to existing eelgrass habitat. Specifically, for each square meter (10.76 square feet) of vegetated eelgrass cover adversely impacted, 1.38 square meters (14.85 square feet) of new habitat with suitable conditions to support eelgrass should be planted with a comparable bottom coverage and eelgrass density to the impacted habitat. This higher ratio is used to counter failure. It is to be applied to the area of impact to vegetated eelgrass cover only. Unvegetated habitat uses a starting mitigation ratio of 1.2 (mitigation) to 1 (unvegetated habitat). Ultimately, eelgrass mitigation is considered successful if it meets eelgrass habitat coverage over an area that is 1.2 times the impact area with comparable eelgrass density and habitat. Table 6 provides a summary of the calculation of eelgrass mitigation for this project.

Eelgrass Habitat	Impact Area (Acres)ª	Mitigation Ratio (Starting)	Mitigation Area to Plant (Starting)	Mitigation Ratio (Final)	Mitigation Area (Final) (Acres)
Vegetated cover	0.70	1.38 to 1	0.97	1.2 to 1	0.84
Unvegetated cover (i.e., 5-meter buffer)	1.49	1.2 to 1	1.79	1.2 to 1	1.79
Total	2.19	—	2.76	—	2.63

Table 6 Starting and Final Mitigation Ratios and Acres for Impacts to Eelgrass Habitat

Note:

^a Acres associated with the September, October, and December 2019 surveys.

Although some fish and invertebrates have made their way into the Haynes Intake Channel through the 6-inch gaps in the bar racks, the channel does not support local populations of managed fish or invertebrates other than topsmelt (*Atherinops affinis*). All other managed fish and invertebrate species observed, including game fish, such as California halibut (*Paralichthys californicus*) and California spiny lobster (*Panulirus interruptus*), were represented by one to a few individuals, respectively, which does not constitute a viable breeding population. Overall, the loss of habitat in the northern portion of the Haynes Intake Channel represents a small fraction of available tidally influenced aquatic habitat in the surrounding area. The nearby Alamitos Bay, Colorado Lagoon, lower San Gabriel River, and AES Alamitos Generating Station intake channel all provide more productive aquatic habitat than the Haynes Intake Channel, with Alamitos Bay providing particularly high-quality aquatic habitat. The Haynes Intake Channel supplies marine waters to cool industrial gas-powered generation units. A sample location in the San Gabriel River, approximately 4,368 linear feet (0.83 miles) away from the project site, provides better-quality habitat for fish and bird species. Alamitos Bay, and to a lesser extent the lower San Gabriel River, will continue to function as fish nursery grounds and bird foraging habitat.

Nevertheless, in-kind mitigation is recommended for mitigating impacts to approximately 2.19 acres of eelgrass habitat (i.e., 0.70 acres of vegetated habitat and 1.49 acres of unvegetated habitat) within the project site. As shown in Table 6, approximately 2.76 acres should be planted at the start, with a final goal of approximately 2.63 acres of eelgrass habitat, to ensure a final mitigation success ratio of 1.2 (mitigation) to 1 (impacts). Therefore, with implementation of MM-BIO-1 to establish the appropriate compensatory mitigation in consultation with the resource agencies, impacts to eelgrass habitat would be mitigated to less than significant.

Indirect Impacts

The project could result in indirect impacts to remaining eelgrass habitat adjacent to the project site, outside the direct impact area (i.e., south of East 2nd Street). Construction activities may result in a temporary increase in localized sedimentation. Sediments could become suspended in the available water column, which would increase turbidity. The water column is already consistently subjected to sedimentation and high levels of turbidity due to water movement through the Haynes Intake Channel, so a temporary increase in suspended sediments would likely cause minimal short-term indirect effects. Any introduced sedimentation would be exposed to adjacent open waters and would likely mix and settle with receiving waters and quickly dissipate. Best management practices (BMPs) would be implemented to ensure that work limits are delineated (BMP-BIO-1; see Section 2.5, Best Management Practices) such that all work, construction materials/equipment, sediment, trash, discharge, and other materials would be confined within work limits. Additional BMPs would be implemented to ensure that indirect impacts to water quality are avoided or reduced, such as implementation of a dewatering plan (BMP-HYD-1), compliance with a General Storm Water Permit (BMP-HYD-2) and methods to control erosion and rate of runoff (BMP-HYD-3 and BMP-HYD-4). Therefore, with implementation of BMP-BIO-1 and BMP-HYD-1 through BMP-HYD-4, indirect impacts to eelgrass habitat outside the project site would be less than significant.

Special-Status Wildlife Species

State or Federally Listed Wildlife Species

Based on literature review and background research, all special-status wildlife species that have potential to occur within the project vicinity or that were directly observed within the project site are presented in Table 10 and Appendix D of the Marine Biological Resources Report (see Appendix B). Many of these species were determined to have low potential to occur on site or were omitted from further discussion based on a habitat suitability analysis that determined an absence of suitable habitat on site. The following discussion represents special-status species with high potential to occur on site or that have been directly observed on site, including great blue heron (*Ardea herodias*), American peregrine falcon (*Falco peregrinus anatum*), California least tern (*Sternula antillarum browni*), green sea turtle (*Chelonia mydas*), and topsmelt (a managed fish species).

Great blue heron is the only special-status bird species that was observed on site during field surveys. However, only nesting colonies of this species are considered sensitive by the California Department of Forestry and Fire

Protection (CAL FIRE) during timber operations (CDFW 2019). Suitable habitat for great blue heron within the project site consists solely of foraging habitat; no suitable nesting habitat is present due to the lack of trees on site and the industrial nature of the project site, consisting primarily of concrete, asphalt, generation units, and the Haynes Intake Channel. Project activities are not expected to directly affect adult birds or fledglings, which are highly mobile and can fly away from construction disturbance. Further, the species is also protected under the Migratory Bird Treaty Act and California Fish and Game Code Section 3503 while nesting only. Because no habitat suitable for nesting by this species occurs on the project site or in the immediate vicinity, direct and indirect impacts to great blue heron would be less than significant.

The American peregrine falcon, a special-status bird of prey that hunts avian prey species, has a high potential to occur within the project site. Although no nesting habitat occurs within the project site, this species may use the project area for foraging. Additionally, a nesting pair of American peregrine falcons was detected during spring 2017 at Haynes Generating Station on the upper level of Unit 5 (northwest corner) and was seen during a general inspection of the cooling towers (Dudek 2017). Unit 5 is currently under demolition. As described in Appendix B, American peregrine falcon has no potential to nest directly on the project site but may occur on site occasionally and has been known to nest near the project site. However, given the low abundance of suitable avian prey in the Haynes Intake Channel and the developed state of the surrounding area, this species is most likely to occur here only in passing, rather than for foraging or nesting. Since the species has been known to nest near the project site avian could be potentially significant, because of the potential to disrupt nesting and cause adult birds to abandon their nests. With implementation of MM-BIO-2, pre-construction surveys for nesting birds would be conducted, which would mitigate potential impacts to nesting American peregrine falcons, if present.

California least tern, which is federally and state listed as endangered, as well as fully protected in California, has been known to roost on booms within the Haynes Intake Channel south of East 2nd Street, outside the proposed project site. However, as discussed in Appendix B, the Haynes Intake Channel provides poor nesting and foraging habitat for this species, and preferred nesting and foraging habitat is located nearby. Because only adult or fully fledged juvenile terns would occur at the project site or in the vicinity, and because adults and fledglings would be able to avoid construction activities, no direct or indirect impacts to individual California least terns would occur from the proposed project.

The federally listed green sea turtle is known to occur in the vicinity and has been previously reported in the Haynes Intake Channel. Upon investigation, the reported occurrences of green sea turtles in the Haynes Intake Channel were determined to involved human intervention, as the adult turtles were too large to pass through the metal bar racks with 6-inch vertical gaps in the conduits between Alamitos Bay and the channel. Green sea turtles have a habitat preference for the warmer waters in the San Gabriel River (which are warmed by the OTC system outputs from Haynes and Alamitos Generating Station). However, there is no conveyance of waters from the San Gabriel River into the Haynes Intake Channel. Therefore, based on evidence and further research

discussed in Appendix B, green sea turtles are highly unlikely to be able to access the Haynes Intake Channel, and this species is not expected to occur in the channel without human intervention. Nonetheless, as a precautionary measure, pre-construction training (MM-BIO-4) and biological monitoring (MM-BIO-5) during dewatering activities would be implemented to reduce any potential impacts to green sea turtles, in the unlikely event that any gain access to the channel. Further, as part of the project, marine wildlife would be safely relocated from the project site to the portion of the Haynes Intake Channel on the opposite side of the cofferdam. While sea turtles are not anticipated within the Haynes Intake Channel, if they are observed within the channel, rescue attempts would be performed through coordination with and authorization from NMFS. Thus, direct and indirect impacts to green sea turtle would be less than significant.

A California Natural Diversity Database search (CDFW 2020) resulted in occurrences for additional specialstatus species within 5 miles of the project site, including western spadefoot (*Spea hammondii*), Blainville's horned lizard (*Phrynosoma blainvillii*), burrowing owl (*Athene cunicularia*), and black skimmer (*Rynchops niger*). However, the project site and vicinity do not support suitable habitat (ephemeral pools, burrows or soils suitable for burrowing, sandy beaches, sandbars, salt flats, or any natural terrestrial land covers) and the site supports no terrestrial prey base (invertebrates or small terrestrial vertebrates) or foraging habitat for these species. Therefore, these species have low potential to occur on site or to forage in the unproductive waters of the Haynes Intake Channel. Thus, indirect and direct impacts to these species would be less than significant.

Managed Fish and Invertebrate Species

Magnuson-Stevens Act managed species, including topsmelt (a silverside species), California spiny lobster, and kelp bass (*Paralabrax clathratus*), were observed on site during the field surveys. Impacts to topsmelt are guided by two FMPs (PFMC 2016, 2018). California spiny lobster is managed under a separate FMP (CDFW 2016). Kelp bass, which is managed only by the state, is identified as a high-priority species in need of management and conservation measures to comply with the policies of the Marine Life Management Act.

The project could result in direct impacts to marine organisms that reside in the Haynes Intake Channel because they could be trapped north of the cofferdam at the outset of project construction. However, as part of the project, following installation of each cofferdam and prior to dewatering, marine wildlife (including managed fish and invertebrate species) would be safely relocated from the project site to the portion of the Haynes Intake Channel on the south side of the cofferdam. Wildlife relocation activities would be performed by qualified biologists under an approved scientific collecting permit from the California Department of Fish and Wildlife (CDFW). Methods used for capturing wildlife may include seining, dip-netting, or other approved nets or capture methods. Visual estimates of species and numbers relocated, as well as dead or dying individuals, would be submitted to CDFW as part of the scientific collecting permit reporting. Therefore, the project would result in less than significant direct impacts to managed fish and invertebrate species found in the project site. Although the water column within the Haynes Intake Channel is already subject to high levels of unnatural noise from consistent operation of the Haynes Generating Station, construction noise would increase ambient noise levels at and surrounding the project site. Additionally, short-term water quality impacts would occur as a result of increased turbidity and sedimentation. Additional construction noise, which would occur only in the portions of the channel on the inside of the cofferdam after marine wildlife have been collected and relocated, would be unlikely to create significant impacts to any managed fish and invertebrate species potentially occurring in the vicinity of the project site. Further, potential short-term water quality impacts would likely not affect the success of populations due to the ability of the juvenile and adult fish to relocate to adjacent areas. Therefore, indirect impacts to managed fish and invertebrate species would be less than significant. Temporary relocation of these mobile species would not result in biologically significant impacts with regard to competition, predation, or spawning. Therefore, indirect impacts to managed fish and invertebrate species would be less than significant.

Summary

Special-status species or suitable habitat have been observed on site or have potential to occur on the project site, including eelgrass, green sea turtle, California least tern, American peregrine falcon, and topsmelt (a managed fish species). As discussed above, MM-BIO-1 would offset impacts to eelgrass by requiring preparation of an Eelgrass Mitigation and Monitoring Plan in accordance with the NMFS California Eelgrass Mitigation Policy; MM-BIO-2 would offset impacts to nesting bird species by requiring pre-construction nesting bird surveys; MM-BIO-3 would also apply to reduce impacts to biological resources, as it calls for monitoring and adaptive management for identified biological resources to ensure effective resource protection; MM-BIO-4 would reduce impacts to special-status species by requiring for workers on site for identifying special-status species and methods for avoiding inadvertent impacts; and lastly, MM-BIO-5 would reduce potential impacts to biological resources by requiring a biological monitor on site. The full text and details for each of these mitigation measures is provided below. Additionally, implementation of BMP-BIO-1 and BMP-HYD-1 through BMP-HYD-3 (see Section 2.5 for complete BMPs) would further reduce impacts to candidate, sensitive, or special-status species below a level of significance:

MM-BIO-1 Eelgrass Mitigation and Monitoring Plan. Prior to project implementation, the Los Angeles Department of Water and Power (LADWP) shall prepare an Eelgrass Mitigation and Monitoring Plan (Mitigation Plan) in consultation with the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS) and the California Department of Fish and Wildlife (CDFW) to describe the approach for compensatory mitigation for the loss of eelgrass habitat from the proposed project. Mitigation for impacts shall be implemented as mutually agreed upon by NMFS, CDFW, and LADWP. Preference in the Mitigation Plan shall be given to in-kind replacement of the eelgrass habitat, and further preference shall be given to such replacement within the southern section of the Haynes Intake Channel (south

of the 2nd Street bridge). Such mitigation shall be implemented in accordance with the NMFS California Eelgrass Mitigation Policy (CEMP), including site selection; initial and long-term habitat area replacement ratios; methods for and timing of transplantation activities; and monitoring, performance, and reporting requirements. Should in-kind mitigation within the Haynes Intake Channel not be feasible, consideration shall be given to in-kind mitigation first in areas in close proximity to the channel, then in locations within the Southern California region. If in-kind mitigation is not feasible, mitigation banks or in-lieu fee conservation programs shall be given preference over out-of-kind mitigation.

MM-BIO-2 Pre-Construction Surveys for Nesting Birds. To avoid impacting breeding and nesting birds in accordance with the Migratory Bird Treaty Act, a breeding/nesting bird survey shall be conducted by a qualified biologist (monitoring biologist) no more than 72 hours prior to construction activities if they are to occur during the nesting season (January 15 through August 31). Bird nests that are detected within the project site shall be avoided by means of an established buffer zone until nesting is completed. A nesting survey is considered valid for 72 hours; should construction activities within the area be halted for any reason extending past this 72-hour window, a follow-up nesting bird survey shall be completed before work can commence again. The buffer zone shall be established around any identified active nests in coordination with the monitoring biologist and take into account existing baseline conditions (e.g., topography, buffering buildings, proximity to disturbances like roads, noise) and observed avian response to disturbance. The monitoring biologist may increase or decrease the original buffer depending on avian response.

Bird nest locations shall be mapped using GPS. If active nests are detected during a survey, the monitoring biologist shall monitor all nests with buffers at least once per week to determine whether birds are being disturbed. If signs of disturbance or stress are observed, the monitoring biologist shall immediately implement adaptive measures to reduce disturbance. These measures could include increasing buffer distance, halting construction activities until fledging is confirmed, or placing visual screeens or sound dampening structures between the nest and construction activity. If active nests are detected, the monitoring biologist shall monitor each nest until he/she determines that nestlings have fledged and dispersed or the nest is no longer active. Until such a determination is made, activities that might, in the opinion of the monitoring biologist, disturb nesting activities shall be prohibited within the buffer zone.

MM-BIO-3 Monitoring and Adaptive Management Plan. A monitoring and adaptive management plan (MAMP) shall be prepared and implemented prior to commencement of construction or

restoration activities. The MAMP shall provide a framework for monitoring site conditions in response to implementation of the proposed project.

The MAMP shall include the following:

- 1. All mitigation measures and precautionary measures included in the Initial Study/Mitigated Negative Declaration
- 2. All monitoring and compliance requirements proposed and agreed to by LADWP
- 3. A list and map of locations of all sensitive biological resources to be impacted, avoided, and mitigated by project construction and operation
- 4. Detailed descriptions of all measures that will be implemented to avoid and/or minimize impacts to special-status species and reduce habitat disturbance
- 5. All locations, on a map of suitable scale, of areas requiring temporary protection and avoidance during project construction and demolition
- 6. The duration for each type of monitoring and a description of monitoring methodologies and frequencies
- 7. Performance standards to be used to help decide if/when proposed mitigation measures are not successful
- 8. All performance standards and remedial measures to be implemented if performance standards are not met
- 9. Protocols for dealing with wildlife that gain access to project features whereby their wellbeing could be at risk
- 10. A description of eelgrass mitigation and planting measures
- 11. Maps of all areas to be disturbed during project construction activities
- 12. A requirement to submit any sightings of special-status species that are observed on or in proximity to the project site, or during project surveys, to the California Natural Diversity Database per California Department of Fish and Wildlife requirements
- **MM-BIO-4** Worker Environmental Awareness Program. Prior to commencement of activities within the project site, a qualified biologist shall prepare a Worker Environmental Awareness Program (WEAP) that provides a description of potentially occurring special-status species and methods for avoiding inadvertent impacts prior to commencement of activities within the project site. A qualified biologist is any biologist collecting or relocating marine wildlife, plants (i.e., eelgrass), or algae and must have a valid scientific collection permit from the California

Department of Fish and Wildlife that covers these species. The qualified biologist should be listed under a biological opinion and/or written permission from the National Marine Fisheries Service to approach or handle or relocate sea turtles within the Haynes Intake Channel. The WEAP training shall be provided to all construction personnel. Attendees shall be documented on a WEAP training sign-in sheet.

MM-BIO-5 Biological Monitoring. Cofferdam installation, dewatering, and aquatic wildlife removal activities shall be supervised by a qualified biologist (monitoring biologist). The monitoring biologist shall ensure that impacts to wildlife are minimized to the greatest extent feasible during implementation of the project. If any special-status wildlife species are encountered during construction and cannot be avoided, the monitoring biologist shall have the authority to temporarily halt construction activities until a plan for avoidance has been identified in consultation with the U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), and California Department of Fish and Wildlife (CDFW). Relocation of a federally or state-listed species shall not be allowed without first obtaining take authorization from USFWS, NMFS, and/or CDFW.

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less-Than-Significant Impact with Mitigation Incorporated. The project site contains an open, marine channel (the Haynes Intake Channel), but no riparian habitat. This channel supports one sensitive natural community: eelgrass habitat. The project site supports a total of 2.19 acres of eelgrass habitat (0.70 acres vegetated and 1.49 acres unvegetated). The proposed project would result in both direct and indirect potential impacts to eelgrass habitat. As discussed in Section 3.4(a), the project would result in permanent removal of 2.19 acres of eelgrass habitat. However, with implementation of a Mitigation Plan (MM-BIO-1) per CEMP requirements, direct impacts to eelgrass habitat would be mitigated. Indirect impacts to eelgrass habitat could result in increased sedimentation and turbidity in the adjacent water column (i.e., south of East 2nd Street), but BMP-BIO-1 and BMP-HYD-1 through BMP-HYD-3 would be implemented to reduce indirect impacts to eelgrass habitat outside the project site. Therefore, with implementation of MM-BIO-1 and incorporation of BMPs, impacts to sensitive natural communities would be reduced to a less-than-significant level.

c) Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less-Than-Significant Impact with Mitigation Incorporated. The project would result in filling a portion of the Haynes Intake Channel with earthen material. As discussed in the Marine Biological Resources Report, the project site contains 2,150 linear feet of jurisdictional aquatic resources, which include approximately 7.64 acres of USACE-jurisdictional non-wetland waters of the United States and RWQCB/CCC-jurisdictional non-wetland waters of the lack of potential wetlands or other aquatic resource features outside the limits of the Haynes Intake Channel, the limits of waters of the state (regulated by the RWQCB and CCC) are coincident with those for waters of the United States (regulated by USACE). Similarly, because the Haynes Intake Channel is a marine channel with no riverine influence, despite its proximity to the San Gabriel River, no potential CDFW-regulated lake, streambeds, or riparian habitats were identified on the project site. The determination of aquatic resource jurisdiction within the project site was supported by information obtained from the U.S. Geological Survey topographic map (USGS 1964), the U.S. Department of Agriculture soil survey (USDA 2017), the USFWS National Wetlands Inventory (USFWS 2018), a field assessment, and a topographic survey. Methods and results are discussed in greater detail in the 2020 Aquatic Resources Jurisdictional Resources for the proposed project (Appendix C to this IS/MND).

