



PUBLIC NOTICE

**U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT**

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**APPLICATION FOR PERMIT
Haynes Generating Station Inlet Channel Fill Project**

Public Notice/Application No.: SPL-2019-00544-VN

Project: Haynes Generating Station Inlet Channel Fill Project

Comment Period: May 25, 2021 – June 25, 2021

Project Manager: Vanessa Navarro; (213) 452-3420; Vanessa.Navarro@usace.army.mil

Applicant

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Location

The proposed project would occur at Haynes Generating Station (Haynes) located at 6801 East 2nd Street, Long Beach, Los Angeles County, California (lat: 33.763927°, long: -118.094252°). Haynes is situated just inland from the Pacific Ocean and is bordered by 2nd Street to the south, the San Gabriel River Channel to the west, State Route 22 to the north, and an Orange County flood control channel to the east.

Activity

The Los Angeles Department of Water and Power (LADWP) is proposing to completely fill in 2,150 linear feet of the Haynes Intake Channel within Haynes using engineered fill. The infill area is expected to be used for potential future development at Haynes. The proposed project would occur over two phases: Phase I would consist of filling the northern 475 feet of the Haynes Intake Channel, and Phase II would consist of filling the remainder of the channel to approximately 2 feet south of the 2nd Street bridge, for a total of approximately 2,150 feet. The duration of Phase I construction activities would be approximately 15 months, with proposed construction scheduled to begin in late 2021 and end in 2023. The duration of Phase II construction activities would be approximately 30 months, beginning in 2030 and ending in 2032. This proposal is for a 10-year Standard Individual Permit. For more information see the Additional Project Information section below.

Submittal of Public Comments

Interested parties are hereby notified an application has been received for a Department of the Army permit for the activity described herein and shown on the attached drawing(s). We invite you to

review today's public notice and provide views on the proposed work. By providing substantive, site-specific comments to the Corps Regulatory Division, you provide information that supports the Corps' decision-making process. All comments received during the comment period become part of the record and will be considered in the decision. This permit will be issued, issued with special conditions, or denied under 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act.

During the Coronavirus Health Emergency, Regulatory Program staff are teleworking. Please do not mail hard copy documents, including comments to any Regulatory staff. Instead, your comments should be submitted electronically to: Vanessa.Navarro@usace.army.mil. Should you have any questions or concerns about the Corps' proposed action or our comment period, you may contact Vanessa Navarro directly at (213) 452-3420.

The mission of the U.S. Army Corps of Engineers Regulatory Program is to protect the Nation's aquatic resources, while allowing reasonable development through fair, flexible and balanced permit decisions. The Corps evaluates permit applications for essentially all construction activities that occur in the Nation's waters, including wetlands. The Regulatory Program in the Los Angeles District is executed to protect aquatic resources by developing and implementing short- and long-term initiatives to improve regulatory products, processes, program transparency, and customer feedback considering current staffing levels and historical funding trends.

Corps permits are necessary for any work, including construction and dredging, in the Nation's navigable water and their tributary waters. The Corps balances the reasonably foreseeable benefits and detriments of proposed projects and makes permit decisions that recognize the essential values of the Nation's aquatic ecosystems to the general public, as well as the property rights of private citizens who want to use their land. The Corps strives to make its permit decisions in a timely manner that minimizes impacts to the regulated public.

During the permit process, the Corps considers the views of other Federal, state and local agencies, interest groups, and the general public. The results of this careful public interest review are fair and equitable decisions that allow reasonable use of private property, infrastructure development, and growth of the economy, while offsetting the authorized impacts to the waters of the United States. The permit review process serves to first avoid and then minimize adverse effects of projects on aquatic resources to the maximum practicable extent. Any remaining unavoidable adverse impacts to the aquatic environment are offset by compensatory mitigation requirements, which may include restoration, enhancement, establishment, and/or preservation of aquatic ecosystem system functions and services.

Evaluation Factors

The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof. Factors that will be considered include conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people. In addition, if the proposal would discharge dredged or fill material,

the evaluation of the activity will include application of the EPA Guidelines (40 CFR Part 230) as required by Section 404 (b)(1) of the Clean Water Act.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Preliminary Review of Selected Factors

EIS Determination- A preliminary determination has been made an environmental impact statement is not required for the proposed work.