Impacts to jurisdictional waters would require review and approval by the resource agencies. The following agency permits would need to be obtained for the project in compliance with state and federal regulations for all project impacts to jurisdictional waters:

- Rivers and Harbors Act Section 10 or CWA Section 404 permit issued by USACE
- CWA Section 401 Water Quality Certification issued by RWQCB
- Coastal Development Permit issued by CCC

Direct Impacts

The project would result in the direct loss of 7.64 acres of USACE-jurisdictional non-wetland waters of the United States and RWQCB/CCC-jurisdictional non-wetland waters of the state as well as a like amount of benthic soft-bottom habitat. Direct impacts from loss of 7.64 acres of jurisdictional waters and soft-bottom habitat resulting from the proposed project would require mitigation as part of the regulatory permitting process. Therefore, MM-BIO-6, which would require preparation of a benthic soft-bottom and shallow open water habitat mitigation and monitoring plan, is recommended to establish the appropriate compensatory mitigation in consultation with the resource agencies.
Indirect Impacts

Absent implementation of any BMPs or project design features to limit project impacts, the project could have an indirect impact on jurisdictional waters outside the project site within the Haynes Intake Channel from water quality changes and sedimentation. However, incorporation of BMP-HYD-1 through BMP-HYD-3 would address concerns regarding turbidity and siltation affecting jurisdictional waters outside the project area.

With incorporation of BMP-HYD-1 through BMP-HYD-3 and implementation of the following mitigation measure (MM-BIO-6), impacts to jurisdictional waters would be less than significant:

MM-BIO-6 Benthic Soft-Bottom and Shallow Open Water Habitat Mitigation and Monitoring Plan. Prior to project implementation, the Los Angeles Department of Water and Power (LADWP) shall prepare a Habitat Mitigation and Monitoring Plan (Mitigation Plan) in consultation with the U.S. Army Corps of Engineers, the Regional Water Quality Control Board, the California Coastal Commission, and the California Department of Fish and Wildlife (collectively, the resource agencies). The Mitigation Plan shall describe the approach for compensatory mitigation for impacts to benthic soft-bottom habitat and shallow jurisdictional waters of the United States and state. Mitigation for impacts shall be implemented as mutually agreed upon by the resource agencies and LADWP and shall include habitat enhancement and/or creation through resource-agency-approved mitigation project(s), or purchase of credits at an approved in-lieu fee program or mitigation bank. If a mitigation project is deemed feasible and is mutually agreed upon by LADWP and the resource agencies, first preference would be given to the Los Cerritos Wetlands Complex as the location for the project.

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less-Than-Significant Impact. The project would involve filling a portion of the Haynes Intake Channel, which currently consists of an earthen-bottom channel containing marine water and benthic soft-bottom habitat. Ocean water is pumped into the Haynes Intake Channel from Alamitos Bay via a marine bulkhead intake structure located in the southeast corner of the Alamitos Bay Marina. From the marina, the water passes beneath the San Gabriel River via seven 1,150-foot-long enclosed pipes and surfaces in the Haynes Intake Channel on the east side of the San Gabriel River. The intake structure in Alamitos Bay is equipped with metal bar racks with bars spaced 6 inches apart to prevent access by larger marine wildlife. Only fish and invertebrate species in larval stages (i.e., ichthyoplankton, or zooplankton) or smaller fish (e.g., topsmelt, blennies, and gobies) can easily pass through the 6-inch openings between the bars, which has given rise to the occurrence of fish and invertebrate species in the Haynes Intake Channel in low abundance, as well as benthic soft-bottom habitat. The Haynes Intake Channel extends from east of the San Gabriel River approximately 1 mile northeast

to the 2nd Street bridge and into the Haynes property. The project site consists of the remaining 2,150 feet of the channel within the Haynes property.

Focused surveys were conducted at the project site in September, October, and December 2019, including infield water quality sampling and testing, subsurface eelgrass bed mapping, marine fishes and invertebrates surveys, an EFH assessment, bird surveys, and jurisdictional wetland assessment and mapping. During these focused efforts, all observed terrestrial and aquatic wildlife, algae, and plant species, including special-status species, were recorded to generate full marine and terrestrial species inventories. A total of 25 invertebrate species, 12 native fish species, 14 native bird species, and 4 marine algae species were observed during surveys (see Appendix B for detailed survey results and full marine and terrestrial species inventories). Additionally, the benthic soft-bottom habitat within the project site contains eelgrass habitat, which is a HAPC and EFH. Eelgrass beds are known to function as nursery grounds and provide habitat for juvenile fish, snails, sea stars, anemones, crabs, and clams, and further serve as potential foraging habitat for sea turtles. In total, the Haynes Intake Channel supports approximately 2.19 acres of eelgrass habitat, including 0.70 acres of vegetated habitat and 1.49 acres of unvegetated habitat.

As discussed in the Marine Biological Resources Report (Appendix B), because it is an isolated feature, segregated from the ocean environment except through mechanical pumping equipment and other apparatus, the Haynes Intake Channel does not generally possess the characteristics of open-ocean eelgrass habitat or provide the ecosystem functions important to EFH. Once entering the Haynes Intake Channel, individual organisms are generally hindered from reentering the ocean environment by the intake conduits that pass beneath the San Gabriel River and by the pumps and cooling apparatus at the generation unit condensers. Because of this lack of connectivity and the location of the channel, removed from areas along the shore affected by wave action, the eelgrass habitat in the Haynes Intake Channel does not serve the purpose that defines it as a HAPC and EFH in an open-water setting, including as a spawning and nursery ground and to provide protection to shorelines from erosion. As evidenced by the low abundance of fishery species and individuals (adult and larval) in the Haynes Intake Channel, the benthic habitat within the channel does not provide a productive habitat. Further, nearby habitat areas (e.g., the San Gabriel River and Alamitos Bay) provide better-quality habitat for fish and bird species and will continue to function as fish nursery grounds and bird foraging habitat. Therefore, the project would not substantially impede the use of a native wildlife nursery site.

The fragmented nature of the Haynes Intake Channel also precludes it from serving as a migration corridor or providing space for essential wildlife movement. Although some marine wildlife species are present in the water column, because the water intake structure is equipped with metal bar racks that prevent access to larger species and because the Haynes Intake Channel terminates at the northern extent of the project site, the water column is not representative of a migration corridor and does not allow for the passage or migration of native or migratory fish or marine wildlife species. Further, the nearby Alamitos Bay, Colorado Lagoon, lower San

Gabriel River, and AES Alamitos Generating Station intake channel all provide more productive aquatic habitat than the Haynes Intake Channel. Therefore, the project would not substantially interfere with the movement or migration of marine wildlife species.

Due to the industrial nature of the project vicinity, consisting primarily of concrete, asphalt, generation units and ancillary facilities, and the Haynes Intake Channel, and the lack of terrestrial vegetation, terrestrial wildlife was not observed on site with the exception of birds. Birds occurring on or adjacent to the project site were in the water, along the unvegetated banks of the Haynes Intake Channel, or flying over the channel. Given the low-quality habitat of the project site and the presence of more natural habitats nearby (e.g., the San Gabriel River, Alamitos Bay, and the Seal Beach National Wildlife Refuge), the project would not substantially impede the movement of native resident or migratory birds.

The project would not substantially interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites, and impacts would be less than significant.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. The Haynes property has a general plan land use designation of Industrial/Energy/Storage and a zoning designation of Planned Development District 1 (PD-1) and is located within the SEASP (City of Long Beach 2017, 2018). The proposed channel filling is consistent with the PD-1 zoning designation as well as the land use designation and the specific provisions of the SEASP and the General Plan. The project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, as no trees are proposed to be removed as part of the proposed project. Therefore, implementation of the proposed project would not conflict with any local policies or ordinances protecting biological resources, and no impact would occur.

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Less-Than-Significant Impact. The project site is adjacent to several conservation planning areas. The Orange County Transportation Authority's OCTA M2 Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP), finalized in 2016, is a multiple species NCCP/HCP that covers freeway improvements across Orange County. The project site is within approximately 0.1 miles of the NCCP/HCP area at its nearest point but does not overlap the NCCP/HCP area, and the project does not conflict with implementation of any covered activities, mitigation, or species protection under the NCCP/HCP.

The Seal Beach National Wildlife Refuge Comprehensive Conservation Plan (USFWS and SDNWRC 2012) covers conservation of listed species, migratory birds, and their habitats at Seal Beach National Wildlife Refuge, approximately 1.1 miles southeast of the project site. Although California least tern and other migratory bird species occurring at Seal Beach National Wildlife Refuge have potential to occur at the project site on occasion, as discussed in Section 3.4(a), impacts to these species as a result of the proposed project would be less than significant, and the project would not conflict with the Comprehensive Conservation Plan.

The Los Cerritos Wetland Restoration Plan is a conceptual restoration plan for approximately 503 acres of land and water located south and southwest of the project site within the historical Seal Beach Oil Field. The restoration plan was prepared and approved by the Los Cerritos Wetlands Authority, a joint powers agreement between the San Gabriel and Lower Los Angeles Rivers and Mountains Conservancy, State Coastal Conservancy, City of Long Beach, and City of Seal Beach. The Los Cerritos Wetlands Authority was created "to provide for a comprehensive program of acquisition, protection, conservation, restoration, maintenance and operation and environmental enhancement of the Los Cerritos Wetlands area consistent with the goals of flood protection, habitat protection and restoration, and improved water supply, water quality, groundwater recharge, and water conservation." The proposed project is located outside the restoration plan boundaries and would not conflict with the goals and provisions of the plan.

Other areas for local or regional conservation planning efforts, including the Orange County Central/Coastal NCCP/HCP (OCTA 1996) and the Rancho Palos Verdes NCCP/HCP (City of Rancho Palos Verdes 2018), are much farther (10 miles or more) from the project site; therefore, the proposed project would not conflict with these efforts and impacts would be less than significant.

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3.5 Cultural Resources

	Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?			\boxtimes	
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?		\boxtimes		
c)	Disturb any human remains, including those interred outside of dedicated cemeteries?			\boxtimes	

a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

Less-Than-Significant Impact. A cultural resources study was completed for the Haynes property in 2017. The South Central Coastal Information Center conducted a California Historical Resources Information System (CHRIS) records search on November 22, 2016, for the proposed project site and the surrounding 0.5 miles. This search included a review of its collection of mapped prehistoric, historic, and built-environment resources; Department of Parks and Recreation Site Records; technical reports; and ethnographic references. Additional consulted sources included historical maps of the project site; the National Register of Historic Places; the California Register of Historical Resources (CRHR); the California Historic Property Data File; and the lists of California State Historical Landmarks, California Points of Historical Interest, and Archaeological Determinations of Eligibility.

Historical photographs of the Haynes Steam Plant, available online through the Los Angeles Public Library, were also reviewed. The library hosts a digital collection of photographs and notes called the Department of Water and Power Photograph Archive, which comprises more than 20,000 historic photographs that reflect the early history of LADWP, documenting major events from as early as 1908. The collection includes several photographs of the Haynes Steam Plant during its construction and in its early years (Los Angeles Public Library 2017).

Other sources of information regarding the history and development of the plant included the Los Angeles Times (1923–present), accessed via ProQuest Historical Newspapers (Los Angeles Times 2017), and historical

aerial photograph research from the years 1952, 1953, 1963, 1972, 1994, 2002, 2003, 2004, 2005, 2009, 2010, and 2012 (NETR 2011).

A pedestrian survey of the project site was conducted on November 21, 2016. The Haynes property is entirely developed with an active power plant. Therefore, intensive-level archaeological survey methods (i.e., regularly spaced pedestrian transects) were not warranted. The original steam plant (i.e., the southern portion of the plant encompassing the project site) was surveyed for cultural resources. The survey involved walking the B and C Street access roads and examining equipment located between the generation units. This encompassed all portions of the plant between 2nd and 4th Streets to the north and south, and B and C Streets to the east and west. Major elements surveyed included Units 3, 4, 5, and 6; the generator deck that spans the area directly west of the units; the two associated control houses (Control Buildings B and C); associated generation unit transformers and buildings; the polishing and contaminated condensate tanks; buildings and structures located on the west side of C Street (including the storage building, warehouse and maintenance building, and chemical storage canopy); and the fuel tank storage area on the eastern side of the circulating water intake channel (specifically Tanks D and E).

The criteria for listing resources in the CRHR were developed to be in accordance with previously established criteria developed for listing in the National Register of Historic Places. According to California Public Resources Code Section 5024.1(c)(1-4), a resource is considered historically significant if it (1) retains "substantial integrity" and (2) meets at least one of the CRHR criteria. A resource less than 50 years old may be considered for listing in the CRHR if it can be demonstrated that sufficient time has passed to understand its historical importance and to obtain a scholarly perspective on events and individuals associated with the resource (see 14 CCR 4852[d][2]).

CRHR Criterion 1: Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

Units 1 through 6 of the Haynes Steam Plant were constructed between 1963 and 1967 to meet the energy demands of a rapidly growing post-World War II population in Los Angeles. Most power plants in the United States are constructed in response to population increases and a demand for more electricity. Because of the important function these plants provide, it may be concluded that most power plants have a high level of significance to the communities they serve. Therefore, it was necessary to evaluate the Haynes Steam Plant in the context of similar property types to distinguish between power plants that were designed expressly for the purpose of providing electricity to a given service area and plants that have made a significant contribution within the context of the property type. Although the Haynes Steam Plant played an important role in meeting the rapidly increasing demand for electricity in Los Angeles, it is not associated with specific events that influenced broad patterns of history. The Haynes Steam Plant was constructed to replace the significantly older Seal Beach Steam Plant, which operated from 1925 to 1962 and was demolished in 1967. The Haynes Steam

Plant is relatively recent in comparison to other Southern California power plants that were built during the 1940s and 1950s (e.g., LADWP's Harbor, Valley, and Scattergood plants, and Southern California Edison's Redondo Beach, Etiwanda, and El Segundo plants), and it cannot be credited as a pioneer of any specific type of steam generating technology. Therefore, the plant does not appear eligible under CRHR Criterion 1.

CRHR Criterion 2: Is associated with the lives of persons important in our past.

No important historical figures were found to be associated with the Haynes Steam Plant. Although the plant does bear the name of a significant figure in the history of Los Angeles and the struggle for municipal ownership of utilities, John R. Haynes is not directly associated with the plant, as he died almost 30 years before its construction and well before its conception. Therefore, the plant does not appear eligible under CRHR Criterion 2.

CRHR Criterion 3: Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.

The big utility companies in California (i.e., LADWP, Southern California Edison, San Diego Gas & Electric Company, and Pacific Gas & Electric Company) embarked on a massive steam plant building campaign from the late 1940s to the late 1960s, and many of these plants were similar to each other. The Haynes Steam Plant follows the general design criteria for steam power plants in California at the time, which included reducing transmission costs by constructing facilities close to load centers; close to fuel supplies; close to the ocean for cooling; and on a site suitable for a good, solid foundation and with enough land to allow for future expansion (most plants were constructed in phases over the course of many years). Although the number of generation units and associated infrastructure varied by plant, most plants also shared the same general list of equipment. As such, the Haynes Steam Plant does not appear to represent new aspects of plant siting or construction techniques. Further, there is no evidence that the Haynes Steam Plant was revolutionary in terms of steam generating technology. The original 1960s steam generating equipment appears to have been catalog ordered from well-known manufacturers like Hitachi, General Electric, and Brown Boveri, and does not appear to be unique to the Haynes Steam Plant, nor does this equipment appear to represent the last of its kind. For all the reasons described herein, the plant does not appear eligible under CRHR Criterion 3.

CRHR Criterion 4: Has yielded, or may be likely to yield, information important in prehistory or history.

The Haynes Steam Plant is unlikely to yield any information important to prehistory or history, nor is it associated with any archaeological resources. Therefore, the plant does not appear eligible for listing under CRHR Criterion 4.

The Haynes Steam Plant is not listed as a City historic landmark, and it has never been evaluated for local landmark designation. There is no discussion of the Haynes Steam Plant or LADWP in the City's Historic

Context Statement (City of Long Beach 2009), which examines the City from prehistory up to 1965. Steamgenerated electrical power is discussed only in the context of port and harbor development, specifically the Southern California Edison plants in Long Beach Harbor. The plant is located on easternmost edge of the City, at the Orange County line, in an area that was not annexed as part of the City of Long Beach until after 1955. Because the City's landmark designation criteria mirror those of the CRHR, a separate evaluation is not required. An evaluation of the plant's significance based on the City's landmark designation criteria indicates that the property is not eligible for local listing.

Based on the significance evaluation, Haynes does not appear to be eligible for listing in the CRHR or as a City of Long Beach historical landmark. As a result, the proposed project would have a less-than-significant impact on historical resources as defined in Section 15064.5.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to \$15064.5?

Less-Than-Significant Impact with Mitigation Incorporated. South Central Coastal Information Center records indicate that 34 cultural resources investigations have been conducted within a 0.5-mile search radius of the project site. Of these, 14 studies were mapped as overlapping the project site; however, these studies are general overview reports that do not specifically address the project site. The remaining 20 studies focused on areas in the vicinity of the project site, but none overlap the site.

There are no previously recorded cultural resources on the project site; however, a historic-age flood control channel (P-30-177074) is close to the eastern border of the project site. The flood channel was previously evaluated in support of a Los Alamitos Channel maintenance project (Dice 2013). The evaluation determined that the resource appears ineligible for listing in the National Register of Historic Places or the CRHR.

There are 10 additional previously recorded cultural resources within the surrounding 0.5-mile search radius. These resources include six prehistoric sites (P-19-001821, P-30-001539, P-30-001540, P-30-001541, P-30-001544, and P-30-001644), one multicomponent prehistoric and historic archaeological site (P-30-001542), one historic archaeological site (P-30-001543), and two historic built environment resources (P-19-186880 and P-19-186926). An additional 24 unmapped built environment resources included in the California Historic Property Data File are also within 0.5 miles of the project site.

The prehistoric sites are generally located south of the project site within the San Gabriel River watershed. The sites consist of a surficial shell scatter (P-30-001539) and buried deposit shell middens (P-19-001821, P-30-001540, P-30-001541, P-30-001544, and P-30-001644). No testing was conducted at any of the sites; therefore, the eligibility status of the sites remains unknown (LADWP 2017).

The multicomponent site (P-30-001542) is south of the project site within the San Gabriel River watershed. The site consists of a prehistoric surficial shell scatter mixed with an early twentieth century historic trash scatter. A second prehistoric component consisting of a buried prehistoric shell midden was also identified at this site location within a trench wall. No subsurface testing was conducted at this site.

The historic archaeological site (P-30-001543) consists of an early- to mid-twentieth century refuse scatter. The majority of the historic material consists of household debris that was attributed to refuse from the nearby Hellman Ranch. The historic site was not subject to subsurface testing.

The two built environment resources consist of elements of the former Southern California Edison Alamitos Electrical Generating Station (now the AES Alamitos Generating Station). The Alamitos Generating Station Tank Farm (P-19-186880) was constructed in the late 1950s. Although the tank farm and the associated fuel oil pumping station possess integrity, the property was determined not eligible for listing in the CRHR (Strudwick 2004). The Los Alamitos Pump Station (P-19-186926), constructed in 1957, has not been evaluated for historical significance.

The project site is entirely developed with power generating equipment and ancillary facilities and has no ground surface visibility. No surface-level archaeological resources were identified within the project site. However, the project site is situated in a geographic location that was considered ideal for prehistoric human occupation, located only 1.5 miles north of Alamitos Bay and the Pacific Ocean and directly adjacent to the eastern bank of the San Gabriel River. The project site's proximity to the wetlands that once lined the coast of Seal Beach would provide easy access to rich sources of food found in salt marsh estuary and bay environments, as evidenced at nearby prehistoric archaeological site CA-LAN-263, which yielded evidence of fish and sea mammal procurement activities along the beach and coastal strand (Koerper 2006). The project site's potential for archaeological sensitivity is further supported by the CHRIS records search results, which indicate the presence of multiple prehistoric shell midden sites located less than 0.5 miles southeast of the project site.

Other known archaeological resources in proximity to the project site that were not included as part of the CHRIS records search include the prehistoric Gabrieleño village site of Puvungna, located on the present-day California State Long Beach campus, less than 2 miles northwest of the project site. This village once contained more than a dozen archaeological sites, most of which were destroyed by development. Other nearby areas of archaeological sensitivity include Naval Weapons Station Seal Beach, which is located less than 1 mile east of the project site, and which has yielded numerous prehistoric archaeological deposits. Also less than 1 mile from the project site at the county line between Naval Weapons Station Seal Beach and the San Gabriel River is the Hellman Ranch site (CA-LAN-263), which revealed dozens of inhumations, cremations, and a variety of funerary artifacts.

In summary, the project site is located within an area of high sensitivity for archaeological resources, and impacts to archaeological resources would be considered potentially significant.

Over-excavation of the channel to create a defined fill area has the potential to significantly impact subsurface archaeological deposits near the channel. Therefore, implementation of the following mitigation measures would reduce impacts to archaeological resources below a level of significance:

- **MM-CUL-1** Archaeological Monitoring. A qualified archaeologist shall be present to monitor all grounddisturbing activities, including excavation activities, and any site grading, scraping, or leveling activities associated with the proposed project. The archaeological monitor shall work under the direction of a qualified principal investigator (i.e., an archaeologist who meets the Secretary of the Interior's Professional Qualification Standards). Before initiating ground-disturbing activities, the archaeological monitor or principal investigator shall conduct a brief awareness training session for the benefit of all construction workers and supervisory personnel. The training, which could be held in conjunction with the project's initial on-site safety meeting, shall explain the importance of and legal basis for the protection of significant archaeological resources. Each worker shall also learn the proper procedures to follow in the event that cultural resources or human remains are uncovered during ground-disturbing activities. These procedures include work curtailment or redirection, and immediately contacting the site supervisor and archaeological monitor.
- MM-CUL-2 **Discovery of Archaeological Resources.** In the event that archaeological resources (sites, features, or artifacts) are exposed during construction activities for the proposed project, all construction work occurring within 100 feet of the find shall immediately stop until a qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards, can evaluate the significance of the find and determine whether additional study is warranted. Depending on the significance of the find using California Environmental Quality Act (14 CCR 15064.5[f]; California Public Resources Code Section 21082) thresholds of significance, the archaeologist may simply record the find and allow work to continue or may recommend to the Los Angeles Department of Water and Power that additional evaluation, testing, and/or data recovery is warranted. If required, the treatment plan established for the resources shall be in accordance with CEQA Guidelines Section 15064.5(f) for historical resources and California Public Resources Code Section 21083.2(b) for unique archaeological resources. Preservation in place (i.e., avoidance) is the preferred manner of treatment. If preservation in place is not feasible, treatment may include implementation of archaeological data recovery excavations to remove the resource along with subsequent laboratory processing and analysis.

c) Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

Less-Than-Significant Impact. As previously discussed, there are no previously recorded cultural resources on the project site. Since the site has been previously developed, ground-disturbing activities associated with the project are unlikely to uncover previously unknown archaeological resources. However, if human skeletal remains are uncovered during ground-disturbing activities, project contractors are required by law to stop work and contact the County Coroner. California Health and Safety Code Section 7050.5 requires that, if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains can occur until the County Coroner has determined, within 2 working days of notification of the discovery, the appropriate treatment and disposition of the human remains. Furthermore, if the coroner determines or has reason to believe that the remains are those of a Native American, the coroner must contact the California Native American Heritage Commission within 24 hours (California Health and Safety Code, Section 7050.5c), and the California Native American Heritage Commission must notify the most likely descendant. The most likely descendant shall complete their inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.

Therefore, if Native American remains were uncovered during ground-disturbing activities associated with the proposed project, compliance with existing regulations would ensure that the appropriate authorities are notified and that discovered remains are treated with the appropriate respect and dignity. As such, impacts would be less than significant.

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3.6 Energy

	Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?				
b)	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			\boxtimes	

a) Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less-Than-Significant Impact. The service providers, supply sources, and estimated consumption for electricity, natural gas, and petroleum are discussed in the following paragraphs.

Energy Overview

Electricity

LADWP is the utility provider for the City of Los Angeles. LADWP provides electric services to 1.5 million customers, located in Los Angeles and in the Owens Valley. According to LADWP, customers consumed approximately 22.59 billion kilowatt-hours of electricity in 2019 (LADWP 2020). LADWP receives electric power from a variety of sources. According to the LADWP Power Content Label, 32% of LADWP's power came from renewable energy sources in 2018, including biomass/waste, geothermal, small hydroelectric, solar, and wind sources (LADWP 2019). Due to the state's energy efficiency building standards and efficiency and

conservation programs, California's electricity use per capita has remained stable for more than 30 years, while the national average has steadily increased (CEC 2015).

Natural Gas

Southern California Gas (SoCalGas) serves the proposed project area. SoCalGas serves 21.6 million customers in a 20,000-square-mile service area that includes over 500 communities (SoCalGas 2018). In 2016 (the most recent year for which data are available), SoCalGas delivered 5,123 million therms of natural gas, with the majority going to residential uses. Demand for natural gas can vary depending on factors such as weather, the price of electricity, the health of the economy, environmental regulations, energy-efficiency programs, and the availability of alternative renewable energy sources. Natural gas is available from a variety of in-state and out-of-state sources and is provided throughout the state in response to market supply and demand.

Petroleum

Transportation accounts for the majority of California's total energy consumption (CEC 2018). According to the Energy Information Association, California used approximately 672 million barrels of petroleum in 2016 (EIA 2018). This equates to a daily use of approximately 1.8 million barrels of petroleum. There are 42 U.S. gallons in a barrel, so California consumes approximately 77 million gallons of petroleum per day, adding up to an annual consumption of 28 billion gallons of petroleum. However, technological advances, market trends, consumer behavior, and government policies could result in significant changes in fuel consumption by type and in total. At the federal and state levels, various policies, rules, and regulations have been enacted to improve vehicle fuel efficiency, promote the development and use of alternative fuels, reduce transportation-source air pollutants and GHG emissions, and reduce vehicle miles traveled.

Construction Energy Use

Electricity

Temporary electric power for as-necessary lighting and electronic equipment would be provided by LADWP. The amount of electricity used during construction would be minimal, because typical demand would stem from electrically powered hand tools. The electricity used for construction activities would be temporary and minimal; therefore, proposed project construction would not result in wasteful, inefficient, or unnecessary consumption of electricity. Impacts would be less than significant.

Natural Gas

Natural gas is not anticipated to be required during construction of the proposed project. Fuels used for construction would primarily consist of diesel and gasoline, which are discussed under the subsection "Petroleum." Any minor amounts of natural gas that may be consumed as a result of proposed project construction would be temporary and negligible and would not have an adverse effect; therefore, proposed

project construction would not result in wasteful, inefficient, or unnecessary consumption of natural gas. Impacts would be less than significant.

Petroleum

Petroleum would be consumed throughout construction. Fuel consumed by construction equipment would be the primary energy resource expended over the course of construction. Transportation of construction materials and construction workers would also result in petroleum consumption. Heavy-duty construction equipment, delivery trucks, and haul trucks would use diesel fuel. Construction workers would likely travel to and from the project area in gasoline-powered vehicles. Construction is expected to take approximately 45 months, beginning in late 2021 and ending in 2023 for Phase I and starting in 2030 and ending in 2032 for Phase II of construction. Once construction activities cease, petroleum use from off-road equipment and transportation vehicles would end. Because of the short-term nature of construction and relatively small scale of the project, impacts would be less than significant.

Operational Energy Use

As discussed in Section 2.4, Project Construction, filling of the Haynes Intake Channel would create vacant land. Thus, there would be no operational or maintenance activities associated with the area. Therefore, there would be no operational energy use associated with the project and no impacts would occur.

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less-Than-Significant Impact. The proposed project would follow applicable energy standards and regulations during the construction phases. At this time, there is no specific project proposed for this land; it is proposed for a future energy storage project that will be assessed in a separate CEQA document when the details are known. As such, impacts related to the project's potential to conflict with plans for renewable energy and energy efficiency would be less than significant.

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3.7 Geology and Soils

	Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
	 Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. 				
	ii) Strong seismic ground shaking?			\square	
	iii) Seismic-related ground failure, including liquefaction?			\boxtimes	
	iv) Landslides?				\square
b)	Result in substantial soil erosion or the loss of topsoil?			\square	
c)	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION HAYNES GENERATING STATION INTAKE CHANNEL INFILL PROJECT

	Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?				
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				
f)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				\boxtimes

a) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

No Impact. The closest active earthquake fault in the vicinity of Haynes is the Newport–Inglewood Fault, located approximately 3,000 feet southwest of the project site at the closest point (CDMG 1986; City of Long Beach 1988). Portions of this fault, including the section nearest to the project site, are contained within an Alquist-Priolo Earthquake Fault Zone. This zone extends approximately 500 feet on either side of the fault. The California Geological Survey (formerly the California Division of Mines and Geology) has established Alquist-Priolo Special Study Zones around faults identified by the State Geologist as being active. The Alquist-Priolo Special Studies Zone Act limits development along the surface trace of active faults to reduce the potential for structural damage and/or injury due to fault rupture. In addition, the active Palos Verdes Fault is located approximately 8 miles southwest of the site (CGS 2007, 2010). In addition, the project would not exacerbate the potential for fault rupture to occur, or directly or indirectly cause potential substantial adverse effects involving rupture of a known earthquake fault. Therefore, no impacts would occur.

ii) Strong seismic ground shaking?

Less-Than-Significant Impact. Haynes is located within the seismically active Southern California region and, as with all locations within the area, is potentially subject to strong seismically induced ground shaking. Two major active earthquake faults are located in the vicinity of Haynes. The Palos Verdes Fault is located approximately 8 miles southwest of the site at its closest point, and the Newport–Inglewood Fault is located approximately 3,000 feet southwest of the site at its closest point. Numerous other active faults are located within a 50-mile radius of the project site (CGS 2010; City of Long Beach 1988).

The proposed project would include filling 2,150 feet of the Haynes Intake Channel. The proposed project would not exacerbate the potential for seismic ground shaking to occur and would not directly or indirectly cause substantial adverse effects involving strong seismic ground shaking. As a result, impacts would be less than significant.

iii) Seismic-related ground failure, including liquefaction?

Less-Than-Significant Impact. Haynes would be subject to seismic-related ground failure related to liquefaction (CDMG 1999; City of Long Beach 2006). The soil at the site consists of marine tidal deposits and alluvial deposits. These deposits include layers of sand and silt below the groundwater table, which may be present at approximately 4 feet below the ground surface in some locations. Such conditions are generally conducive to liquefaction. The California Geological Survey indicates that the project site is located in an area with historic occurrences of liquefaction, or local geological, geotechnical, and groundwater conditions indicate a potential for permanent ground displacements (CDMG 1999). However, the proposed backfilling of the Haynes Intake Channel within the existing Haynes boundaries would not exacerbate the potential for liquefaction. Further, the project would not increase exposure of people or structures to substantial adverse effects, including the risk from seismic-related ground failure such as liquefaction, because the project does not involve the construction of any new structures. As a result, impacts would be less than significant.

iv) Landslides?

No Impact. The project site and surrounding area are flat, and the potential for landslides is minimal. No landslide hazards have been mapped in the vicinity of the site (CDMG 1998). Therefore, the project would result in no impact related to landslides.

b) Would the project result in substantial soil erosion or the loss of topsoil?

Less-Than-Significant Impact. The proposed project would completely fill 2,150 feet of the Haynes Intake Channel within the existing Haynes property. The project site is located in an area that has been substantially altered by prior grading, excavations, and construction. Channel filling activities would result in temporary soil disturbance. However, filling activities would comply with all applicable state and local regulations for erosion control. The project site is larger than 1 acre and would be subject to NPDES Construction General Permit (CGP) requirements. Earthwork would be performed in accordance with, at a minimum, the applicable sections of the City grading codes, the latest edition of the Standard Specifications for Public Works Construction (BNI Publications Inc. 2018), and recommendations of the geotechnical engineer of record and/or the LADWP Soils and Geology Group.

Filling activities would incorporate BMP-HYD-1 through BMP-HYD-3 (see Section 2.5 of this IS/MND), which are designed to prevent erosion and siltation. No long-term erosion impacts would occur because the site would be covered by concrete and there would be no exposure of soils on the site such that substantial soil erosion or loss of topsoil would occur. Therefore, short-term and long-term impacts associated with erosion would be less than significant.

c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less-Than-Significant Impact. As previously discussed in Sections 3.7(a)(ii) and 3.7(a)(iii), the site is located in the seismically active Southern California region and could be subject to strong seismically induced ground movement. In the absence of proper geotechnical engineering during channel backfill design and construction, liquefaction, lateral spreading, subsidence, differential settlement, and soil collapse could occur as a result of the project. However, earthwork would be performed in accordance with, at a minimum, the applicable sections of the City grading codes, the latest edition of the Standard Specifications for Public Works Construction (BNI Publications Inc. 2018), and recommendations of the geotechnical engineer of record and/or the LADWP Soils and Geology Group. As a result, impacts would be less than significant.

d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

No Impact. The project site is located in an area that has been substantially altered by prior grading, excavations, and construction. The project site is located on urban land with underlying fill and alluvial deposits, which are not expansive. In addition, the proposed project would not include construction of new buildings, the foundations of which could be adversely impacted by expansive soil, and therefore would not create direct or indirect risks to life or property. Therefore, no impacts would occur.

e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. Haynes is connected to the municipal sewer system. The proposed project would not increase the number of personnel on site or require an expansion of an existing wastewater treatment facility for sanitary waste purposes. No septic tanks or alternative wastewater disposal systems would be included as part of the proposed project. Therefore, no impacts would occur.

f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

No Impact. The project site is located in the City of Long Beach, within the flat-lying areas east of the San Gabriel River. In this area, surface-mapped sedimentary deposits derived as alluvial deposits from the San Gabriel Mountains to the north were transported to their current location by the San Gabriel River to the west (McLeod 2016; Morton and Miller 1981; Morton et al. 1976). The entire project site is mapped as younger Quaternary alluvium, consisting of alluvial gravel and sand, according to published mapping by Morton and Miller (1981) and Morton et al. (1976). These Holocene, or Recent, deposits presumably overlie older Pleistocene, or Ice Age, deposits at an unknown depth (McLeod 2016; Morton and Miller 1981; Morton et al. 1976). The coarse-grained younger alluvial deposits have a low paleontological resource sensitivity. However, older, finer-grained Pleistocene age deposits in this area have produced scientifically significant vertebrates and have a moderate to high paleontological resource sensitivity (McLeod 2016).

Past excavation and trenching activities in the area surrounding the project site have encountered paleontological resources in older Quaternary alluvial deposits. According to the records search results received from the Natural History Museum of Los Angeles County (LACM), the closest fossil locality to the project site within older Quaternary alluvial deposits is located west-northwest of the project site, south of 7th Street and east of SR-1. This locality, LACM 3757, yielded a diverse assemblage of fossilized cartilaginous fish (e.g., ray, skate, and shark), reptiles (e.g., turtle), birds (e.g., duck and loon), and mammals (e.g., dog, sea otter, horse, camel, and gopher) (McLeod 2016). A specimen of fossil mammoth was recovered from locality LACM 6746 farther west-northwest of the project site, along 7th Street and west of SR-1 close to the surface (McLeod 2016). Additional localities are documented in the vicinity of the beach or on the beach. These include locality LACM 2031, which produced a fossil bison at approximately 25 feet from the top of the bluff (McLeod 2016). At approximately 55 feet below the surface, near the parking lot at Bluff Park, a marine vertebrate fossil assemblage was recovered, yielding a variety of cartilaginous and bony fishes, as well as undetermined mammalian remains (McLeod 2016). Across from Bixby Park, LACM 1005 yielded fossil specimens of mammoth and sloth at a depth of approximately 60 feet below the ground surface (McLeod 2016).

No paleontological resources were identified within the project site as a result of the institutional records search or desktop geological review. Furthermore, the project site is located within an area that has been previously developed and is underlain by fill materials, at least in part. At the maximum 10-foot depth of excavation required for the project, older Pleistocene age deposits are not anticipated, and as such, unique paleontological resources or geologic features are unlikely to be encountered. Therefore, there would be no impact to paleontological resources or unique geological features.

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3.8 Greenhouse Gas Emissions

	Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			\boxtimes	
b)	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			\boxtimes	

a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less-Than-Significant Impact. Climate change refers to any significant change in measures of climate, such as temperature, precipitation, or wind patterns, lasting for an extended time (decades or longer). The Earth's temperature depends on the balance between energy entering and leaving the planet's system, and many factors (natural and human) can cause changes in Earth's energy balance. The greenhouse effect is the trapping and build-up of heat in the atmosphere (troposphere) near the Earth's surface. The greenhouse effect is a natural process that contributes to regulating the Earth's temperature, and it creates a livable environment on Earth. Human activities that emit additional GHGs to the atmosphere increase the amount of infrared radiation that gets absorbed before escaping into space, thus enhancing the greenhouse effect and causing the Earth's surface temperature to rise. Global climate change is a cumulative impact; a project contributes to this impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. Thus, GHG impacts are recognized exclusively as cumulative impacts (CAPCOA 2008).

A GHG is any gas that absorbs infrared radiation in the atmosphere; in other words, GHGs trap heat in the atmosphere. As defined in California Health and Safety Code Section 38505(g) for purposes of administering many of the state's primary GHG emissions reduction programs, GHGs include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃) (see also 14 CCR 15364.5). The three GHGs evaluated herein are CO₂, CH₄, and N₂O.

Emissions of HFCs, PFCs, SF₆, and NF₃ are generally associated with industrial activities, including the manufacturing of electrical components, heavy-duty air conditioning units, and insulation of electrical transmission equipment (substations, power lines, and switchgears). Therefore, emissions of these GHGs were not evaluated or estimated in this analysis because the project would not include these activities or components and would not generate HFCs, PFCs, SF₆, or NF₃ in measurable quantities.

Gases in the atmosphere can contribute to climate change both directly and indirectly.⁷ The Intergovernmental Panel on Climate Change developed the global warming potential (GWP) concept to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The reference gas used is CO₂; therefore, GWP-weighted emissions are measured in metric tons (MT) of CO₂ equivalent (CO₂e). Consistent with CalEEMod Version 2016.3.2, this GHG emissions analysis assumed the GWP for CH₄ is 25 MT CO₂e (emissions of 1 MT of CH₄ are equivalent to emissions of 25 MT of CO₂), and the GWP for N₂O is 298 MT CO₂e, based on the Intergovernmental Panel on Climate Change Fourth Assessment Report (IPCC 2007).

As discussed in Section 3.3, Air Quality, of this IS/MND, the project is located within the jurisdictional boundaries of SCAQMD. In October 2008, SCAQMD proposed recommended numeric CEQA significance thresholds for GHG emissions for lead agencies to use in assessing GHG impacts of residential and commercial development projects as presented in its Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold (SCAQMD 2008). This document, which builds on the previous guidance prepared by the California Air Pollution Control Officers Association, explored various approaches for establishing a significance threshold for GHG emissions. The draft interim CEQA thresholds guidance document was not adopted or approved by the SCAQMD Governing Board. However, in December 2008, SCAQMD adopted an interim 10,000 MT CO₂e per-year screening level threshold for stationary source/industrial projects for which the SCAQMD is the lead agency (see SCAQMD Resolution No. 08-35, December 5, 2008).

SCAQMD formed a GHG CEQA Significance Threshold Working Group to work with SCAQMD staff on developing GHG CEQA significance thresholds until statewide significance thresholds or guidelines are established. From December 2008 to September 2010, SCAQMD hosted working group meetings and revised the draft threshold proposal several times, although it did not officially provide these proposals in a subsequent document. SCAQMD has continued to consider adoption of significance thresholds for residential and general land use development projects. The most recent proposal, issued in September 2010, uses the following tiered approach to evaluate potential GHG impacts from various uses (SCAQMD 2010):

Tier 1. Determine if CEQA categorical exemptions are applicable. If not, move to Tier 2.

⁷ Direct effects occur when the gas itself absorbs radiation. Indirect radiative forcing occurs when chemical transformations of the substance produce other GHGs, when a gas influences the atmospheric lifetimes of other gases, and/or when a gas affects atmospheric processes that alter the radiative balance of the Earth (e.g., affect cloud formation or albedo) (EPA 2017).