Water Quality- The applicant is required to obtain water quality certification, under Section 401 of the Clean Water Act, from the California Regional Water Quality Control Board (RWQCB). Section 401 requires any applicant for an individual Section 404 permit provide proof of water quality certification (WQC) to the Corps of Engineers prior to permit issuance. The LADWP submitted a complete Section 401 WQC application for the Haynes Generating Station Intake Channel Infill Project on February 4, 2021. Pursuant to 40 CFR part 121.6 the Corps established the reasonable period of time for review as 90 days (or May 5, 2021). On May 5, 2021 the Los Angeles RWQCB denied this application for a Section 401 WQC, citing 40 CFR part 121.7. The LADWP must submit a new 401 WQC application to the Los Angeles RWQCB and restart the Section 401 process.

Coastal Zone Management- The applicant has certified the proposed activity would comply with and would be conducted in a manner consistent with the approved State Coastal Zone Management Program. For those projects in or affecting the coastal zone, the Federal Coastal Zone Management Act requires that prior to issuing the Corps authorization for the project, the applicant must obtain concurrence from the California Coastal Commission the project is consistent with the State's Coastal Zone Management Plan. The District Engineer hereby requests the California Coastal Commission's concurrence or non-concurrence.

Essential Fish Habitat- The Corps of Engineers preliminary determination indicates the proposed activity may adversely affect EFH. Pursuant to Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), the Los Angeles District hereby requests initiation of EFH consultation for the proposed project. This notice initiates the EFH consultation requirements of the Act (via abbreviated consultation). In order to comply with the Magnuson-Stevens Fishery Conservation and Management Act (MSA), pursuant to 50 CFR 600.920(e)(3), I am providing, enclosing, or otherwise identifying the following information:

1. Description of the proposed action: see project description on page 11 of this public notice.
2. On-site inspection information: The LADWP prepared a Marine Biological Resources Report (available upon request) dated December 2020, that included information based on the review of background documents and a series of field surveys conducted by Dudek and MBC Aquatic Sciences (MBC). The report contains information on documented occurrences of biological resources including plant species and fish, invertebrate, and other wildlife species, which was obtained through literature

review and database searches. Following the initial literature review, focused surveys were conducted in September, October, and December 2019. The survey boundaries included two areas: the proposed project area and the potential eelgrass mitigation site. The project area is the portion of the Haynes Intake Channel north of the southern edge of the 2nd Street bridge, which would be filled under the proposed project. Since it was known prior to the surveys that eelgrass was present in the Haynes Intake Channel where the proposed infill would occur, the channel south of 2nd Street was surveyed to identify potential eelgrass mitigation areas.

Focused surveys included water quality sampling and testing, subsurface eelgrass bed mapping, marine fish and invertebrate surveys, an EFH assessment, marine bird surveys, and jurisdictional wetland assessment and mapping. All terrestrial and aquatic fieldwork was conducted by Dudek senior marine biologist John Davis and marine biologists Nick Lorenzen and Andrea Dransfield on September 11–12, 2019. Side scan sonar surveys for eelgrass were conducted on October 22, 2019, and bathymetric surveys were conducted on December 2 and 3, 2019.

The Haynes Intake Channel within the project site includes soft-bottom habitat; however, riprap is present near the 2nd Street bridge, and the banks of the channel are stabilized with a grouted stone surface. The focus of the benthic surveys over soft-bottom habitat was on eelgrass, demersal fish, macro infauna and epifaunal invertebrates. Eelgrass baseline surveys were conducted within the project site in accordance with the California Eelgrass Mitigation Policy (CEMP). Eelgrass surveys were conducted using both visual (scientific dive) and acoustic (sonar) survey methods. MBC was contracted by Dudek to conduct an acoustic survey of eelgrass and a bathymetric survey of the Haynes Intake Channel. The side scan sonar survey for eelgrass in the Haynes Intake Channel was conducted on October 22, 2019. An Edgetech 4125 Side Scan Sonar (600 and 1,600 kilohertz) was used to acoustically collect an image of the seafloor to determine the location of eelgrass in the Haynes Intake Channel. MBC also conducted a bathymetric survey of the Haynes Intake Channel on December 2 and 3, 2019.