- **Tier 2.** Consider whether or not the proposed project is consistent with a locally adopted GHG reduction plan that has gone through public hearing and CEQA review, that has an approved inventory, includes monitoring, etc. If not, move to Tier 3.
- **Tier 3.** Consider whether the project generates GHG emissions in excess of screening thresholds for individual land uses. The 10,000 MT CO₂e per-year threshold for industrial uses would be recommended for use by all lead agencies. Under option 1, separate screening thresholds are proposed for residential projects (3,500 MT CO₂e per year), commercial projects (1,400 MT CO₂e per year), and mixed-use projects (3,000 MT CO₂e per year). Under option 2, a single numerical screening threshold of 3,000 MT CO₂e per year would be used for all non-industrial projects. If the project generates emissions in excess of the applicable screening threshold, move to Tier 4.
- **Tier 4.** Consider whether the project generates GHG emissions in excess of applicable performance standards for the project service population (population plus employment). The efficiency targets were established based on the goal of Assembly Bill (AB) 32 to reduce statewide GHG emissions to 1990 levels by 2020. The 2020 efficiency targets are 4.8 MT CO₂e per-service population for project-level analyses and 6.6 MT CO₂e per-service population for plan-level analyses. If the project generates emissions in excess of the applicable efficiency targets, move to Tier 5.
- **Tier 5.** Consider the implementation of CEQA mitigation (including the purchase of GHG offsets) to reduce the project efficiency target to Tier 4 levels.

Section 15064.7(c) of the CEQA Guidelines specifies that "[w]hen adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence." The CEQA Guidelines do not prescribe specific methodologies for performing an assessment, establish specific thresholds of significance, or mandate specific mitigation measures. Rather, the CEQA Guidelines emphasize the lead agency's discretion to determine the appropriate methodologies and thresholds of significance that are consistent with the manner in which other impact areas are handled in CEQA (CNRA 2009).

To determine the project's potential to generate GHG emissions that would have a significant impact on the environment, the project's GHG emissions were compared to the non-industrial land project quantitative threshold of 3,000 MT CO₂e per year. Because the project does not include operational sources of emissions, and because the project does not conform to the standard land use types, the 3,000 MT CO₂e per year threshold, which was identified under Tier 3 Option 1, was applied herein. Per the SCAQMD guidance, construction emissions should be amortized over the operational life of the project, which is assumed to be 30 years (SCAQMD 2008). This impact analysis, therefore, compares amortized construction emissions to the proposed SCAQMD threshold of 3,000 MT CO₂e per year.

Construction Emissions

Construction of the project would result in GHG emissions primarily associated with the use of off-road construction equipment, on-road trucks, and worker vehicles. A depiction of expected construction schedules (including information regarding phasing, equipment used during each phase, truck trips, and worker vehicle trips) assumed for the purposes of emissions estimation is provided in Table 3, Construction Scenario Assumptions (see Section 3.3), and in Appendix A. On-site sources of GHG emissions include off-road equipment; off-site sources include trucks and worker vehicles. Table 7 presents construction GHG emissions for the project from on-site and off-site emissions sources.

	CO ₂	CH ₄	N₂O	CO ₂ e		
Year		Metric Tons per Year				
2021	75.20	0.01	0.00	75.51		
2022	941.04	0.17	0.00	945.31		
2023	81.26	0.02	0.00	81.64		
2030	1,257.34	0.06	0.00	1,257.68		
2031	1,915.87	0.10	0.00	1,918.38		
2032	1,113.26	0.06	0.00	1,114.72		
Total	5,383.97	0.42	0.00	5,393.24		
		Amortized Const	ruction Emissions	179.77		

Table 7 Estimated Annual Construction Greenhouse Gas Emissions

Source: See Appendix A for complete results.

Notes: CO₂ = carbon dioxide; CH₄ = methane; N₂O = nitrous oxide; CO₂e = carbon dioxide equivalent.

As shown in Table 7, amortized over 30 years, total construction GHG emissions would be approximately 179.77 MT CO₂e per year.

Operational Emissions

Once project construction is complete, no operational activities associated with the proposed project would occur (no routine daily equipment operation or vehicle trips would be required). Because the project would not result in any long-term operational activities, there would be no potential GHG emissions impacts associated with operational GHG emissions.

As shown in Table 7, amortized project-generated construction emissions would not exceed the 3,000 MT CO₂e per year SCAQMD threshold. Therefore, GHG emissions impacts would be less than significant.

b) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less-Than-Significant Impact. The proposed project would result in less-than-significant impacts related to conflicts with GHG emission reduction plans, for the reasons described in the following paragraphs.

Consistency with the Scoping Plan

The California Air Resources Board (CARB) Scoping Plan, approved by CARB in 2008 and updated in 2014 and 2017, provides a framework for actions to reduce California's GHG emissions and requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs. The Scoping Plan is not directly applicable to specific projects, nor is it intended to be used for project-level evaluations.⁸ Under the Scoping Plan, however, there are several state regulatory measures aimed at the identification and reduction of GHG emissions. CARB and other state agencies have adopted many of the measures identified in the Scoping Plan. Most of these measures focus on area-source emissions (e.g., energy usage, high-GWP GHGs in consumer products) and changes to the vehicle fleet (i.e., hybrid, electric, and more fuel-efficient vehicles) and associated fuels (e.g., Low Carbon Fuel Standard), among others.

Consistency with the 2016 Regional Transportation Plan/Sustainable Communities Strategy

The Southern California Association of Governments (SCAG) 2016 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) is a regional growth-management strategy that targets per capita GHG reduction from passenger vehicles and light-duty trucks in the Southern California region. The 2016 RTP/SCS incorporates local land use projections and circulation networks in city and county general plans. The 2016 RTP/SCS is not directly applicable to the project because the purpose of the 2016 RTP/SCS is to provide direction and guidance by making the best transportation and land use choices for future development. The proposed project would not conflict with implementation of the strategies identified in the 2016 RTP/SCS that would reduce GHG emissions.

Consistency with Senate Bill 32 and Executive Order S-3-05

The project would not impede the attainment of the GHG reduction goals for 2030 or 2050 identified in Senate Bill (SB) 32 and Executive Order (EO) S-3-05, respectively. EO S-3-05 establishes the following goals: GHG emissions should be reduced to 2000 levels by 2010, to 1990 levels by 2020, and to 80% below 1990 levels by 2050. SB 32 establishes a statewide GHG emissions reduction target whereby CARB, in adopting rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions, shall

⁸ The Final Statement of Reasons for the amendments to the CEQA Guidelines reiterates the statement in the Initial Statement of Reasons that "[t]he Scoping Plan may not be appropriate for use in determining the significance of individual projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan" (CNRA 2009).

ensure that statewide GHG emissions are reduced to at least 40% below 1990 levels by December 31, 2030. While there are no established protocols or thresholds of significance for that future year analysis, CARB forecasts that compliance with the current Scoping Plan puts the state on a trajectory of meeting these long-term GHG goals, although the specific path to compliance is unknown (CARB 2014).

CARB has expressed optimism with regard to both the 2030 and 2050 goals. It states in the First Update to the Climate Change Scoping Plan that "California is on track to meet the near-term 2020 GHG emissions limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32" (CARB 2014). With regard to the 2050 target for reducing GHG emissions to 80% below 1990 levels, the First Update to the Climate Change Scoping Plan states that the level of reduction is achievable in California (CARB 2014). CARB believes that the state is on a trajectory to meet the 2030 and 2050 GHG reduction targets set forth in AB 32, SB 32, and EO S-3-05. This is confirmed in the 2017 Scoping Plan, which states (CARB 2017):

The Scoping Plan builds upon the successful framework established by the Initial Scoping Plan and First Update, while identifying new, technologically feasible and cost-effective strategies to ensure that California meets its GHG reduction targets in a way that promotes and rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health, including in disadvantaged communities.

The project would not interfere with implementation of any of the previously described GHG reduction goals for 2030 or 2050 because the project would not exceed SCAQMD's recommended threshold of 3,000 MT CO₂e per year (SCAQMD 2008). Because the project would not exceed the threshold, this analysis provides support for the conclusion that the project would not impede the state's trajectory toward the previously described statewide GHG reduction goals for 2030 or 2050.

The project's consistency with the state's Scoping Plan would assist in meeting the City's contribution to GHG emission reduction targets in California. With respect to future GHG targets under SB 32 and EO S-3-05, CARB has also made clear its legal interpretation that it has the requisite authority to adopt whatever regulations are necessary, beyond the AB 32 horizon year of 2020, to meet the SB 32 40% reduction target by 2030 and the EO S-3-05 80% reduction target by 2050. This legal interpretation by an expert agency provides evidence that future regulations will be adopted to continue the trajectory toward meeting these future GHG targets.

Based on the considerations previously outlined, the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. This impact would be less than significant.

References

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- IPCC (Intergovernmental Panel on Climate Change). 2007. IPCC Fourth Assessment Synthesis of Scientific-Technical Information Relevant to Interpreting Article 2 of the U.N. Framework Convention on Climate Change.
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- SCAQMD. 2010. "Greenhouse Gas CEQA Significance Threshold Stakeholder Working Group Meeting #15." September 28, 2010. http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-mainpresentation.pdf?sfvrsn=2.

3.9 Hazards and Hazardous Materials

	Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?		\boxtimes		
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				
d)	Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				
e)	For a project located within 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 result in a safety hazard or excessive noise for people residing or working in the project area?				
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			\boxtimes	
g)	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				\boxtimes

Information regarding potential environmental impacts at the proposed project site was obtained via a regulatory records review conducted by Environmental Data Resources (EDR) and review of existing and available sediment

and water quality data for the Haynes Intake Channel and environs. Additional information specific to chemical storage and use at Haynes was included in the 2017 IS/MND prepared for the decommissioning of Units 3 through 6 (LADWP 2017).

Regulatory Records Review

A search of regulatory records was conducted by EDR on March 25, 2019 (Appendix D, EDR Radius Map Reports, to this IS/MND). This search identified the target property as a portion of the Haynes Intake Channel, with an address of 6800 Westminster Boulevard. A second search of regulatory records was conducted on September 25, 2019 (see Appendix D). The second search identified the target property as the entire intake channel within the Haynes property, to the south side of Westminster Boulevard, with an address of 6801 East 2nd Street. Both searches were conducted for the target property and included up to a 1-mile search radius as defined in the records review requirements of the ASTM E1527-13 standard. The EDR reports provide a listing of sites within the defined search radii that are listed on one or more environmental regulatory databases. Information in these listings includes the site name, location of the site relative to the project site, regulatory database listing, and the status of the listed site. This section discusses the combined findings of both EDR reports.

The first EDR report identified 28 listings; 80 additional listings were identified in the second EDR report. Many sites were listed more than once. For example, the addresses associated with the project site (6800 Westminster Boulevard, 6801 Westminster Boulevard, and 6801 2nd Street) account for 73 of the 108 total listings. The majority of the 73 listings were for Haynes, the Long Beach Desal Prototype, or the Alamitos Barrier, which are likely due to activities on the land adjacent to the project site. However, as Haynes and the Long Beach Desal Prototype project used water from the project site, these listings could be on or adjacent to the project site. The listings and their proximity to the project site are as follows:

- 73 listings were identified on or adjacent to the proposed project site. These are evaluated in Table 8 (note that there are multiple listings per site name).
- 10 listings were identified within a 0.25-mile radius of the project site.
- 8 listings were identified within a 0.25-mile to 0.5-mile radius of the project site.
- 17 listings were identified within a 0.5-mile to 1-mile radius of the project site.

Of the 35 listings other than on the project site or adjacent to the project site, 12 were identified in databases that are used for permitting, inventory, and regulatory compliance purposes, and do not indicate a release of hazardous substances or petroleum products to the environment. The remaining listings were identified in regulatory databases that identify sites with known or suspected environmental contamination. The listings, the distance from the project site, and known environmental conditions (e.g., groundwater depth and flow direction) were reviewed and it was determined that the other listed sites are unlikely to have impacted the environmental conditions of the project site.

Table 8 Project Site or Adjacent Regulatory Database Listings – 6801 2nd Street or 6800–6801 Westminster Boulevard

Site Name	Database(s)	Details	Identified Environmental Concern
Tank E Area, Haynes	ICIS FINDS ECHO CA ENF CA WDS CA CIWQS	The Tank E Area is adjacent to the Haynes Intake Channel and is identified in multiple databases. Information was reviewed in the EDR Report about the Tank E Area. As per the EDR Report, the site held NPDES stormwater permits. The receiving water for the stormwater is the Los Alamitos Channel.	No
Haynes Generating Station	RCRA-TSDF, RCRA- LQG, CA UST, Hist UST, CA WMUDS/SWAT, CA WDS, CA Toxic Pits NPDES, AST, EMI, ENF, CHMIRS, CIWQS, CERS, RMP, FINDS, ECHO, ICIS	The facility, which surrounds and encompasses the project site, generated and treated wastes and reported asbestos-related releases. The facility stored ammonia in aboveground storage. The facility maintained diesel product, gasoline, and waste oil USTs. The facility maintained NPDES permits related to stormwater.	No known subsurface release. The presence of USTs indicates the potential for releases.
LA Department of Water and Power	CA HWP, FINDS, RCRA-LQG, RCRA- TSDF, HAZNET	The facility, which surrounds and encompasses the project site, generated and treated wastes.	No
Haynes 5 And 6 Repowering Project	RCRA-SQG, HAZNET, FINDS, ECHO	Units 5 and 6 are located adjacent to northern end of project site. Wastes, including solvents, were generated in this area of the facility.	No
None given	ERNS	Oil spill to storm drain (500 gallons) in 2016, ammonia spill (30–50 gallons) in 2011, and ammonia spill into secondary containment (100 gallons) in 2003. The spills were mitigated at the time.	There is no known impact to the intake channel/project site.
Alamitos Barrier	NPDES,CIWQS, CERS, FINDS, ECHO	The listings are associated with NPDES permits.	No
None given	CHMIRS	Asbestos-related releases were reported.	No
Haynes Gen. Repowering Project	FINDS, CERS	The listings are associated with NPDES permits.	No
Haynes Tank Farm	CERS, NPDES	The listings are associated with NPDES permits.	No
Tank F and G Area Haynes Plant Long Beach	FINDS,ICIS,ECHO	The listings are associated with NPDES permits.	No

Table 8 Project Site or Adjacent Regulatory Database Listings – 6801 2nd Street or 6800–6801Westminster Boulevard

Site Name	Database(s)	Details	Identified Environmental Concern
Haynes Tank Farm Tanks A-J	FINDS	Administrative listing.	No
Long Beach Prototype Seawater Desalination Research	CERS, FINDS,ICIS, ECHO, ENF,CIWQS, WDS	The Long Beach Desal Facility operated adjacent to the project site, but potentially collected water from the project site. The listings are associated with NPDES permits.	No
Groome Industrial Service	HAZNET,WDS,CHMIRS	500 gallons of oil were spilled to storm drain containment in 2016. The release was secured.	No
Tank F,G Area, Haynes Plant, Long Beach	CERS	The listings are associated with NPDES permits.	No
Berkel & Co Contractor Inc	HAZNET	The listing is associated with waste oil storage.	No
Tank H, J Area, Haynes Plant, Long Beach	CERS, WDS, UST,WDS,WMUDS/ SWAT, ENF,CIWQS	The listings are associated with NPDES permits. Violations of effluent limits were reported.	No
LADW&P-Haynes Steam	ICIS,US AIRS	The listing is associated with air emissions.	No
Haynes Generating Station Trench Work	NPDES,CHMIRS	Asbestos-related releases were reported.	No

Notes: ICIS = Integrated Compliance Information System; FINDS = Facility Index System; ECHO = Enforcement and Compliance History Online; CA ENF = State Enforcement Action Listing; CA WDS = State Waste Discharge System; CA CIWQS = California Integrated Water Quality System; EDR = Environmental Data Resources; NPDES = National Pollutant Discharge Elimination System; RCRA-SQG = Small Quantity Generator; RCRA-LQG = Large Quantity Generator; RCRA-TSDF = Treatment, Storage, Disposal Facility; RWQCB = Regional Water Quality Control Board, UST = underground storage tank; ERNS = Emergency Response Notification System; AST = aboveground storage tank; EMI = Emissions Inventory Data; ENF = Enforcement Action Listing; CHMIRS = California Hazardous Material Incident Report System; CERS = CalEPA Regulated Site Portal Data; HWP = Envirostor Permitted Facilities Listing; RMP = Risk Management Plan; US AIRS = Aerometric Information Retrieval System; WMUDS/SWAT = Waste Management Unit Database

Based on the proposed project components and detailed review of the EDR Report, there are no known environmental impacts to the project site from hazardous wastes and materials; however, a potential exists for subsurface impacts due to the known surface oil spills and the presence of underground storage tanks.

Existing Water Quality and Sediment Data

Available reports were reviewed regarding existing water quality and sediment data for the proposed project site or vicinity. The source water for the Haynes Intake Channel is Alamitos Bay. Most of the available environmental data were for Alamitos Bay; however, water quality samples were collected from the Haynes Intake Channel in 2019.

Seawater typically has a pH around 8.2, although this can range from 7.5 to 8.5. In the Haynes Intake Channel, across all years and surveys, there was an average pH of 8.07 (Appendix B). As noted in Section 3.10, Hydrology and Water Quality, a dewatering plan for the project shall be designed and implemented such that discharges (1) meet water quality effluent limitations specified in the RWQCB Basin Plan, CWA Section 401 Water Quality Certification Order for the project (to be obtained), and/or NPDES dewatering permit (Order No. R4-2013-0095, General NPDES Permit No. CAG994004), as appropriate (BMP-HYD-1; see Section 2.5 for full text of BMPs).

Review of the Supplemental Sampling and Analysis Report for the Alamitos Bay Marina Basin, prepared by Anchor in 2009 (City of Long Beach 2009), indicated elevated mercury concentrations in dredge materials in portions of Basin 1 of Alamitos Bay, when compared to the soluble threshold limit concentration (STLC). The report included a recommendation to remove the dredge materials from the site and dispose of the materials at an approved landfill facility (City of Long Beach 2009).

Additional analysis of sediment data in Alamitos Bay was included in the Environmental Impact Statement for the Los Angeles Regional Dredge Material Management Plan, December 2008 (USACE 2008). The data indicated detections of metals, polychlorinated biphenyls (PCBs), pesticides, and polycyclic aromatic hydrocarbons (PAHs) in the sediment in Alamitos Bay. Concentrations of these components were generally lower than hazardous waste levels (STLC and total threshold limit concentration [TTLC]). There could be a possible exceedance of the STLC levels for chromium and lead, as the total chromium and lead concentrations were greater than 10 times the STLC limits (STLC analysis was not conducted). Concentrations of PAHs were detected but were below marine toxicity levels (Effects Range-Low [ER-L] and Effects Range-Median [ER-M]) and hazardous waste levels. Dichlorodiphenyltrichloroethane (DDT) and derivatives were detected but were generally lower than marine toxicity levels. PCB and dichlorodiphenyldichloroethylene (DDE) detections exceeded ER-L levels but were below ER-M levels (USACE 2008). As per Southern California Bight Studies (2003 and 2008, as cited in City of Long Beach 2016), the sediment quality data indicated chlordane concentrations higher than ER-M levels and DDT and metals (copper, lead, and zinc) concentrations above ER-L levels (City of Long Beach 2016).

The sediment quality data in Alamitos Bay can be used as an indicator of sediment quality in the Haynes Intake Channel, due to the lack of data for the Haynes Intake Channel. The data for Alamitos Bay indicate that the sediment to be removed from the Haynes Intake Channel under the proposed project possibly contains concentrations of various contaminants greater than hazardous waste levels and marine toxicity levels.

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less-Than-Significant Impact with Mitigation Incorporated. A variety of hazardous substances and wastes would be transported, stored, used, and generated on the project site during the proposed project. These would include fuels for machinery and vehicles, new and used motor oils, and storage containers and applicators containing such materials. The project would involve export of 8,800 CY of over-excavated fill during Phase I,

and 31,000 CY of over-excavated soil during Phase II, for a total of 39,800 CY of over-excavated soil to be hauled off site over the course of project construction.

Potential hazardous wastes would be generated during the proposed project as a result of the proposed excavation activities. Additionally, if the proposed project includes removal of the pipelines that run across the project site from the tank farm to the Haynes generation units, additional wastes from the pipelines would be generated. These wastes could include potential hazardous building materials, such a lead paint, on the pipelines and potential contents of the pipelines (likely fuel or oil).

If not transported, used, or disposed of in a safe manner, hazardous materials used or generated represent a potential threat to the public and the environment. However, these materials would be transported, used, and disposed of in accordance with all federal, state, and local laws regulating the management and use of hazardous materials. For example, hazardous materials would not be disposed of or released onto the ground or into the underlying groundwater or any surface water during the proposed project, and completely enclosed containment would be provided for all refuse generated on the project site. Furthermore, all construction waste, including trash, litter, garbage, solid waste, petroleum products, and any other potentially hazardous materials, would be removed and transported to a permitted waste facility for treatment, storage, or disposal.

To ensure proper handling of generated waste, specifically, soil and sediment excavated and any pipelines removed as part of the proposed project, the following mitigation measures are provided and would be implemented to ensure that potential impacts are reduced to less than significant:

MM-HAZ-1 Soil/Sediment Management Plan. A Soil/Sediment Management Plan (SMP) shall be developed and implemented prior to excavation activities. The SMP shall include a discussion of the anticipated/possible soil/sediment concentrations based on sediment sampling data from Alamitos Bay. The SMP will also require sampling to be conducted to characterize the excavated soil and sediment from the Haynes Intake Channel; the decision process to be used to characterize the waste based on the sampling conducted; the proposed management of the soil/sediment, including discussion of material segregation, temporary storage locations, containers, and labeling; and possible disposal facilities/locations.

In addition, the SMP shall also include a discussion of adjacent chemical storage areas that could potentially impact the site area; these include the adjacent tank farm, the pipelines that cross the project site, and former chemical storage areas associated with the adjacent Haynes Generating Station (Haynes) generation units. While no known releases from these chemical and fuel storage areas have occurred, there is a potential that potential releases from these areas could have impacted the project site. The SMP would include strategies for identification and management of contaminated soil, if encountered during excavation.

Finally, the SMP will also discuss procedures to be implemented if a sheen is observed in the Haynes Intake Channel/dewatering water during the proposed project.

A project-specific Health and Safety Plan shall be prepared in accordance with the Occupational Safety and Health Administration (OSHA) standards, included in the SMP, and implemented during excavation activities. Copies of the SMP shall be maintained on site during excavation activities at the project site. All workers on the project site shall be familiarized with the SMP and Health and Safety Plan.

MM-HAZ-2 Waste Management Plan. A Waste Management Plan (WMP) shall be developed and implemented during construction activities. The WMP shall include a discussion of the anticipated non-soil/sediment wastes that may be generated during the proposed project, the locations of these potential wastes, details of special handling, proposed storage locations, containers and labeling, testing for waste characterization, and possible disposal/recycling facilities. Copies of the WMP shall be maintained on site during construction and removal of materials from the project site. All workers on the project site shall be familiarized with the WMP.

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less-Than-Significant Impact with Mitigation Incorporated. As discussed in Section 3.9(a), a variety of hazardous substances and wastes would be stored, used, and generated on the project site during the proposed project. Accidental spills, leaks, fires, explosions, or pressure releases involving hazardous materials represent a potential threat to human health and the environment if not properly treated. Accident prevention and containment would be the responsibility of the construction contractors, and provisions to properly manage hazardous substances and wastes are typically included in contract specifications. Additionally, risk of upset would be minimized through the handling, documentation, and disposal of hazardous materials and wastes in accordance with federal, state, and local laws and regulations.

The plans included in MM-HAZ-1 and MM-HAZ-2 would be implemented to identify and properly manage hazardous materials such that potential releases to the environment are properly controlled, reducing potential impacts to less than significant.

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. The nearest schools to Haynes are Rosie the Riveter Charter High School (Long Beach Unified School District), which is approximately 0.5 miles to the west; Kettering Elementary School (Long Beach Unified School District), which is approximately 0.7 miles to the west; Hill Middle School (Long Beach Unified School District), which is approximately 1 mile to the northwest; and Hopkinson Elementary School (Los Alamitos Unified School District), which is approximately 1 mile to the northwest. No schools are located within one-quarter mile of Haynes and no impact would occur.

d) Would the project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. Government Code Section 65962.5 requires the California Environmental Protection Agency to compile and update the hazardous waste and substances sites list (Cortese List). The Cortese List was designed to comply with Government Code Section 65962.5. While the Cortese List is no longer maintained as a single list, the following databases provide information regarding sites identified as meeting the Cortese List requirements:

- List of Hazardous Waste and Substances sites from the California Department of Toxic Substances Control (DTSC) EnviroStor database (California Health and Safety Code Sections 25220, 25242, 25356, and 116395)
- List of Leaking Underground Storage Tank Sites by County and Fiscal Year from the SWRCB GeoTracker database (California Health and Safety Code Section 25295)
- 3) List of solid waste disposal sites identified by SWRCB with waste constituents above hazardous waste levels outside the waste management unit (California Water Code Section 13273[e] and 14 CCR 18051)
- List of "active" Cease and Desist Orders and Cleanup and Abatement Orders from SWRCB (California Water Code Sections 13301 and 13304)
- 5) List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the California Health and Safety Code, identified by DTSC

A review of the facilities and/or sites identified in these five databases was performed to determine whether the proposed project site is on the Cortese List.
Hazardous Waste and Substances Site list

On April 2, 2019, the Hazardous Waste and Substances site list on DTSC's EnviroStor online database was accessed. The proposed project site is not listed on the DTSC EnviroStor database. Additionally, no adjacent sites (including within Haynes) were listed in the database (DTSC 2019).

Leaking Underground Storage Tank Sites

On April 2, 2019, the SWRCB's GeoTracker database was accessed to obtain the list of leaking underground storage tank sites located in the vicinity of the proposed project. The proposed project site was not listed in the GeoTracker database (SWRCB 2015a).

The nearest listed site was the Golden Rain Foundation at 1280 Golden Rain, approximately 500 feet east of the proposed project site. A release of waste oil (motor, hydraulic, and lubricating oil) occurred at this site; however, the release case was closed in 1987 (SWRCB 2015b). It is unlikely that this site has impacted the environmental conditions at the proposed project site.

Solid Waste Disposal Sites

On April 2, 2019, the list of solid waste disposal sites identified by SWRCB with waste constituents above hazardous waste levels outside the waste management unit were accessed. A total of 25 sites were listed in California; however, none of the sites were listed in Long Beach/Seal Beach (CalEPA 2019a).

Active Cease and Desist Orders and/or Cleanup and Abatement Orders

On February 27, 2017, the SWRCB list of active cease and desist orders and cleanup and abatement orders for California was accessed. No sites were listed in Long Beach/Seal Beach (CalEPA 2019b).

Hazardous Waste Facilities Subject to Corrective Action

The California Environmental Protection Agency Cortese List was accessed to obtain information on hazardous waste facilities identified in the Health and Safety Code 25187.5. Facilities identified under Health and Safety Code 25187 are those that DTSC determined required immediate corrective action to "abate imminent or substantial endangerment." Two sites were listed in California. None of the sites listed were within Long Beach/Seal Beach (CalEPA 2019c).

Based on this review, the proposed project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and no impact would occur.

e) For a project located within 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 result in a safety hazard or excessive noise for people residing or working in the project area?

No Impact. The proposed project is not located within an airport land use plan or within 2 miles of a public airport or public use airport. There are no general aviation airports or airstrips in the vicinity of Haynes. Long Beach Airport is located approximately 3.5 miles to the northwest of Haynes. Haynes is located beneath the general approach pattern for Runway 30 and the departure pattern for Runway 12 at Long Beach Airport. However, the approach/departure elevations for aircraft are well above Haynes such that any project-related construction would not represent a potential obstruction to air navigation. The Joint Forces Training Base, Los Alamitos (a non-public-use airport), is located approximately 2.1 miles to the northeast of Haynes. However, the departure pattern for Runway 22L and the approach pattern for Runway 4R at the Joint Forces Training Base take aircraft at least 1 mile east of Haynes. The proposed project would not interfere with air navigation or contribute to an increased safety hazard for Haynes personnel related to local air operations. No impact would occur.

f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less-Than-Significant Impact. The proposed project would be located in the interior of the existing Haynes site. It would not impair the implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan for any area outside Haynes. Procedures for emergency response and evacuation are provided to all LADWP employees at Haynes. These procedures would be updated as necessary in the Risk Management Plan for Haynes to account for the proposed construction activities.

All personnel involved in the construction activities would also receive training regarding emergency response and evacuation measures at Haynes. Impacts from the proposed project would be less than significant.

g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

No Impact. The proposed project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. According to the City's General Plan Land Use Map (City of Long Beach 2002), the project site and surrounding area are completely developed as an urban environment, and no wildlands exist in or adjacent to the project site. Therefore, no impacts would occur as a result of the project.

References

- CalEPA (California Environmental Protection Agency). 2019a. "Sites Identified with Waste Constituents above Hazardous Waste Levels outside the Waste Management Unit." *Cortese List Data Resources*. CalEPA website. Accessed April 2, 2019. https://calepa.ca.gov/sitecleanup/corteselist/.
- CalEPA. 2019b. "List of 'Active' CDO and CAO from Water Board." [Excel file.] *Cortese List Data Resources.* CalEPA website. Accessed April 2, 2019. https://calepa.ca.gov/sitecleanup/corteselist/.
- CalEPA. 2019c. "Cortese List: Section 65962.5(a)." *Cortese List Data Resources*. CalEPA website. https://calepa.ca.gov/sitecleanup/corteselist/section-65962-5a/.
- City of Long Beach. 2002. General Plan Land Use Map.
- City of Long Beach. 2009. Supplemental Sampling and Analysis Report, Alamitos Bay Marina Basin 1, Anchor QEA. Accessed March 2019. http://www.lbds.info/civica/filebank/blobdload.asp?BlobID=3167.
- City of Long Beach. 2016. City of Long Beach Integrated Monitoring Program, Lower Long Beach Bays Estuaries and Coastal San Pedro Bay Beaches. Kinnetic Laboratories Incorporated.
- DTSC (Department of Toxic Substances Control). 2019. EnviroStor. Accessed April 2, 2019. https://www.envirostor.dtsc.ca.gov/public/.
- LADWP. 2017. Initial Study/Mitigated Negative Declaration, Haynes Generating Station Units 3, 4, 5, and 6 Demolition Project. Los Angeles Department of Water and Power. June 2017.
- SWRCB (State Water Resources Control Board). 2015a. *GeoTracker*. Accessed April 2, 2019. http://geotracker. waterboards.ca.gov/.
- SWRCB. 2015b. Golden Rain Foundation Case Summary. Accessed April 2, 2019. http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0605900135.
- USACE (U.S. Army Corps of Engineers). 2008. Los Angeles Regional Dredge Material Management Plan, Programmatic Environmental Impact Statement (PEIS) Public Draft.

3.10 Hydrology and Water Quality

	Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Violate any water quality standards or waste discharge requirements or otherwise				
	substantially degrade surface or ground water quality?				
b)	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?				
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
	 result in substantial erosion or siltation on or off site; 			\boxtimes	
	 substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site; 				
	 iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or 				
	iv) impede or redirect flood flows?			\square	
d)	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			\boxtimes	
e)	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			\boxtimes	

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less-Than-Significant Impact with Mitigation Incorporated. Short-term impacts to water quality through exceedance of water quality standards, non-conformance with waste discharge requirements, or other means could potentially result from construction activities (e.g., erosion and sedimentation due to land disturbances, uncontained material and equipment storage areas, improper handling of hazardous materials). Similarly, long-term water quality impacts could occur as a result of alteration of drainage patterns and/or changes in impervious surfaces. This discussion generally focuses on the short-term impacts of construction activities and addresses the different types of water quality impacts in terms of the type of construction-related effects, including stormwater runoff from the construction site, management of construction activities and debris, and non-stormwater discharges. Long-term impacts related to changes in topography and impervious surfaces are addressed in Section 3.10(c) because that threshold addresses the potential for alteration of drainage patterns to have adverse effects on erosion and/or flooding.

Stormwater Runoff - Construction

The project would involve filling 2,150 feet of the Haynes Intake Channel with engineered fill, leaving vacant space within the existing Haynes property. As discussed in Section 3.7, Geology and Soils (see Section 3.7[b]), construction activities would result in temporary soil disturbance, which in turn could result in short-term erosion-induced siltation of the adjacent southern portion of the Haynes Intake Channel. In addition, spills or leaks from heavy equipment and machinery, staging areas, or construction areas could enter runoff. Typical pollutants could include incidental spills of petroleum products and hazardous materials from equipment, as well as pollutants such as solvents and cleaning agents that could contain hazardous constituents. Leaks or spills from equipment or inadvertent releases of construction materials could result in water quality degradation if runoff containing the contaminants entered receiving waters in sufficient quantities to exceed water quality objectives.

As discussed in Section 3.7(b), because implementation of the proposed project would require construction activities resulting in a land disturbance of more than 1 acre, LADWP would be required to obtain an NPDES Construction General Permit (CGP) that addresses pollution associated with construction activities. Compliance with the CGP would require LADWP to file a Notice of Intent with SWRCB and to prepare a SWPPP prior to project construction. LADWP, with the contractor, would prepare and implement a site-specific SWPPP. The SWPPP would incorporate BMPs to prevent or reduce, to the greatest extent feasible, adverse impacts to water quality from erosion-induced sedimentation and incidental spills of petroleum-based products and hazardous materials.

A copy of the SWPPP would be kept at the project site and would be available for review on request. The SWPPP would conform to the requirements of the Statewide Construction Storm Water permit and

developed by a Qualified Stormwater Developer (QSD)and implemented by a Qualified Stormwater Practitioner (QSP), using LADWP's SWPPP template, and would include appropriate BMPs related to the proposed project. The following list includes examples of treatment-control BMPs that could be employed during construction (these features would appear as notes on final design plans):

- Silt fences installed along limits of work and/or the project site
- Stockpile containment (e.g., visqueen plastic sheeting, fiber rolls, gravel bags)
- Street sweeping
- Tire washes for equipment
- Runoff control devices (e.g., drainage swales, gravel bag barriers/chevrons, velocity check dams) to be used during the rainy season

These standard procedures, which would be incorporated in accordance with BMP-HYD-2 (see Section 2.5), would prevent construction-related contaminants from reaching the adjacent southern portion of the Haynes Intake Channel. In addition, as discussed in Section 3.9, Hazards and Hazardous Materials, implementation of MM-HAZ-1 (Soil/Sediment Management Plan) and MM-HAZ-2 (Waste Management Plan) would ensure proper handling of potentially contaminated soil and other wastes, such that runoff would not be polluted upon discharge off site. In summary, required compliance with the CGP, including preparation and implementation of a SWPPP, and implementation of BMP-HYD-2, MM-HAZ-1, and MM-HAZ-2 would ensure that short-term water quality impacts resulting from construction-related activities would be less than significant.

Dewatering

Dewatering of the project site would involve pumping the existing seawater in the northern portion of the Haynes Intake Channel over a cofferdam and into the southern portion of the channel. Pumping the upper portions of the water column into the adjacent channel at a low rate would not likely result in increased turbidity of the channel waters. However, the lower portions of the water column and the bottom sediments may contain contaminants. As indicated in Section 3.9 under "Existing Water Quality and Sediment Data," the sediment quality data in Alamitos Bay can be used as an indicator of sediment quality in the Haynes Intake Channel, due to the lack of data for the Haynes Intake Channel. The data for Alamitos Bay indicate that the sediment to be removed from the Haynes Intake Channel under the proposed project possibly contains concentrations of various contaminants greater than hazardous waste levels and marine toxicity levels. In addition, unconsolidated bottom sediments in the lower water column in the Haynes Intake Channel would result in upstream turbidity of channel waters during dewatering activities. Dewatering is covered in BMP-HYD-1 (see Section 2.5) and following this BMP would reduce impacts to less than significant.

In addition, as discussed in Section 3.7, groundwater may be present at a depth of 4 feet below ground surface. The existing Haynes Intake Channel is 27–29 feet deep, indicating that groundwater seepage may be occurring into the channel bottom. If groundwater is present in the channel following seawater dewatering, a temporary dewatering system would be employed to maintain a safe and dry working environment during excavation and construction activities. As indicated in Section 2.6, Discretionary Approvals Required for the Project, project dewatering would occur in association with a groundwater dewatering permit, under Order No. R4-2013-0095 and General NPDES Permit No. CAG994004, if groundwater is encountered subsequent to seawater dewatering. In accordance with this permit, LADWP would be required to perform the following actions:

- Demonstrate that the discharges would not cause or contribute to a violation of any applicable water quality objective/criteria for the receiving waters.
- Perform reasonable potential analysis, using a representative sample of groundwater to be discharged.
- Analyze samples and compare the data to the water quality screening criteria for the applicable constituents listed in the dewatering permit. If the analytical test results of the discharge indicate that toxics exceed the water quality screening criteria, as specified in the dewatering permit, the discharger shall treat the wastewater prior to discharge, such that effluent limitations of the permit are met.

Dewatering in accordance with BMP-HYD-1, including implementation of a dewatering plan, and in accordance with the SWRCB-mandated groundwater dewatering permit would ensure that short-term water quality impacts resulting from dewatering would be less than significant.

Dust Control

Non-stormwater discharges during construction activities would include periodic application of water for dust control. Since dust control is necessary during windy and dry periods to prevent wind erosion and dust plumes, water would be applied in sufficient quantities to prevent dust plumes, but not so excessively as to produce runoff from the construction site. Water applied for dust control would quickly evaporate. Stipulations for dust control are routine in SWPPPs and other construction contract documents, stating that water would only be applied in a manner that does not generate runoff. Therefore, water applied for dust control would not result in appreciable impacts on groundwater or surface water features and thus has little to no potential to cause or contribute to exceedances of water quality objectives contained in the relevant Basin Plan (i.e., the Los Angeles RWQCB Basin Plan [LARWQCB 2014]).

Stormwater Runoff - Operations

Following infilling of the Haynes Intake Channel, the project site would be vacant. As a result, water quality impacts are not anticipated.

Conclusion

In summary, standard construction procedures and compliance with the CGP, including implementation of a SWPPP and groundwater dewatering permit, would adequately protect the quality of receiving waters and

would not violate Basin Plan objectives. For these reasons, and with incorporation of BMP-HYD-1 and BMP-HYD-2 and implementation of MM-HAZ-1 and MM-HAZ-2, the short-term water quality impacts of the project during project demolition and construction would be less than significant with mitigation incorporated. Long-term, operational water quality impacts would not occur.

b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less-Than-Significant Impact. The proposed project would involve filling 2,150 feet of the Haynes Intake Channel within the Haynes property. Although water would be used to suppress dust in compliance with SCAQMD Rule 403, the project would not use large amounts of water that would substantially deplete groundwater supplies or interfere with groundwater recharge. Further, the project does not involve construction of additional structures that would require the use of groundwater supplies and would leave vacant space within the Haynes property. Therefore, impacts to groundwater supplies would be less than significant.

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) Result in substantial erosion or siltation on or off site?

Less-Than-Significant Impact. The project would involve filling the Haynes Intake Channel with engineered fill. Once dewatered and appropriately excavated, the Haynes Intake Channel would be backfilled with engineered fill, leaving flat, vacant space. The vacant space would consist of a compacted dirt surface, which would be level with the surrounding Haynes property. In addition, BMP-HYD-3, Erosion Control, would apply. As a result, neither the filled area nor the surrounding on- and off-site areas would be susceptible to erosion. No existing surface or subsurface drains would be altered as part of the project and surface runoff flow patterns would not be substantially altered. Therefore, the project would not substantially alter the existing drainage pattern of the site such that substantial erosion and siltation impacts on or off site would occur. Impacts would be less than significant, and no mitigation is required.

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site?

Less-Than-Significant Impact. The project involves filling the Haynes Intake Channel with engineered fill, and none of the existing surface or subsurface drains or catchment devices would be altered as part of the project. The Haynes Intake Channel would be backfilled to the existing grade of the surrounding Haynes property such that surface runoff flow patterns would not be substantially

altered. Although the backfilled channel area would not be paved, resulting in partial infiltration of runoff, runoff would occur from the newly created 8.8-acre area. As a result, channel infill could result in an increase in the amount and possibly the rate of surface runoff from this portion of Haynes, potentially resulting in flooding on or off site. Impacts are considered potentially significant. However, implementation of BMP-HYD-4, Flood Control, would require that post-construction stormwater runoff rates be equal to or less than existing rates, such that downstream flooding would not occur. Construction of drainage features to Los Angeles County Department of Public Works Hydrology Manual specifications would also ensure that on-site or downstream flooding would not occur as a result of increased impervious surfaces on site. As a result, long-term operational drainage impacts would be less than significant.

iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less-Than-Significant Impact with Mitigation Incorporated. As previously discussed, filling the existing Haynes Intake Channel would result in an increase in stormwater runoff water, which could exceed the capacity of existing or planned stormwater drainage systems. Impacts are considered potentially significant. However, implementation of BMP-HYD-4 would require that post-construction stormwater runoff rates be equal to or less than existing rates, such that downstream flooding would not occur. Construction of drainage features to Los Angeles County Department of Public Works Hydrology Manual specifications would also ensure that runoff would not exceed the capacity of existing or planned stormwater drainage systems. As a result, long-term operational drainage impacts would be reduced to less-than-significant levels.