The overall average temperature recorded in the Haynes Intake Channel was 23.56°C (74.41°F; n = 30). This is slightly warmer than the temperature at the mouth of the San Gabriel River, which ranges from 18°C to 22°C (64°F to 72°F) during late summer and fall, as well as the average summer temperature of 21.3°C (70.3°F) in Alamitos Bay. Salinity values in the Haynes Intake Channel ranged from 32.80 to 34.00 psu.

The proposed project is located within a general area designated as EFH for two Fishery Management Plans (FMPs): Coastal Pelagic Species FMP and Pacific Coast Groundfish FMP. Few species covered by the applicable FMPs are likely to occur in or near the project site, based on habitat suitability, species observations, and previous data. Only one FMP-managed species, topsmelt (*Atherinops affinis*), was directly observed during the field surveys of the Haynes Intake Channel. Four species of marine algae were found in the survey area. Of these species, three were native: acid weed (*Desmarestia* sp.), red algae (*Plocamium cartilagineum*), and sea lettuce (*Ulva lactuca*); one was non-native: Japanese wireweed (*Sargassum muticum*). A total of 25 invertebrate species were observed during surveys. All invertebrate species encountered except ghost anemone (*Diadumene leucolena*) were native, and none was considered a managed species. A list of these invertebrates and other wildlife observed on site is included in the Marine Biological Resources Report (available upon request). A total of 12 native species of fish were observed during surveys.

The Haynes Intake Channel itself is not specifically mapped by NOAA as EFH under any FMP. However, the soft-bottom substrate of the Haynes Intake Channel north of 2nd Street contains the seagrass Habitat Area of Particular Concern (HAPC) type—specifically, eelgrass beds—discussed in the Pacific Coast Groundfish FMP. Eelgrass was generally evenly distributed across the project site,

with 0.70 vegetated acre mapped. Of these 0.70 vegetative acre, 0.04 acre are mapped as 1% to 25% cover, 0.35 acre are mapped as 26% to 50% cover, and 0.31 acre are mapped as 76% to 100% cover. Depths of eelgrass locations ranged from 0.33 to 20.67 feet (0.01 to 6.30 meters) across the Haynes Intake Channel. In total, 0.70 vegetated acre were mapped and an additional 1.49 unvegetated acres (i.e., within the 5-meter [16-foot] buffer) were mapped in the project site, with an overall average percent cover of 35%. Within the project site, there was a 32% (i.e., 0.70 acre/2.19 acres) vegetated bottom cover within eelgrass habitat.

However, 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, 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. This fragmented nature of the eelgrass habitat in the Haynes Intake Channel is evidenced in the low abundance of adult and larval fishery species found over a span of many years (MBC 2009 and 2019). Nonetheless, given the importance of eelgrass to the broader marine environment and its formal designations under the Magnuson-Stevens Act, the eelgrass habitat within the Haynes Intake Channel is recognized as both EFH and a HAPC.

3. Analysis of the potential adverse effects on EFH: The proposed project would result in both direct and indirect impacts to eelgrass habitat. Direct impacts to a HAPC and to the Pacific Groundfish FMP are the same as impacts to eelgrass habitat. As indicated above, the EFH within the constructed Haynes Intake Channel is of poor quality. The project would permanently remove approximately 2.19 acres of eelgrass habitat for Phase I and II, which includes 0.70 acre of vegetated and 1.49 acres of unvegetated habitat (mapped within the 5-meter buffer). Although the habitat is not considered high quality EFH, this impact would be considered adverse absent mitigation.

The eelgrass beds within the project site are smaller and less dense than, and not as prolific as, the eelgrass beds located south of the 2nd Street bridge, in the potential mitigation site (Figures 9A and 9B). 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. 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, 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. Alamitos Bay, and to a lesser extent the lower San Gabriel River, will continue to function as fish nursery grounds and bird foraging habitat.