As previously discussed in Section 3.10(a), during construction, potential spills or leaks from heavy equipment and machinery, staging areas, or construction areas could enter runoff. For potential short-term impacts, LADWP would be required to obtain an NPDES CGP that addresses pollution from demolition and construction activities. Construction activities would comply with applicable requirements of the Los Angeles RWQCB, including compliance with SWPPP-mandated BMPs, which would be employed to control any potential polluted runoff. In addition, as discussed in Section 3.9, implementation of MM-HAZ-1 (Soil/Sediment Management Plan) and MM-HAZ-2 (Waste Management Plan) would ensure proper handling of potentially contaminated soil and other wastes such that runoff would not be polluted upon off-site discharge. In summary, required compliance with the CGP, as specified in BMP-HYD-2, including preparation and implementation of a SWPPP, and implementation of MM-HAZ-1 and MM-HAZ-2 would ensure that existing or planned stormwater drainage systems would not provide substantial additional sources of polluted runoff. Impacts would be less than significant with mitigation incorporated.

iv) Impede or redirect flood flows?

Less-Than-Significant Impact. The project site is located within a 100-year flood hazard area as indicated on Federal Emergency Management Agency (FEMA) flood zone maps (FEMA 2008). However, the project would involve filling the Haynes Intake Channel and leaving vacant space within the Haynes property. The project would not involve the construction of new structures or buildings that could impede or redirect flood flows. Impacts would be less than significant.

d) In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

Less-Than-Significant Impact. The project site is located within a 100-year flood hazard area (or areas with a 1% annual chance flood) as indicated on FEMA flood zone maps (FEMA 2008). The proposed project would include filling the Haynes Intake Channel and no additional buildings or structures would be built that could be inundated by flood, tsunami, or seiche hazards. Therefore, the project would not result in an increase in the risk of inundation or the release of pollutants due to project inundation by seiche, tsunami, or flood hazards. Further, the area surrounding the project site within the Haynes property is located within Zone X on the FEMA flood zone map. Zone X consists of areas that have a 0.2% annual chance of flood; areas of 1% chance of flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood (FEMA 2008). Therefore, inundation risks are low and the project would not risk release of pollutants due to project inundation; impacts would be less than significant.

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less-Than-Significant Impact. The project site is located within the jurisdiction of the Los Angeles RWQCB Basin Plan (LARWQCB 2014). As previously discussed in Section 4.10(b), LADWP would be required to obtain an NPDES CGP that addresses pollution from construction activities. Further, construction activities would comply with applicable requirements of the Los Angeles RWQCB, including compliance with SWPPPmandated BMPs. The project would not use large amounts of water that would substantially deplete groundwater supplies or interfere with groundwater recharge. Further, the project would not involve the construction of additional buildings or structures that would result in the ongoing use of water resources. Therefore, the project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan; impacts would be less than significant.

References

- FEMA (Federal Emergency Management Agency). 2008. FEMA Flood Map Service Center. Accessed April 2019. https://msc.fema.gov/portal/search?AddressQuery=long%20beach%2C%20ca#searchresultsanchor.
- LARWQCB (Los Angeles Regional Water Quality Control Board). 2014. Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties. September 11, 2014. Accessed April 2019. https://www.waterboards.ca.gov/ losangeles/water_issues/programs/basin_plan/basin_plan_documentation.html.

3.11 Land Use and Planning

	Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Physically divide an established community?				\boxtimes
b)	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?				

a) Would the project physically divide an established community?

No Impact. The proposed filling of the Haynes Intake Channel would be completely contained within the existing 130-acre Haynes property, which is owned by LADWP and is occupied by facilities devoted to the production and transmission of electricity. Therefore, the proposed project would not result in physical division of any established communities. No impact would occur.

b) Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less-Than-Significant Impact. The Haynes property has a general plan land use designation of Industrial/ Energy/Storage and a zoning designation of PD-1 and is located within the SEASP (formerly SEADIP) (City of Long Beach 2017, 2018). The proposed channel filling is consistent with the PD-1 zoning designation.

As discussed in Appendix B (Marine Biological Resources Report), the project site is located within both the coastal zone and CCC's permit jurisdiction. The California Coastal Act prohibits the filling of coastal waters unless (a) there is no feasible alternative; (b) adverse impacts are minimized and appropriately mitigated; and (c) it is an allowable use such as a new or expanded energy facility. Since the proposed project includes filling 2,150 feet of the Haynes Intake Channel, the proposed project would require a Coastal Development Permit

issued by CCC. Therefore, upon receipt of the appropriate permits and approvals, the proposed project would not conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect and impacts would be less than significant.

References

- City of Long Beach. 2017. "Land Use Element." *City of Long Beach General Plan*. Accessed January 2019. http://www.longbeach.gov/globalassets/city-news/media-library/documents/lue/november-2017/ draft_longbeachlanduseelement_11-2017_sml.
- City of Long Beach. 2018. Zoning Maps. Accessed January 2019. http://www.lbds.info/civica/filebank/blobdload.asp?BlobID=2538.

3.12 Mineral Resources

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

a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. According to the City's General Plan Conservation Element, the primary mineral resources within the City have historically been oil and natural gas (City of Long Beach 1973). However, no oil, natural gas, or other mineral resources are known to exist on the project site that would be affected by the proposed project. No impact would occur.

b) Would the project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No Impact. The proposed project would not result in the loss of a locally important mineral resource. The project site and vicinity are classified as MRZ-3: areas containing construction aggregate deposits, the

significance of which cannot be evaluated from available data. Therefore, the project site is not located on significant mineral or energy deposits as mapped by the City (City of Long Beach 1973) or the state (DOC 2017a, 2017b). No impact would occur.

References

- City of Long Beach. 1973. "Conservation Element." *City of Long Beach General Plan.* April 30, 1973. http://www.lbds.info/civica/filebank/blobdload.asp?BlobID=4092.
- DOC (California Department of Conservation). 2017a. Mineral Land Classification. Accessed March 2017. http://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=mlc.

3.13 Noise

	Would the project result in:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?				
b)	Generation of excessive groundborne vibration or groundborne noise levels?				\boxtimes
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?				

DOC. 2017b. Division of Oil, Gas, & Geothermal Resources Well Finder. Accessed March 2017. http://maps.conservation.ca.gov/doggr/#close.

a) Would the project result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less-Than-Significant Impact. The proposed project would not generate any noise after the completion of construction. However, construction activities would create noise associated with the operation of construction equipment.

Continuous sound monitoring has been conducted at Haynes by LADWP since July 2019 in association with ongoing construction activity related to the demolition of Generation Units 3, 4, 5, and 6 and numerous ancillary facilities. These generation units are located immediately west of the Haynes Intake Channel. Other facilities that have undergone demolition include two large aboveground storage tanks, which are located approximately 200 feet east of the channel and 120 feet west of the Haynes eastern boundary. In addition to demolition activity, a warehouse has also been under construction near the eastern boundary of Haynes during this time.

This demolition and construction work has required the use of heavy equipment, including excavators, cranes, front loaders, hydraulic shears, and concrete crushing equipment. Trucks required to deliver material and haul away demolition debris have utilized the easternmost gate along 2nd Street at Island Village Drive and traversed the eastern portion of Haynes, east of the intake channel.

During this demolition and construction activity, noise monitoring equipment has been continuously present at several locations within Haynes, including a site along the eastern boundary of the station, across the Orange County flood control channel from Leisure World (Figure 5). This equipment has taken constant readings and provided equivalent continuous sound level measurements (L_{eq}) for each 1-hour period throughout the day since July 2019, when the demolition activity began. These measurements are given in decibels on an A-weighted scale (dBA), which compensates for sound detected at various frequency levels to provide a measurement approximating human perception of loudness.

These sound monitoring data indicate that noise levels at the monitoring location along the eastern boundary of Haynes were measured at 55 dBA or less the majority of the time during the reported monitoring period (July 1, 2019, to October 16, 2020). For most of the balance of the monitoring period, noise levels were measured at between 55 dBA and 60 dBA. These measurements represent composite noise levels created by all sources impacting on the monitoring location, including noise from operating generation units, maintenance activity at Haynes, demolition and construction, noise emanating from Leisure World, and overflights of civilian and military aircraft. These noise levels occurred throughout all hours of the day and night and on weekends and holidays as well as weekdays; therefore, they cannot be correlated with noise levels from demolition and construction activity only, which has typically occurred between the hours of 7:00 a.m. and 3:00 p.m., Monday through Friday.

During the monitoring period, noise levels in excess of 60 dBA were detected only approximately 3% of the time. Similar to all noise measured at the monitoring location, these measurements occurred during both daytime and nighttime hours on weekdays, weekends, and holidays; therefore, they cannot be correlated with noise levels from demolition and construction activity only. These short-term peaks (generally lasting from 1 hour to several hours) may have resulted from the close approach of construction equipment, ruptures in generator steam lines, overflights of jet aircraft, or even landscape maintenance activities within Leisure World.

To place these measured noise levels in perspective, Table 9 indicates the established exterior noise levels for various land uses within the City of Long Beach (within which the proposed project and many surrounding uses, including Island Village, are located) and the City of Seal Beach (within which some surrounding uses, including Leisure World, are located).

Table 9 Local Exterior Noise Levels

Land Use	Long Beach ^a	Seal Beach ^b
Residential, 7:00 a.m10:00 p.m.	50 dBA	55 dBA
Residential, 10:00 p.m.–7:00 a.m.	45 dBA	50 dBA
Commercial, 7:00 a.m.–10:00 p.m.	60 dBA	65 dBA
Commercial, 10:00 p.m7:00 a.m.	55 dBA	65 dBA
Industrial (any time)	70 dBA	70 dBA

Notes: dBA = A-weighted decibels.

^a City of Long Beach 1988, Chapter 8.80: Noise, Section 8.80.160.

^b City of Seal Beach 2016, Chapter 7.15: Noise, Section 7.15.015.

Haynes and Island Village are classified as industrial land uses in the Long Beach Noise Ordinance (City of Long Beach, Section 8.80.160). Leisure World is classified as a residential use in the Seal Beach Noise Ordinance (City of Seal Beach, Section 7.15.010). In relation to the IS/MND for the Haynes Generating Station Units 3, 4, 5, and 6 Demolition Project (Demolition Project), exterior daytime noise levels at the closest residences to Haynes within Leisure World, which are located approximately 200 feet from the sound monitoring location along the eastern boundary of Haynes, were measured at between 55 dBA and 60 dBA prior to the outset of the construction activity associated with the demolition project (LADWP 2017). Exterior noise levels at the closest residences to Haynes, were measured at approximately 150 feet south of Haynes, were measured at approximately 65 dBA prior to the outset of the demolition activity. These measurements represented composite noise levels created by all sources impacting on the monitoring location, including noise from Haynes, vehicular traffic on public roadways, aircraft, and sources within the communities.

The proposed project would require similar types of construction equipment, use the same access gate for trucks, and be conducted in the same general area as the Demolition Project work discussed above, and it is anticipated that noise levels at Haynes during the infill process would remain similar to the noise levels recorded on a continuous basis during the Demolition Project work. Acknowledging the closer proximity of the infill

construction to Island Village during a brief period when the cofferdam is installed south of the 2nd Street bridge, a temporary noise barrier along the top of the east embankment of the Haynes Intake Channel south of the bridge has been incorporated into the proposed project. The use of a press-in driver to install the piles, as called for in BMP-NOI-1 (see Section 2.5 of this IS/MND), would also avoid the noise and vibration associated with traditional percussion or vibratory pile drivers.

In order to ensure that noise levels during the proposed project construction remain consistent with the noise levels that were experienced at Haynes during the monitoring period for the Demolition Project, noise monitoring equipment would be placed at appropriate locations within Haynes, and noise levels would be measured on a continuous 1-hour L_{eq} basis throughout construction (see BMP-NOI-2 in Section 2.5). As outlined in BMP-NOI-2, these monitoring data would be used to detect excessive noise issues that result from construction activity. As indicated in BMP-NOI-3, a public liaison would be appointed who would be responsible for addressing public concerns about excessive noise created by construction activities, including determining the cause of the noise and implementing actions to avoid or minimize further incidents.

Noise, including construction noise, is regulated under the noise ordinances of the City of Long Beach and the City of Seal Beach. The Long Beach noise ordinance is contained in Chapter 8.80 of the Municipal Code (City of Long Beach 1988). Construction noise is regulated under Section 8.80.202 of the noise ordinance, which permits noise associated with construction as long as the construction activity occurs within specified hours. These hours include weekdays (including federal holidays) between 7:00 a.m. and 7:00 p.m. and Saturdays between 9:00 a.m. and 6:00 p.m. Outside of these designated hours, construction noise shall not exceed the standards established for noise in Section 8.80.160 of the noise ordinance, except under emergency circumstances or by special permit.

The Seal Beach noise ordinance is contained in Chapter 7.15 of the Municipal Code (City of Seal Beach 2016). Section 7.15.025 E of the ordinance expressly exempts noise associated with construction activity from the noise limits established in other sections of the ordinance, as long as the construction is performed between the hours of 7:00 a.m. and 8:00 p.m. on weekdays and between 8:00 a.m. and 8:00 p.m. on Saturdays.

BMP-NOI-4 for the proposed project (see Section 2.5 of this IS/MND) establishes project construction hours that are consistent with the most conservative time limits established in the Long Beach and Seal Beach noise ordinances.

Therefore, based on the anticipated composite noise levels during project construction and the implementation of BMP-NOI-1 through BMP-NOI-4, the project would not generate a substantial temporary or permanent increase in ambient noise levels in excess of standards established in local noise ordinances, and the impact would be less than significant.

b) Would the project result in the generation of excessive groundborne vibration or groundborne noise levels?

No Impact. Construction activities that might expose persons to excessive groundborne vibration or groundborne noise have the potential to cause a significant impact. Groundborne vibration information related to construction/heavy equipment activities has been collected by the California Department of Transportation (Caltrans). Information from Caltrans indicates that transient vibrations (such as from demolition activity) with a peak particle velocity of approximately 0.035 inches per second (in/sec) may be characterized as barely perceptible, and vibration levels of 0.24 in/sec may be characterized as distinctly perceptible (Caltrans 2013). Large bulldozers would have peak particle velocities of up to approximately 0.089 in/sec at a distance of 25 feet; a vibratory roller would have a peak particle velocity of up to 0.210 in/sec at a distance of 25 feet (DOT 2018).

Groundborne vibration is typically attenuated over relatively short distances. At the nearest existing residential use distance to the nearest construction area (approximately 140 feet) and with the anticipated construction equipment, the peak particle velocity would be approximately 0.013 in/sec. This vibration level would be well below the threshold of "barely perceptible" of 0.035 in/sec vibration.

The major concern with construction vibration is related to building damage. Construction-related vibration as a result of the proposed project would not result in structural building damage, which typically occurs at vibration levels of 0.5 in/sec or greater for buildings of reinforced-concrete, steel, or timber construction. There would be no impacts related to groundborne vibration.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The project site is not located within 2 miles of a public airport or within the planning area boundaries of a public airport. The project site is approximately 2.1 miles southwest of Joint Forces Training Base, Los Alamitos, and approximately 3.5 miles southeast of Long Beach Airport. It is outside the 60 and 65 dBA noise contour impact zones of the Joint Forces Training Base (Orange County ALUC 2016) and outside the airport influence area of Long Beach Airport (County of Los Angeles 2017). There are no private airstrips in the vicinity of the project site (Airnav.com 2019). Therefore, the proposed project would not expose people residing or working in the project area to excessive noise levels from a private airstrip. Furthermore, the proposed project is within the boundaries of an existing power generation plant and would not provide any new facilities such that people residing or working in the project area would be exposed to increased noise levels from aircraft. Therefore, no impact would occur.

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LA Los Angeles DWP Water & Power

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Long-Term Noise Monitoring Locations

Haynes Generating Station Intake Channel Infill

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3.14 Population and Housing

	Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				
b)	Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				

a) Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

No Impact. The proposed project would not directly induce unplanned population growth through the provision of new homes or businesses. Additionally, the project would not increase the power generating capacity at Haynes; therefore, the project would not indirectly induce population growth in the area. During Phase I, it is anticipated that 30 construction workers would be on site at any one time, and construction would occur over a period of 15 months. During Phase II, it is anticipated that 60 construction workers would be on site at any one time, and construction would occur over a period of 30 months. Given the temporary nature of construction industry jobs, the relatively large regional construction industry, and the relatively small number of construction workers needed, it is likely that the labor force from within the region would be sufficient to support the project without a substantial influx of new workers and their families. Accordingly, construction employment generated by the project would not impact population growth in the region. No impact would occur.

b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The proposed project is located within a fully developed industrial site owned by LADWP and would not displace any existing housing or people. No impact would occur.

3.15 Public Services

	Less ThanPotentiallySignificant withSignificantMitigation		Less Than Significant	Nolmost				
a) Would the project result in substantial adverse ph		associated with the provis	ion of new or ph					
a) altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:								
Fire protection?				\boxtimes				
Police protection?				\boxtimes				
Schools?				\boxtimes				
Parks?				\boxtimes				
Other public facilities?				\boxtimes				

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

Fire Protection?

No Impact. Haynes is served by the City of Long Beach Fire Department. The proposed project would fill 2,150 feet of the Haynes Intake Channel, leaving vacant space for a future energy project, and no new or expanded fire protection services would be required at the site. Therefore, no impact would occur.

Police Protection?

No Impact. Haynes is served by the City of Long Beach Police Department and LADWP security personnel. The proposed project would fill 2,150 feet of the Haynes Intake Channel within the Haynes property boundaries, and no new or expanded police protection services would be required at the site. Therefore, no impact would occur.

Schools?

No Impact. The proposed project would fill 2,150 feet of the Haynes Intake Channel within the Haynes boundaries. During Phase I, it is anticipated that 30 construction workers would be on site at any one time, and construction would occur over a period of 15 months. During Phase II, it is anticipated that 60 construction workers would be on site at any one time, and construction workers would be on site at any one time, and construction would occur over a period of 30

months. The project would not involve employment of a new permanent workforce that would necessitate the expansion of school services to serve new residents. Therefore, no impact to schools would occur.

Parks?

No Impact. The proposed project would fill 2,150 feet of the Haynes Intake Channel within the Haynes boundaries. During Phase I, it is anticipated that 30 construction workers would be on site at any one time, and construction would occur over a period of 15 months. During Phase II, it is anticipated that 60 construction workers would be on site at any one time, and construction would occur over a period of 30 months. The project would not involve employment of a new permanent workforce that would necessitate the expansion of parks or development of new parks to serve new residents. Therefore, no impacts to parks would occur.

Other Public Facilities?

No Impact. The proposed project would fill 2,150 feet of the Haynes Intake Channel within the Haynes boundaries. During Phase I, it is anticipated that 30 construction workers would be on site at any one time, and construction would occur over a period of 15 months. During Phase II, it is anticipated that 60 construction workers would be on site at any one time, and construction would occur over a period of 30 months. The project would not involve employment of a new permanent workforce that would necessitate the expansion of other public facilities to serve new residents. Therefore, no impact to other public facilities would occur.

3.16 Recreation

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				
b)	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				\boxtimes

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact. The proposed project would involve filling 2,150 feet of the Haynes Intake Channel within the existing Haynes property boundaries. Construction workers would likely come from the region and would not need to relocate. Therefore, the project would not increase the use of existing neighborhood or regional parks or other recreational facilities. No impact would occur.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact. The proposed project would involve filling 2,150 feet of the Haynes Intake Channel within the existing Haynes property boundaries. It would not include recreational facilities or require the construction or expansion of recreational facilities. No impact would occur.

3.17 Transportation

	Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?				
b)	Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?			\boxtimes	
c)	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			\boxtimes	
d)	Result in inadequate emergency access?			\boxtimes	

This section analyzes the potential construction-related (temporary) impacts of the project based on CEQA Guidelines Section 15064.3(b), which focuses on newly adopted criteria (vehicle miles traveled, or VMT) pursuant to SB 743 for determining the significance of transportation impacts. Pursuant to SB 743, the focus of transportation analysis changed from level of service (LOS) or vehicle delay to VMT. The related updates to the CEQA Guidelines required under SB 743 were approved on December 28, 2018. As stated in CEQA Guidelines Section 15064.3(c), the provisions of Section 15064.3 shall apply prospectively, and a lead agency may elect to be governed by the provisions of Section 15064.3 immediately. The VMT approach is required to be implemented statewide starting July 1, 2020.

The project site and the surrounding road network are located in the City of Long Beach and the City of Seal Beach. Both lead agencies have adopted the new transportation criteria and thresholds to include VMT analysis requirements per CEQA Guidelines Section 15064.3(b) in their respective transportation analysis guidelines. Additionally, guidance provided in the California Governor's Office of Planning and Research (OPR) Technical Advisory on Evaluating Transportation Impacts in CEQA (OPR 2018) was also used to determine the proposed project's transportation impact. The project's VMT analysis follows the process of first using screening criteria, identifying an efficiency metric, identifying the significance threshold and, lastly, determining requirements for modeling and assessment. It should be noted that OPR, the City of Long Beach, and the City of Seal Beach do not require a quantitative assessment of VMT generated by construction traffic and have not adopted a significance threshold for construction projects.

Screening Criteria for Transportation (VMT Analysis and LOS-Based Traffic Analysis)

- Per City of Long Beach Traffic Impact Guidelines, June 2020, a traffic impact and VMT analysis would be required for any project that is expected to generate 500 or more net new daily trips (or 50 peak hour trips). The City of Long Beach uses Small Project screening criteria for a project that would generate fewer than 500 trips per day to establish a less-than-significant VMT impact.
- Per City of Seal Beach Transportation Analysis Guidelines, June 2020, a traffic impact study would generally be required for any project that is expected to generate a minimum of 50 peak hour trips during AM or PM peak hour. The City of Seal Beach also uses Small Project screening criteria for a project that would generate fewer than 250 trips per day to establish a less-than-significant VMT impact.

Even though the Small Project screening criteria to establish less-than-significant VMT impacts are applicable to land development projects, they can be used to screen projects that would generate temporary construction-related traffic and no post-construction maintenance traffic. Using the above-mentioned criteria, and as shown in project trip generation (Tables 10 and 11), Phases I and II of the proposed project would not warrant a VMT- or LOS-based traffic analysis because each phase would generate less than 500 daily trips and 50 trips per hour (per City of Long Beach screening criteria), and less than 250 daily trips and 50 peak hour trips (per City of Seal Beach screening criteria for VMT and LOS analyses, respectively).

Existing Roadway System

Characteristics of the existing street, transit, pedestrian, and bicycle network in the vicinity of the project are described in the following paragraphs.

San Diego Freeway (I-405). Interstate (I) 405 is a north–south 10-lane divided freeway located north of the project site. The posted speed limit is 65 mph, and interchanges in the vicinity of the project are located at 7th Street–SR-22

and Seal Beach Boulevard. I-405 is classified as a State Freeway in the County of Los Angeles Congestion Management Program (County of Los Angeles 2010) and as a Freeway in the City of Long Beach General Plan's Mobility Element (City of Long Beach 2013).

Garden Grove Freeway (SR-22). SR-22 is an east–west six-lane divided freeway east of Studebaker Road, located north of the project site. The posted speed limit is 45 mph, and interchanges in the vicinity of the project are located at Studebaker Road and Seal Beach Boulevard. SR-22 is classified as a State Freeway in the County of Los Angeles Congestion Management Plan and as a Freeway in the City of Long Beach Mobility Element (County of Los Angeles 2010; City of Long Beach 2013).

Pacific Coast Highway (SR-1). SR-1 is a north–south four- to six-lane divided road in the vicinity of the project site. The posted speed limit ranges from 35 to 45 mph, and on-street parking is not permitted along either side of the road. SR-1 is classified as a State Highway (Arterial) in the County of Los Angeles Congestion Management Plan and as a Regional Corridor in the City of Long Beach Mobility Element (County of Los Angeles 2010; City of Long Beach 2013).

Studebaker Road. Studebaker Road is a north–south four-lane road, generally divided, in the vicinity of the project site, and provides direct access to I-405 and SR-22. Studebaker Road is designated a Boulevard in the City of Long Beach Mobility Element (City of Long Beach 2013). Parking is not permitted along either side of the roadway, and the posted speed limit ranges from 40 to 45 mph.

7th Street. An east–west six-lane road, generally divided, east of Pacific Coast Highway, 7th Street is designated as a Boulevard in the City of Long Beach Mobility Element (City of Long Beach 2013). Parking is generally not permitted along either side of the road, and the posted speed limit ranges from 35 to 40 mph in the in the vicinity of the project site.

2nd Street–Westminster Boulevard. An east–west four- to six-lane divided road, 2nd Street–Westminster Boulevard is designated as a Boulevard in the City of Long Beach Mobility Element (City of Long Beach 2013). West of Island Village Drive, the road is identified as 2nd Street, and East of Island Village Drive, the road becomes Westminster Boulevard. Parking is not allowed along either side of the road, and the posted speed limit ranges from 40 to 50 mph. 2nd Street provides access to the project site via the LADWP driveway east of the San Gabriel River Bike Trail and the 2nd Street/Island Village Drive intersection.

Seal Beach Boulevard. Seal Beach Boulevard is a north–south six-lane divided road and is designated as a Major facility by the City of Seal Beach General Plan's Circulation Element (City of Seal Beach 2003). Parking is not allowed along either side of the street, and the posted speed limit ranges from 40 to 50 mph.

Transit System

The Los Angeles County Metropolitan Transportation Authority, the Orange County Transportation Authority, and Long Beach Transit provide public transit service in the vicinity of the project site. Figure 6, Existing Transit Facilities,

illustrates the current transit routes and stop locations in the vicinity of Haynes. The nearest bus stops to the project site are located along Studebaker Road and Seal Beach Boulevard.

Pedestrian and Bicycle Facilities

The project site and its immediate vicinity does not serve many active transportation users due to its proximity to light industrial uses. Along 2nd Street, an intermittently paved sidewalk is provided in the vicinity of the project site. A pedestrian crosswalk is provided at the LADWP driveway/2nd Street intersection.

The City of Long Beach is serviced by Class I, II, and III bicycle facilities; 8-to-80 Bikeway; and separated bicycle lanes (Class IV). The Orange County Bicycle Network comprises Class I, II, and III bicycle facilities.

In the vicinity of the project site, there are existing Class I and II bikeways along portions of Pacific Coast Highway, 7th Street, 2nd Street–Westminster Boulevard, Seal Beach Boulevard, and Loynes Drive. These bikeways are discontinuous in certain areas. See Figure 7, Existing and Proposed Bicycle Facilities.

a) Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

Less-Than-Significant Impact. The proposed project would generate temporary construction-related trips during Phases I and II. No operational traffic would be generated by the proposed project once construction is completed. The trip generation of Phases I and II was analyzed to determine whether further traffic analysis would be required per City of Long Beach or City of Seal Beach traffic impact guidelines. For projects that would generate less than 50 peak-hour trips, their impact to the street network would be considered less than significant or not measurable. As shown in the project trip generation summary below, the peak worker and truck trips for Phases I and II would not exceed the 50-trip threshold during the AM or PM peak hour.

Project Trip Generation

The Institute of Transportation Engineers' Trip Generation Manual does not contain trip rates for construction-related activities. Trip generation for construction projects is based on average or peak number of workers and trucks that would be required for the proposed construction activities. Construction traffic includes the number of workers and the amount of delivery and haul truck traffic that would be generated to and from the site daily and during the AM and PM peak hours. An anticipated daily average of 30 workers would be required during Phase I of construction, and approximately 60 workers would be required during Phase II. At the peak of construction activities (during channel infilling), approximately 24 truck round-trips (48 one-way trips) per day would be required to deliver earthen material during Phase I, and approximately 45 truck round-trips (90 one-way trips) per day would be required for Phase II. The construction activities would occur in one shift of approximately 8 hours between 7:00 am and 5:00 pm over the weekdays, Monday through Friday. Based on the work schedule, workers would not generally be traveling during the AM or PM peak

periods. However, to provide a conservative analysis, for Phase I approximately 20% of the 30 workers (i.e., 6 workers) were assumed to regularly arrive at the site after 7:00 a.m. (i.e., during the AM peak hour) and leave the site after 3:00 p.m. (i.e., during the PM peak hour). Although some workers may carpool to the site, thereby reducing the number of worker vehicle trips, it was conservatively assumed that each worker would use their own vehicle. All truck trips were averaged over the 8-hour workday to estimate peak hour trips with 50% inbound and 50% outbound. Passenger car equivalent (PCE) factors were used to account for the project's truck traffic and provide a more realistic measurement in terms of the impact of project-related truck traffic. All truck trips were converted to PCE trips using a factor of 3.0. Similar assumptions were used for Phase II construction activities.

The calculations of project trip generation estimates are shown in Tables 10 and 11.

	Daily	Daily	A	M Peak Ho	ur	PN	I Peak Ho	ur		
Vehicle Type	Quantity	Trips	In	Out	Total	In	Out	Total		
	Trip Generation									
Workers	30 workers	60	6	0	6	0	6	6		
Haul trucks	24 trucks	48	3	3	6	3	3	6		
	Total trips	108	9	3	12	3	9	12		
		Trip Genei	ration w/PC)E						
Workers (1.0 PCE) ^a	30 workers	60	6	0	6	0	6	6		
Haul trucks (3.0 PCE) ^b	24 trucks	144	9	9	18	9	9	18		
То	tal trips (w/PCE)	204	15	9	24	9	15	24		

Table 10 Project Trip Generation – Phase I

Notes: PCE = passenger car equivalent.

^a A PCE factor of 1.0 was used for worker passenger cars.

^b A PCE factor of 3.0 was used for haul trucks.

Table 11 Project Trip Generation – Phase II

		Daily	A	M Peak Ho	ur	PM	Peak Hou	ır
Vehicle Type	Daily Quantity	Trips	In	Out	Total	In	Out	Total
		Trip Ge	eneration					
Workers	60 workers	120	12	0	12	0	12	12
Haul trucks	45 trucks	90	6	6	12	6	6	12
	Total trips	210	18	6	24	6	18	24
		Trip Gener	ation w/PC	E				
Workers (1.0 PCE) ^a	60 workers	120	12	0	12	0	12	12
Haul trucks (3.0 PCE) ^b	45 trucks	270	18	18	36	18	18	18
Тс	otal trips (w/PCE)	390	30	18	48	18	30	48

Notes: PCE = passenger car equivalent.

^a A PCE factor of 1.0 was used for worker passenger cars.

^b A PCE factor of 3.0 was used for haul trucks.

As shown in Table 10, Phase I construction would generate 108 daily trips, including 12 AM peak hour trips (9 inbound and 3 outbound) and 12 trips during the PM peak hour (3 inbound and 9 outbound). With the application of PCE factors to truck trips, the project would generate 204 total PCE daily trips, including 24 PCE trips during the AM peak hour (15 inbound and 9 outbound) and 24 PCE trips during the PM peak hour (9 inbound and 15 outbound).

As shown in Table 11, Phase II of the project would generate 210 daily trips, including 24 AM peak hour trips (18 inbound and 6 outbound) and 24 trips during the PM peak hour (6 inbound and 18 outbound). With the application of PCE factors to truck trips, the project would generate 390 total PCE daily trips, including 48 PCE trips during the AM peak hour (30 inbound and 18 outbound) and 48 PCE trips during the PM peak hour (18 inbound and 30 outbound).

Construction-related truck traffic would access the project site via SR-22 at its existing eastbound and westbound ramps at Studebaker Road, and would use Studebaker Road and 2nd Street to access the project site via either the existing LADWP driveway or the driveway to the east.

As shown in Tables 10 and 11, the proposed project would not meet the general screening criteria of 50 AM or PM peak-hour trips to warrant a detailed traffic analysis. Further, the project would have no effect on transit, bicycle, or pedestrian facilities. There would be no increase in permanent employees once construction is completed. Therefore, no further analysis would be required, and the construction traffic associated with the project would not conflict with a program, plan, ordinance, or policy addressing the circulation system. Impacts would be less than significant.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Less-Than-Significant Impact. CEQA Guidelines Section 15064.3(b) focuses on VMT for determining the significance of transportation impacts. It is further divided into four subdivisions: (1) land use projects, (2) transportation projects, (3) qualitative analysis, and (4) methodology. The proposed project involves backfilling an existing channel that would generate temporary construction-related traffic, and no operations and maintenance traffic that would be categorized under CEQA Guidelines Section 15064.3(b)(3), qualitative analysis. Subdivision (b)(3) recognizes that lead agencies may not be able to quantitatively estimate VMT for every project type. For many projects, a qualitative analysis of construction traffic may be appropriate.

The updated CEQA Guidelines do not establish a significance threshold; however, the Cities of Long Beach and Seal Beach have recommended a threshold of significance for land use development (residential, office, and other land uses) and transportation projects. It should be noted that there is no significance threshold for construction or maintenance projects. Using approximate trip lengths for worker commute, delivery, and haul trips, VMT for the overall project has been estimated using default values for the region from CalEEMod, which was used to estimate the project's air quality and GHG emissions. Construction-related trips are temporary and would not generate permanent trips. Therefore, the VMT from construction is not required to be quantified. Further, the project construction would be consistent with construction activities in terms of the temporary nature of activities, trip generation characteristics, and the types of vehicles and equipment required. Even though some of the workers could carpool to the site, managing worker and truck trip lengths for the construction projects is not feasible because of the remote location and duration of individual activities. Alternative modes of transportation to and from the project site are also generally not available to construction workers.

Vehicle-trip generation (for workers and trucks) as a result of project construction has been summarized in Table 10 and 11. Per OPR, heavy vehicle traffic is not required to be included in the estimation of a project's VMT. As noted above, worker and truck trips would generate VMT, but once construction is completed, the construction-related traffic would cease, and VMT would return to pre-project conditions. Measures available to reduce the VMT generated by construction workers and trucks are limited, and there are no thresholds or significance criteria for temporary, construction-related VMT. Additionally, construction-related VMT would be temporary and short term. Further, it should be noted that OPR and the Cities of Long Beach and Seal Beach do not require quantitative assessment of temporary construction traffic. As mentioned previously, because the project would not generate any new permanent maintenance trips, the Small Project screening criteria can be used to establish a less-than-significant VMT impact.

Therefore, the proposed project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b), and impacts would be less than significant.

c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less-Than-Significant Impact. The proposed project would not include any new roadway design features, nor would it alter any existing geometric design features. Access for construction-related traffic (workers and trucks) to the Haynes site would be from either the existing signalized LADWP Driveway/2nd Street intersection or the driveway to the east. As such, motorists/trucks entering and exiting the project site would be able to do so comfortably, safely, and without causing congestion. Therefore, the proposed project would not substantially increase hazards due to a roadway design feature. Impacts would be less than significant.

d) Would the project result in inadequate emergency access?

Less-Than-Significant Impact. The project site is located in an established, developed area with ample access for emergency service providers. Construction activities during Phases I and II would occur on the project site,

and no lane closures in the public right-of-way are anticipated that would impact adopted emergency response plans. As such, the project would have a less-than-significant impact related to emergency access.

References

- City of Long Beach. 2013. "Mobility Element." *City of Long Beach General Plan.* October 15, 2013. http://www.longbeach.gov/lbds/planning/advance/general-plan/mobility/.
- City of Long Beach. 2020. Draft Traffic Impact Guidelines. June 2020.
- City of Seal Beach. 2003. "Circulation Element." *City of Seal Beach General Plan*. December 2013. https://www.sealbeachca.gov/Departments/Community-Development/Planning-Development/General-Plan.

City of Seal Beach. 2020. Transportation Analysis Guidelines. June 2020.

County of Los Angeles. 2010. 2010 Congestion Management Program. Los Angeles County Metropolitan Transportation Authority, Long Range Planning and Coordination.

ITE (Institute of Engineers). 2017. Trip Generation Manual, 10th Edition. September 2017

OPR 2018. OPR (California Governor's Office of Planning and Research). 2018. Technical Advisory on Evaluating Transportation Impacts in CEQA. December 2018.

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SOURCE: Bing Maps



FIGURE 6 Existing Transit Facilities Haynes Generating Station Intake Channel

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SOURCE: Bing Maps; City of Long Beach 2017



FIGURE 7 Existing and Proposed Bicycle Facilities Haynes Generating Station Intake Channel

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3.18 Tribal Cultural Resources

		Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Cau sec sco	use a substantial adverse change in the signification 21074 as either a site, feature, place, cultu pe of the landscape, sacred place, or object wit	ance of a tribal cu ral landscape that h cultural value to	Itural resource, defi t is geographically d a California Native	ned in Public Res lefined in terms of American tribe, a	ources Code the size and and that is:
	i)	Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or				
	ii)	A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.				

- a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
 - i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

Less-Than-Significant Impact. As discussed in Section 3.5, Cultural Resources, a CHRIS records search was conducted for the project area at the South Central Coastal Information Center on November 22, 2016. No historical resources or tribal cultural resources were identified as a result of the records search. In response to a Sacred Lands File search request, the Native American Heritage Commission stated in a letter dated October 17, 2016, that the Sacred Lands File search was completed with negative results. Therefore, the proposed project would not adversely affect tribal cultural resources that are listed or eligible for listing in the state or local register of historical

resources as defined in California Public Resources Code Section 5020.1(k). As such, impacts would be less than significant.

ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less-Than-Significant Impact with Mitigation Incorporated. The project is subject to compliance with AB 52 (California Public Resources Code Section 21074), which requires consideration of impacts to tribal cultural resources as part of the CEQA process. Notifications must be sent to any groups that are traditionally or culturally affiliated with the geographic area of the project and have requested notification. According to California Public Resources Code Section 21080.3.1(b), consultation begins if (1) the California Native American Tribe has requested, in writing, to be informed by the lead agency through a formal notification of projects in the geographic area that is traditionally and culturally affiliated with the Tribe and (2) the California Native American Tribe responds, in writing, within 30 days of receipt of the formal notification and requests the consultation.

As previously discussed, a Sacred Lands File record search completed for the project area returned negative results. In June 2019, LADWP contacted all Native American contacts identified by the Native American Heritage Commission as Tribes traditionally or culturally affiliated with the project area and vicinity. Six letters were submitted via certified mail on June 24, 2019, that advised the Tribes and specific individuals of the proposed project and requested information regarding cultural resources in the immediate area, as well as feedback or concerns related to the proposed project. On March 16, 2020, LADWP received an email correspondence from the Gabrieleño Band of Mission Indians – Kizh Nation requesting further consultation regarding the mitigation for tribal cultural resources. At the request of the Gabrieleño Band of Mission Indians – Kizh Nation, the following mitigation measures, requiring that a Native American monitor be present to monitor all ground-disturbing activities and specifying procedures to follow in the event of discovery of tribal cultural resources, would be implemented:

MM-TCR-1 Native American Monitor. A Native American monitor shall be present to monitor all ground-disturbing activities, including excavation activities, and any site grading, scraping, or leveling activities associated with the proposed project. The Native American monitor shall be both ancestrally affiliated with the project area and listed under the Native American Heritage Commission's Tribal Contact list for the area of the project location. The Native American monitor shall work under the direction of a qualified principal investigator (i.e., an archaeologist who meets the Secretary of the Interior's Professional Qualification Standards). Before initiating ground-disturbing activities, the Native American monitor shall conduct a brief awareness training session for the benefit of all construction workers and supervisory personnel. The training, which could be held in conjunction with the project's initial on-site safety meeting, shall explain the importance of and legal basis for the protection of significant tribal cultural resources. Each worker shall also learn the proper procedures to follow in the event that tribal cultural resources or human remains are uncovered during ground-disturbing activities. These procedures include work curtailment or redirection and immediately contacting the site supervisor and archaeological monitor. The Native American monitor will only be present on site during the construction phases that involve ground-disturbing activities. The Native American monitor shall complete daily monitoring logs that will provide descriptions of the day's activities, including construction activities, locations, soil, and any cultural materials identified. The on-site monitoring will end when the project site grading and excavation activities are completed, or if it has been determined that the site has a low potential for impacting tribal cultural resources.

MM-TCR-2 Discovery of Tribal Cultural Resources. Upon discovery of any tribal cultural or archaeological resources, construction activities shall cease in the immediate vicinity of the find until the find can be assessed. All tribal cultural and archaeological resources unearthed by project construction activities shall be evaluated by the qualified archaeologist and Native American monitor. If the resources are Native American in origin, LADWP shall coordinate with the affiliated tribe regarding treatment and curation of these resources. Work may continue on other parts of the project while evaluation and, if necessary, additional protective mitigation takes place (CEQA Guidelines Section15064.5[f]). If a resource is determined by the qualified archaeologist to constitute a "historical resource" or "unique archaeological resource," time allotment and funding sufficient to allow for implementation of avoidance measures or appropriate mitigation will be available. The treatment plan established for the resources shall be in accordance with CEQA Guidelines Section 15064.5(f) for historical resources.

In the event of inadvertent discoveries, compliance with MM-TCR-1 and MM-TCR-2 would reduce impacts to tribal cultural resources below a level of significance.