Due to the location, extent, and density of the eelgrass beds in the project site (i.e., the Haynes Intake Channel north of East 2nd Street), prevalence of sea lettuce, and low diversity of fish and invertebrate species, impacts to these species, including topsmelt, would be less than significant. Still, the proposed project would represent a direct impact to marine organisms that do reside in the Haynes Intake Channel because they would be trapped north of the cofferdam at the outset of project

construction. Therefore, as part of project construction procedures, after the installation of the cofferdams but before other construction activities begin, marine wildlife (including managed fish and invertebrate species) would be collected via seining, netting, and/or other methods of capture and relocated south of the cofferdam.

The project could also 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 turbidity and sedimentation. The water column experiences 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.

Short-term water quality impacts (e.g., turbidity) may have minor temporary effects on resident fish and invertebrates; however, these impacts would likely not affect the success of fish or invertebrate populations due to the ability of the invertebrates and juvenile and adult fish to relocate to adjacent areas. Temporary relocation of these mobile species would not result in adverse impacts with regard to competition, predation, or spawning. Therefore, indirect impacts to managed fish and invertebrate species would be less than significant.

4. Proposed minimization, conservation, or mitigation measures: Best Management Practices would be used during all project-related activities.

As described in the CEMP (NMFS 2014a), when impacts to eelgrass would occur, an Eelgrass and Marine Habitat Mitigation and Monitoring Plan to achieve no net loss in eelgrass function should be developed. Currently, the project site is not located within an adopted comprehensive management plan area for eelgrass, and due to the presence of a potential mitigation site in the Haynes Intake Channel south of 2nd Street, an option for mitigation would be to provide in-kind mitigation within the potential mitigation site that would consist of the creation, restoration, or enhancement of eelgrass habitat.

Prior to project implementation, the LADWP would 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. Preference in the Mitigation Plan would be given to in-kind replacement of the eelgrass habitat within the southern section of the Haynes Intake Channel (south of the 2nd Street bridge). Such mitigation would 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 would 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 would be given preference over out-of-kind mitigation.

To establish the quality and quantity of potential eelgrass mitigation area in the proposed mitigation site south of the 2nd Street bridge, the site was surveyed similarly to the project site within Haynes north of the 2nd Street bridge. 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 on Figure 9A and Figure 9B.

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.

Side scan sonar surveys (ground-truthed by dive surveys) revealed the presence of eelgrass in the potential mitigation site south of East 2nd Street. A total of 10.07 acres of eelgrass habitat was mapped within the potential mitigation site, including 5.44 vegetated acres and 4.63 unvegetated acres. Within the potential mitigation site, eelgrass was generally evenly distributed, with 0.22 vegetated acre mapped as 26% to 50% cover; 2.91 vegetated acres mapped as 51% to 75% cover; and 2.30 vegetated acres mapped as 76% to 100% cover. Within the potential mitigation site, there was 54% (i.e., 5.44 acres/10.07 acres) vegetated bottom cover within eelgrass habitat.

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 regions 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. 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. This higher ratio is used to counter regional risk 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). The table below provides a summary of the calculation of eelgrass mitigation for this project.

Starting and Final Mitigation Ratios and Acres for Impacts to Eelgrass Habitat					
Eelgrass Habitat	Impact Area (acres)	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

As shown in the above table, the LADWP proposes to plant approximately 2.76 acres 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).

Overall, the southern section of Haynes Intake Channel could potentially be used as an area for eelgrass mitigation, thereby fulfilling mitigation requirements immediately adjacent to Haynes. Although the potential mitigation site has steeper banks, an abundance of sea lettuce, some invasive Japanese wireweed, and patchy to dense eelgrass beds, this location has better water quality than the project site due to its distance from the intakes.

5. Conclusions regarding effects of the proposed project on EFH: As discussed above, based on the current quality of the habitat, including species diversity and population, in the Haynes Intake Channel and the lack of connectivity between the channel and the open ocean, the direct and indirect impacts created by the project are not anticipated to reduce the quality and/or quantity of EFH. Therefore, it is my initial determination the proposed activity may adversely affect but would not have a substantial adverse impact on EFH or federally managed fisheries in California waters. My final determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the NOAA Fisheries. If I do not receive written comments (regular mail or e-mail) within the 30-day notification period, I will assume concurrence by NOAA Fisheries with the proposed mitigation measures.