3.19 Utilities and Service Systems

	Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?				
b)	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?				
c)	Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				
d)	Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			\boxtimes	
e)	Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?				\boxtimes

a) Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

No Impact. The proposed project would involve filling 2,150 feet of the Haynes Intake Channel at Haynes and would not include any further development or components that would lead to increased demand for water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities. Thus,

the proposed project would have no impact on existing facilities or require the expansion or construction of new or expanded facilities.

b) Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

No Impact. The project would involve filling 2,150 feet of the Haynes Intake Channel at Haynes, leaving vacant space within the Haynes property for a future energy project. Although water would be used to suppress dust in compliance with SCAQMD Rule 403, the project would not require large amounts of water for dust suppression purposes. The proposed project would not include any additional structures or development that would require water supplies and would not result in increased water demand. Therefore, the project would result in no impact.

c) Would the project result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

No Impact. The proposed project would involve filling 2,150 feet of the Haynes Intake Channel at Haynes, leaving vacant space for a future energy project. The proposed project would not include any additional structures or development that would require wastewater treatment and would not result in increased demand. Therefore, there would be no impact on the wastewater treatment system.

d) Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less-Than-Significant Impact. The project would involve filling 2,150 feet of the Haynes Intake Channel with engineered fill, leaving vacant space within the existing Haynes property. Waste generated from the project would primarily consist of over-excavated soil, in addition to nominal amounts of general waste. Construction debris would be recycled or transported to a landfill and disposed of appropriately. In accordance with AB 939, LADWP's construction contractor would ensure that source reduction techniques and recycling measures are incorporated into project construction. It is anticipated that the proposed project would generate approximately 8,800 CY of over-excavated soil during Phase I (anticipated to occur over a period of 15 months), and approximately 31,000 CY of over-excavated soil in Phase II (anticipated to occur over a period of 30 months). As the project involves filling the Haynes Intake Channel, the project would primarily be a soil import project and would not generate large amounts of waste for export. Any waste produced as a result of the project would be disposed of in compliance with state and local standards.

Several landfills throughout the County of Los Angeles could serve the project, as listed in Table 12. The total permitted throughput for all landfills is 37,075 CY per day, and approximately 180 million CY of capacity remain (County of Los Angeles 2017). Based on the estimate of waste material to be generated during the 45-

month project, 39,800 CY represents approximately 0.02% of the remaining capacity of existing Los Angeles County landfills. Therefore, the project would not generate solid waste in excess of state or local standards, or in excess of the capacity of local landfills, or otherwise impact the attainment of solid waste reduction goals; impacts would be less than significant.

Table 12 Existing Landfills

Landfill	Location	Estimated Closing Year	Maximum Daily Capacity (CY/Day)	Current Remaining Capacity (Million CY)
Antelope Valley	Palmdale	2039	4,800	16.48
Calabasas Landfill	Unincorporated area	2029	7,795	12.48
Chiquita Canyon Landfill	Unincorporated area	2047	6,730	60.12
Lancaster Landfill	Unincorporated area	2041	4,000	13.70
Sunshine Canyon Landfill	Los Angeles/unincorporated area	2037	13,750	77.31
		Total	37,075	180.09

Source: County of Los Angeles 2017. **Note:** CY = cubic yards.

e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No Impact. As previously discussed, the proposed project would generate various types of solid waste. In relation to the handling and disposal of this waste, LADWP would comply with all City of Long Beach, County of Los Angeles, and state solid waste diversion, reduction, and recycling mandates, including compliance with the Countywide Integrated WMP (County of Los Angeles 2017). No impact would occur.

References

County of Los Angeles. 2017. Countywide Integrated Waste Management Plan, 2017 Annual Report. Accessed April 2019. https://dpw.lacounty.gov/epd/swims/ShowDoc.aspx?id=6530&hp=yes&type=PDF.

3.20 Wildfire

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				\boxtimes

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION HAYNES GENERATING STATION INTAKE CHANNEL INFILL PROJECT

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b)	Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?				
c)	Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				\boxtimes
d)	Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?				

The California Department of Forestry and Fire Services (CAL FIRE) is responsible for designating fire hazard severity zones (FHSZs) within the State Responsibility Area throughout California. FHSZs are geographical areas with an elevated risk for wildfire hazard. The State Responsibility Area is the area for which the state assumes financial responsibility for fire suppression and protection. CAL FIRE also creates recommended maps for very high FHSZs within the Local Responsibility Area, which are then adopted, or modified and adopted, by local jurisdictions. Development within a State Responsibility Area is required to abide by specific development and design standards. A review of CAL FIRE's FHSZ maps and data revealed that the project site is not located within a State Responsibility Area or a very high FHSZ (CAL FIRE 2012). Nonetheless, a response has been provided for the following threshold questions.

a) Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. The proposed project involves filling the Haynes Intake Channel within the existing Haynes property, leaving vacant space. The project site is not located within an evacuation route nor would it impair an adopted emergency response plan. The project would result in no impact related to an adopted emergency response plan or emergency evacuation plan.

b) Due to slope, prevailing winds, and other factors, would the project exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No Impact. The project site and surrounding area are relatively flat with no slopes or other factors that could exacerbate wildfire risks. The project site is located in an urbanized area and not near wildland that is susceptible to prevailing winds that could exacerbate wildfire risks. Therefore, the project would not expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. No impact would occur related to wildfire risks or exposure.

c) Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

No Impact. The proposed project involves filling the Haynes Intake Channel within the existing Haynes property. The Haynes property has existing infrastructure, such as roads, water, power, and other utilities that serve the property. The project would not require the installation or maintenance of associated infrastructure. Therefore, no impact would occur.

d) Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact. The project site and surrounding area are flat and do not consist of slopes that would become unstable or result in drainage changes, flooding, or landslides. The proposed project would involve filling the Haynes Intake Channel, leaving vacant space. The proposed project would not involve the development of additional structures, nor is it located in an area that is susceptible to wildfire, downslope or downstream flooding, or landslides, and therefore would not expose people or structures to significant risks. Therefore, no impact would occur.

References

CAL FIRE (California Department of Forestry and Fire Protection). 2012. *California Fire Hazard Severity Zone Maps*. Accessed April 2019. https://www.fire.ca.gov/fire_prevention/fire_prevention_wildland_zones_maps.

3.21 Mandatory Findings of Significance

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				
b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?				
c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?				

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less-Than-Significant Impact with Mitigation Incorporated. As discussed in this IS/MND, impacts to biological, cultural (archaeological), and tribal cultural resources would be less than significant with mitigation incorporated.

Does the project have impacts that are individually limited, but cumulatively considerable? b) ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Less-Than-Significant Impact with Mitigation Incorporated. The following analysis discusses the project's potential to make a cumulatively considerable contribution to an environmental impact, by resource. Where it has been determined based on the analysis in this IS/MND that no impact would occur in relation to specific resources (i.e., agriculture and forestry resources, mineral resources, population and housing, public services, recreation, and wildfire), the project would inherently not result in a cumulatively considerable impact relative to those resources and no further discussion is provided. The proposed project would be located entirely within the Haynes property, a fully developed industrial site in a largely built-out urban area. Table 13 presents the list of cumulative projects in the area.

Cumulative Project/ Application No.	Location	De
		City of Long Bead
AES Battery Energy Storage	690 Studebaker Road	Modification of 18-015 building to include two

Table 13 Cumulative Projects

Project/			e t <i>t</i>		
Application No.	Location	Description	Status		
		City of Long Beach			
AES Battery Energy Storage System No. 1802-27	690 Studebaker Road	Modification of 18-015 reducing the scope of the building to include two instead of three battery storage buildings that are 38,800 square feet and 42 feet tall each	In plan check		
2nd Street and Pacific Coast Highway No. 1609-22	6400 East Pacific Coast Highway	95,000 square feet of retail uses, 55,000-square- foot grocery store, 25,000-square-foot health club/gym, 70,000 square feet of restaurant uses, and 1,150 parking spaces	Under construction		
No. 1811-05	300 Studebaker Road	Two concrete tilt-up industrial buildings totaling 139,500 square feet	In review		
City of Seal Beach					
Ocean Place Residential	1st Street and Marine Drive	32 DU single-family homes and neighborhood park	Under construction		

Note: DU = dwelling unit.

Aesthetics

The project involves filling 2,150 feet of the Haynes Intake Channel. A significant cumulative impact to aesthetics would occur where development of cumulative projects would combine to degrade visual quality or character, block important views, or result in a new source of light or glare. The geographic scope for analyzing cumulative impacts for aesthetics focuses on lands near the project area and within the surrounding viewshed. The cumulative projects in Table 13 are not located within the same viewshed as the project site and therefore would not, in combination with the proposed project, result in a cumulatively considerable impact to aesthetics.

Air Quality

Air pollution emissions, as defined by federal, state, and local agencies and regulations, are largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and SCAQMD develops and implements plans for future attainment of ambient air quality standards. In addition to the SCAQMD efforts, CARB has comprehensive regulatory programs in place for new and existing sources of air pollution.

Based on the cumulative nature of air pollution and the various mechanisms in place to reduce cumulative air pollutant emissions, project-level thresholds of significance for criteria pollutants, as analyzed in Section 3.3, Air Quality, are relevant in the determination of whether the project's individual emissions would be cumulatively considerable. The potential for the proposed project to result in a cumulatively considerable air quality impact is evaluated in Section 3.3(b). As discussed in Section 3.3(b), the project is not expected to result in cumulatively considerable emissions in the SCAB. As such, the project's impact to air quality would not be cumulatively considerable.

Biological Resources

Impacts to biological resources are considered potentially significant because the project would involve filling of jurisdictional waters where special-status species have the potential to occur, as well as EFH. Filling the Haynes Intake Channel could potentially directly and indirectly impact special-status species or managed species and EFH. Incorporation of avoidance and minimization measures, included in MM-BIO-1 through MM-BIO-6, would lessen and may eliminate the likelihood that managed species, unmanaged invertebrate and fish species, and EFH (eelgrass habitat) outside the direct impact areas would be adversely affected. Further, the project would be required to comply with state and federal regulations for all proposed project impacts to jurisdictional waters and would need to apply for and receive the appropriate approvals and permitting prior to project site and the immediate surroundings, which contain a limited amount of undeveloped land. As the cumulative projects are not located within the immediate surroundings, and proposed mitigation would reduce impacts to below a level of significance, the project's impacts, in combination with other cumulative projects, would not be cumulatively considerable.

Cultural Resources

Impacts to historical resources from the proposed project would be less than significant because no historical resources were reported on site. Impacts to archaeological resources would be mitigated by having a qualified archaeologist present during ground-disturbing activities (MM-CUL-1 and MM-CUL-2). Impacts related to the

inadvertent discovery of human remains would be avoided with compliance with California Health and Safety Code Section 7050.5. If human remains are discovered anywhere other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains can occur until the County Coroner has examined the remains.

Determination of cumulative impacts to cultural resources requires an evaluation of whether impacts of the proposed project and other cumulative projects, when taken as a whole, substantially diminish the number of historical or archaeological resources within the same or similar context or property type. The proposed project could have potentially significant impacts to unknown archaeological resources, and mitigation would be required to reduce adverse impacts to less than significant. It is anticipated that cumulative projects would also be subject to the same requirements of CEQA as the proposed project and would mitigate for impacts to cultural resources as necessary. These determinations would be made on a case-by-case basis, and the effects of cumulative development on cultural resources would be mitigated to the extent feasible in accordance with CEQA and other applicable legal requirements. Therefore, the proposed project's impacts to cultural resources would not be considered cumulatively considerable because the impacts are site specific and have been assessed and would be mitigated at a project- and site-specific level, and other cumulative projects in the area would be required to do the same.

Energy

Cumulative projects that could result in cumulative impacts to energy would generate wasteful, inefficient, or unnecessary use of energy. However, the project would not result in wasteful, inefficient, or unnecessary use of energy in large part due to the short-term and temporary nature of the construction period, and because there is no proposed operational energy use. Energy use would occur during construction through the use of heavy-duty construction equipment, delivery trucks, haul trucks, and travel to and from the project area. Once construction activities cease, petroleum use from off-road equipment and transportation vehicles would end. Cumulative projects would be required to minimize energy use and would be built and operated in accordance with all existing, applicable regulations at the time of construction. Because of the short-term nature of construction and the relatively small scale of the project, cumulative projects would not result in cumulatively considerable impacts related to energy.

Geology and Soils

The geographic extent considered for potential cumulative impacts to people and structures related to geologic and seismic hazards is more localized and site-specific than for many other environmental impacts. Impacts related to earthquakes and adverse soil conditions would be less than significant as a result of the required compliance with applicable building codes and geologic hazard regulations. Geologic/soil issues related to local, site-specific soil conditions; ground response to earthquakes; and the potential for adverse soil conditions to damage the proposed project's structural components would be less than significant. Only those cumulative

projects that are adjacent to the proposed project site would potentially contribute to creating a cumulatively considerable impact related to geology and soils. However, none of the cumulative projects in the area are adjacent to the proposed project (the closest being approximately 0.5 miles away). For this reason, the proposed project's impacts with respect to geology and soils would not be cumulatively considerable.

Greenhouse Gas Emissions

The cumulative nature of climate change and the project's potential to contribute to climate change impacts associated with project-generated GHG emissions is evaluated in Section 3.8, Greenhouse Gas Emissions. As explained in Section 3.8, GHG impacts are recognized exclusively as cumulative impacts, and there are no non-cumulative GHG emission impacts from a climate change perspective. The supporting documentation for the 2010 CEQA amendments indicates that the impact of GHG emissions should be considered in the context of a cumulative impact, rather than a project-level impact, and an environmental document must analyze the incremental contribution of a project to GHG levels and determine whether those emissions are cumulatively considerable. As discussed in Section 3.8, the project would not result in a cumulatively considerable impact related to GHG emissions.

Hazards and Hazardous Materials

Cumulative impacts related to hazards and hazardous materials could result from projects that combine to increase exposure to hazards and hazardous materials. The proposed project would have less-than-significant impacts related to hazardous materials with mitigation measures incorporated. The proposed project would comply with all federal, state, and local regulations pertaining to the use, transport, and release of hazardous materials. The potential release of hazardous materials during construction and ground-disturbing activities would be reduced in compliance with the mitigation measures outlined in Section 3.9. Although cumulative projects have the potential to result in potentially significant impacts to hazards and hazardous materials, these projects would also be subject to federal, state, and local regulations that would reduce potential impacts to less than significant, including the application of mitigation measures as necessary. Therefore, the proposed project, combined with the cumulative projects provided in Table 13, would not result in a cumulatively considerable impact related to hazardous materials.

Hydrology and Water Quality

The geographic scope of cumulative effects on hydrology and water quality is the watersheds affected by the proposed project. The temporal scope of the proposed project is limited to the construction phases because there are no proposed operational aspects of the project. The potential impacts of the proposed project would be from alterations to water quality as a result of the potential for erosion, siltation, or sedimentation of adjacent water bodies, which would be reduced to less than significant through compliance with regulations.

For such short-term impacts, the proposed project, along with other projects occurring in the area, would be required to comply with applicable federal, state, and local water quality regulations. The proposed project, along with other projects more than 1 acre in size (which includes most of the cumulative projects listed), would be required to obtain coverage under the NPDES Construction General Permit, which requires implementation of stormwater BMPs that effectively control erosion and sedimentation and construction-related pollutants in runoff. The various NPDES permits required are aimed at maintaining the beneficial uses of the water bodies in the RWQCB Basin Plan and meeting water quality objectives associated with specific pollutants of concern. Because significant adverse water quality is often linked to the cumulative effects of various projects and land uses, the provisions within NPDES permits, by their nature, seek to address cumulative conditions. Further, with implementation of BMPs, the project's potential water quality impacts would be reduced to below a level of significance. Therefore, with compliance with regulatory requirements and application of appropriate mitigation, impacts would not be cumulatively considerable.

Land Use and Planning

Cumulative land use impacts would result from projects that contribute to development that is inconsistent with applicable plans or incompatible with existing or planned uses. The project would result in less-thansignificant impacts to land use because it would be compatible with the site's land use designation of Industrial/Energy/Storage and zoning designation of PD-1. The project site is located within the coastal zone and the CCC permit jurisdiction and would be required to apply for and comply with the regulations of a Coastal Development Permit issued by the CCC. All the cumulative projects in Table 13 would be subject to the land use and zoning policies underlying each respective project site. Further, the cumulative projects in Table 13 do not involve alterations to or filling of coastal waters. Any cumulative projects located within the coastal zone would be subject to applicable development regulations. Therefore, cumulative projects would not combine with the proposed project to create a cumulatively considerable impact.

Noise

Noise associated with project construction would primarily affect residential areas adjacent to Haynes to the south and to the east. The closest cumulative project sites, as listed in Table 13, would be the AES Battery Energy Storage System located at 690 Studebaker Road, approximately 0.5 miles northwest of the proposed project and 0.6 miles northwest of the affected residential areas. Construction schedules and activities for these cumulative projects are currently unknown; therefore, potential construction noise impacts associated with simultaneous projects are speculative. However, although multiple construction activities may occur simultaneously at the project site and at the cumulative project sites, given the distance between the cumulative project sites and the affected residences as well as the noise attenuation created by intervening structures and other variables such as atmospheric absorption, the additional contribution to the ambient noise level would be imperceptible at less than 1 decibel. Additionally, the proposed project, as well as the cumulative projects,

would comply with City of Long Beach and City of Seal Beach noise regulations limiting hours of construction. Therefore, the proposed project's impacts related to noise would not be cumulatively considerable.

Transportation

As discussed in Section 3.17, Transportation, using the Small Project screening criteria and as shown in project trip generation (Tables 10 and 11), Phases I and II of the proposed project would not warrant a VMT- or LOS-based traffic analysis. Impacts would be less than significant.

Tribal Cultural Resources

Potential impacts to tribal cultural resources would be mitigated by having a Native American monitor present during ground-disturbing activities (MM-TCR-1). Impacts related to the inadvertent discovery of human remains would be avoided with compliance with California Health and Safety Code Section 7050.5. If human remains are discovered anywhere other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains can occur until the County Coroner has examined the remains (MM-TCR-2).

Determination of cumulative impacts to tribal cultural resources involves evaluation of whether the impacts of the proposed project and other cumulative projects, when taken as a whole, substantially diminish the number of tribal cultural resources within the same or similar context or property type. The proposed project could have potentially significant impacts to unknown tribal cultural resources, and mitigation would be required to reduce adverse impacts to less than significant. It is anticipated that cumulative projects would be subject to the same requirements of CEQA as the proposed project and would mitigate for impacts to tribal cultural resources as necessary. Further, cumulative projects would be required to conduct formal consultation under AB 52. These determinations would be made on a case-by-case basis, and the effects of cumulative development on tribal resources would be mitigated to the extent feasible in accordance with CEQA, AB 52, and other applicable legal requirements. Therefore, impacts to tribal cultural resources would not be considered cumulatively considerable because the impacts are site specific, have been assessed and would be mitigated at a project- and site-specific level, and other cumulative projects in the area would be required to do the same.

Utilities and Service Systems

Cumulative impacts to utilities and service systems would result from projects that combine to create a demand for water, wastewater, stormwater, and solid waste facilities beyond the capacity of existing facilities. The proposed project would result in less-than-significant impact related to solid waste, because the project would generate over-excavated soil and a nominal amount of general construction waste. No long-term operational generation of solid waste would be associated with the proposed project. Construction debris and overexcavated soil would be recycled or transported to a landfill site and disposed of appropriately. In accordance with AB 939, LADWP's construction contractor would ensure that source reduction techniques and recycling measures are incorporated into project construction.

Development of cumulative projects would increase land use intensity in the area, resulting in increased solid waste generation in the service area for Los Angeles County landfills. AB 939, or the Integrated Waste Management Act of 1989, mandates that cities divert 50% of the total solid waste generated away from landfills. In order to maintain state requirements of diverting 50% of solid waste and to offset impacts associated with solid waste, the proposed project and all cumulative projects would be required to implement waste reduction, diversion, and recycling during both construction and operation. Additionally, AB 341 will require local agencies to adopt strategies that will enable 75% diversion of all solid waste by 2020. Through compliance with waste diversion requirements, and due to the recycling collection features that would be part of the proposed project design and the design of many typical urban infill projects, impacts would not be cumulatively considerable.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less-Than-Significant Impact with Mitigation Incorporated. Based on the analysis in this IS/MND, for all resource topics, the proposed project would have no impact, less-than-significant impacts, or less-than-significant impacts with mitigation incorporated. Therefore, upon implementation of the required mitigation measures, substantial adverse impacts on human beings would not occur as a result of the proposed project.

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