Cultural Resources- The latest version of the National Register of Historic Places (NRHP) has been consulted and this site is not listed. However, because the Haynes Intake Channel is over 50 years old, the LADWP is in the process of hiring an Architectural Historian to evaluate the channel to determine if it is eligible for listing in the NRHP. This review constitutes the extent of cultural resources investigations by the District Engineer, and he is otherwise unaware of the presence of such resources.

Endangered Species- Preliminary determinations indicate the proposed activity would not affect federally-listed endangered or threatened species, or their critical habitat. Per the U.S. Fish and Wildlife Service's (FWS) critical habitat mapper, there is no designated critical habitat within the action area. Additionally, per the California Natural Diversity Database, no federally listed species are known to occur within the action area. Therefore, formal consultation under Section 7 of the Endangered Species Act does not appear to be required at this time. However, the Marine Biological Resources Report submitted by LADWP indicates two federally listed species are known to occur in the vicinity of the project area: California least tern (*Sternula antillarum browni*) and green sea turtle (*Chelonia mydas*).

California least tern, which is federally listed as endangered, as well as fully protected in California, has been known to roost on booms within the southern Haynes Intake Channel south of East 2nd Street, outside the proposed project site. However, habitat within the Haynes Intake Channel north of East 2nd Street, and in the Haynes Intake Channel generally, is poor foraging habitat because of the low numbers and diversity of fish prey supported by the channel. California least tern feed on small fish in nearshore waters, estuaries, and lagoons, where they fly relatively low over the water and dive on prey at the surface. Because of the feeding habits of California least tern, only species occurring very near the surface are important prey items. Although the Haynes Intake Channel does support topsmelt, this species occurs in the channel in low numbers compared to more natural habitats nearby, including the San Gabriel River, Alamitos Bay, and the Seal Beach National Wildlife Refuge. This species and other prey species for least tern occur in greater numbers both in these locations and in nearshore waters.

In addition, the loss of the northern part of the Haynes Intake Channel represents a small fraction of the available habitats in the area, most of which are of higher quality. A sampling location in the San Gabriel River, approximately 4,368 linear feet (0.83 miles) downstream and adjacent to Haynes, provides natural, better-quality habitat for fish and bird species compared to the Haynes Intake Channel. In addition, California least terns nesting at the nearest known colony, at the Seal Beach National Wildlife Refuge, have better access not only to resources in nearshore waters but also to prey in the estuary at the Seal Beach National Wildlife Refuge itself. These areas and the San Gabriel River will continue to function as fish nursery grounds and bird foraging habitat in the future. No nesting habitat occurs on or near the Haynes Intake Channel, so California least tern is not expected to nest on the project site. In general, the Haynes Intake Channel was not found to be productive for fish overall, and likely is not an important feeding location for California least terns. Impacts from the loss of 7.64 acres of Haynes Intake Channel, supporting poor quality habitat, would not be considered a significant impact to this species.

Green sea turtles have a habitat preference for the warmer waters in the San Gabriel River, which are warmed by the ocean-water once-through cooling (OTC) system discharges from Haynes. Although green sea turtles are present in the San Gabriel River, they are unlikely to access the Haynes Intake Channel given that the intake for the channel is from Alamitos Bay and has metal bar racks that prevent access to the channel by immature and adult green sea turtles and larger fish. 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. However, a few occurrences of green sea turtles with fishhooks and monofilament fishing line have been reported within the Haynes Intake Channel. Two healthy immature turtles (32.5 and 26 kilograms [71 and 57 pounds]) were found in the Haynes Intake Channel in 2017. Both had shells more than 25 inches in width and length and could not have passed between the metal bars of the intake structure in Alamitos Bay. Therefore, the method by which the two turtles entered the Haynes Intake Channel is unconfirmed, and it is assumed that human intervention was involved. Upon discovery of the turtles, LADWP alerted NMFS, the Long Beach Aquarium of the Pacific, and MBC to rescue the turtles per regulatory requirements. In 2008, MBC had reported an occurrence of a green sea turtle in the Haynes Intake Channel; the turtle was captured and removed from the channel. Following this incident, LADWP inspected the Haynes Intake Channel's bar racks and intake screens, and all were in good working condition, effectively restricting access to the channel for green sea turtles; therefore, the occurrence of this turtle is highly unusual and suspect.

Dudek's biologist divers surveyed the Haynes Intake Channel in 2019 for more than 17.5 hours and observed no sea turtles. MBC (2009) did not observe any green sea turtles in the channel during focused surveys. In 2018, Dudek contacted NMFS to receive additional recent sea turtle stranding data for Long Beach Harbor and waterways. They provided data regarding two recent turtle strandings in 2016 that were outside the project area. Based on the above information, green sea turtles are highly unlikely to be able to access the Haynes Intake Channel through the 6-inch vertical gaps in the metal bar racks, and this species is not expected to occur in the channel without human intervention. The Haynes Intake Channel is not occupied by green sea turtles; however, as a precautionary measure, pre-construction training and biological monitoring during dewatering activities would occur to reduce any potential impacts to green sea turtles, in the unlikely event that any gain access to the channel.

Public Hearing- Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearing shall state with particularity the reasons for holding a public hearing.

Proposed Activity for Which a Permit is Required

Basic Project Purpose- The basic project purpose comprises the fundamental, essential, or irreducible purpose of the proposed project, and is used by the Corps to determine whether the applicant's project is water dependent (i.e., requires access or proximity to or siting within the special aquatic site to fulfill its basic purpose). The basic project purpose for the proposed project is energy development. The project is not water dependent.

Overall Project Purpose- The overall project purpose serves as the basis for the Corps' 404(b)(1) alternatives analysis and is determined by further defining the basic project purpose in a manner that more specifically describes the applicant's goals for the project, and which allows a reasonable range of alternatives to be analyzed. The overall project purpose for the proposed project is to fill Haynes Intake Channel to provide space for renewable energy technology at Haynes Generating Station, within the city of Long Beach.

Additional Project Information

Baseline information- The immediate surroundings of the project site are mostly developed lands interspersed with open space, golf courses, and small local parks and recreational facilities. Land uses near Haynes include residential and commercial developments to the north, east, and south;

industrial and commercial associated with the Boeing Integrated Defense Systems Specific Plan to the southeast; open space, oil and gas extraction, and recreational land uses within the Los Alamitos Retarding Basin and Los Cerritos Wetlands Complex (Wetlands Complex) properties to the southwest; and the San Gabriel River channel to the west, with the AES Alamitos Generating Station immediately across the San Gabriel River.

The site of Haynes 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 OTC system for generator cooling, drawing water from a marine bulkhead intake structure located in the southeast corner of Alamitos Bay Marina, on the west side of the San Gabriel River channel. From the marina, the water passes beneath the San Gabriel River channel via seven 1,150-foot-long enclosed pipes. An open channel extends from the east side of the San Gabriel River approximately 1 mile northeast 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 (Figure 1, Project Site Location). The OTC water was 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 channel, 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 Units 5 and 6 OTC system, the simple cycle generation system uses a closed-cycle dry cooling system; therefore, upon commissioning of the simple cycle generation system, the Units 5 and 6 OTC systems were decommissioned. The original steam-boiler Units 1 and 2, including the OTC system, remain operational. However, in accordance with an agreement between LADWP and the California State Water Resources Control Board pursuant to the Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling (OTC Policy), all remaining OTC systems will be removed from service by no later than the end of 2029.

The Haynes Intake Channel is approximately 1.5 miles long, runs south to north, and terminates within Haynes Generating Station. It has been in operation for nearly 60 years. Within Haynes, the intake channel is trapezoidal in cross-section and has earthen embankments that have been stabilized with a grouted stone material. The channel has a depth of approximately 26 to 28 feet when measured from the top of bank. The average width is 30 feet at the bottom of the channel and 165 feet at the top of bank. The actual width at the top of bank within the project boundaries ranges from approximately 140 feet in the northern portions to approximately 185 feet in the southern portions.

The channel conveys surface water to Haynes from a bulkhead intake structure located to the south in Alamitos Bay. Water passes through seven 8-foot-diameter underground conduits fitted with vertical trash bars. The underground conduits measure approximately 1,150 feet in length and transport water from Alamitos Bay underneath the San Gabriel River and Pacific Coast Highway. Only six of the seven intake conduits are used during normal operation. The velocity through the intake conduits is 5.0 feet per second. The calculated average velocity in the Haynes Intake Channel is 3.2 feet per

second. Ocean water is drawn into the channel from the Pacific Ocean via Alamitos Bay by the Haynes generation unit condenser pumps, so the system is entirely marine. However, the water levels in the open channel, which is physically segregated from the open water of Alamitos Bay by the closed conduits, are regulated primarily by the continuously running OTC condenser pumps rather than the local tidal cycles. The pumps control the velocity and flow of water. Therefore, depending on pumping rates, water levels in the channel may be higher or lower than tide levels at any given time.

Project description- The proposed infill project would occur in a phased manner based on the retirement of the individual OTC systems; cooling water for OTC units is withdrawn through intakes along the Haynes Intake Channel. Generation Units 5 and 6 were decommissioned and removed from service in 2013, and, as a result, the use of OTC is no longer needed to generate power from these units. These units were replaced with six 100 MW Simple Cycle Gas Turbines, which use closed cycle cooling. Since the intake channel is no longer needed for Units 5 and 6, it is planned to fill in the northernmost approximately 475 feet of the Haynes Intake Channel, but staying north of the Unit 8 pumps, which are still operational. This part of the project is considered Phase I (see Figure 2, Project Phasing). Phase I of the Project is scheduled to begin in late 2021 and be completed in 2023, a period of approximately 15 months. Phase I of the project would have the following construction process:

- 1) Phase I Cofferdam Installation – A cofferdam would be constructed across the Haynes Intake Channel at 475 feet from the northernmost end to isolate the portion of the channel under construction from the upstream portion. The cofferdam would allow the Haynes Intake Channel to be pumped dry before demolition, excavation, and filling activities begin and to retain the water on the upstream (south) side of the cofferdam during the filling of the area on the downstream (north) 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.
- 2) Phase I 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 to the north of the cofferdam and the removal of groundwater to prevent intrusion into the channel during the infilling process.
 - a. Haynes Intake Channel Surface Water Dewatering – The water within the Haynes Intake Channel north of the cofferdam (i.e., within the project site, northernmost 475 feet of the channel) would generally be of the same quality as the water in the channel south of the cofferdam. To avoid turbidity and/or sedimentation in the Haynes Intake Channel south of the cofferdam, a filtration system would be employed. All necessary dewatering permits for this work would be obtained prior to discharging this water into the Haynes Intake Channel.
 - b. Groundwater Dewatering – 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 would be achieved with wellpoints, which are small-diameter tubes 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 that can operate at greater depths but require a small submersible pump in each well. Wells would be placed within and outside of waters of the U.S. 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 excavation of the channel. 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 channel. 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 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. If groundwater is to be discharged back into the Haynes Intake Channel south of the cofferdam, LADWP would obtain the necessary groundwater dewatering permits prior to any discharge.

- 3) Phase I Infilling the Haynes Intake Channel – Once the channel is drained, the process of infilling the channel would proceed in several stages. Based on preliminary geotechnical investigations, it has been recommended that the bottom of the channel be over-excavated approximately 5 feet below the current channel bottom and horizontally across an estimated 100 feet to provide a stable load-bearing foundation for future facility development. Following the over-excavation, LADWP would install a structurally stable base comprised of coarse aggregate material, such as crushed stone. After the 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. Equipment used during this task would include excavators, graders, dozers, backhoe loaders, vibratory drum rollers, sheepsfoot drum roller, fuel/lube trucks, and water trucks.
- 4) Phase I Removal of Equipment – After the Haynes Intake Channel infilling is complete, the dewatering wells and equipment would be removed and the well holes backfilled. When the project area in the Haynes Intake Channel for Phase 1 has been filled, the cofferdam would remain in place until Phase II.

Haynes Units 1, 2, and 8 are still operational, but will be removed from service by December 31, 2029. Therefore, the balance of the Haynes Intake Channel south of Phase I, which is approximately 1,675 feet in length, encompassing the Units 1, 2, and 8 pumps and extending to the southern edge of the 2nd Street bridge, would be Phase II of the proposed project. Phase II of the proposed project is scheduled to begin in 2030 and be completed in 2032, a period of approximately 30 months. Phase II of the project would have the following construction process:

- 1) Phase II Cofferdam Installation – A cofferdam would be constructed across the Haynes Intake Channel at 2,150 feet from the northernmost end to isolate the portion of the channel under construction from the upstream portion, just south of the second street bridge. The cofferdam would allow the Haynes Intake Channel to be pumped dry before demolition, excavation, and filling activities begin and to retain the water on the upstream (south) side of the cofferdam during the filling of the area on the downstream (north) 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.
- 2) Phase II 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 to the north of the cofferdam and the removal of groundwater to prevent intrusion into the channel during the infilling process.
 - a. Haynes Intake Channel Surface Water Dewatering – The water within the Haynes Intake Channel north of the cofferdam (i.e., within the project site, northernmost 2,150 feet of the channel) would generally be of the same quality as the water in the channel south of the cofferdam. To avoid turbidity and/or sedimentation in the Haynes Intake Channel south of the cofferdam, a filtration system would be employed. All necessary dewatering permits for this work would be obtained prior to discharging this water into the Haynes Intake Channel.

- b. Groundwater Dewatering – 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 would be achieved with wellpoints. The dewatering may also be achieved with deep wells, which are larger diameter pipes 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 excavation of the channel. 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 channel. 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 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. If groundwater is to be discharged back into the Haynes Intake Channel south of the cofferdam, LADWP would obtain the necessary groundwater dewatering permits prior to any discharge.
- 3) Phase II Removal of Phase I Cofferdam – Once the channel is drained, the cofferdam installed as part of Phase I would be removed and the infill process of Phase II would then commence.
- 4) Phase II Infilling the Haynes Intake Channel – (see Phase I Infilling the Haynes Intake Channel)
- 5) Phase II Removal of Equipment – After the Haynes Intake Channel infilling is complete, the dewatering wells and equipment would be removed and the well holes backfilled with clean soil and/or crushed rock and would be subject to the same fill and compaction requirements as the rest of the channel. Once the project area in the Haynes Intake Channel has been filled, the cofferdam would remain to keep the filled in portion of the intake channel structurally sound and to prevent it from being compromised.

Since the Haynes Intake Channel is hydrologically connected to Alamitos Bay, the jurisdictional extent for Section 10 of the Rivers and Harbors Act was determined by the mean high water line, which corresponds with the mean high water elevation established by local NOAA tide gauge station data. The jurisdictional extent for Section 404 of the Clean Water Act (CWA) was determined by the high tide line, which corresponds with the mean higher high water elevation established by NOAA tide gauge station data and site observations. The proposed project would discharge approximately 294,300 cubic yards of fill into Haynes Intake Channel, thereby permanently impacting approximately 7.64 acres of non-wetland waters of the United States.

Proposed Mitigation—The amount and type of compensatory mitigation required would be determined by the Corps in consultation with the applicant and other agencies. The proposed mitigation may change as a result of comments received in response to this public notice, the applicant's response to those comments, and/or the need for the project to comply with the 404(b)(1) Guidelines. If permittee-responsible mitigation is proposed, the applicant shall submit to the Corps a draft habitat mitigation and monitoring plan (HMMP) prepared in accordance with the South Pacific Division's Regional Mitigation and Monitoring Guidelines of 2015.

Avoidance: Due to the project being situated within waters of the U.S. (WoUS), avoidance of impacts to WoUS is not feasible.

Minimization: The applicant has reduced impacts to WoUS by choosing to only fill the northern portion of Haynes Intake Channel and leaving the southern portion of the channel as is.

The applicant also proposes the following best management practices and mitigation measures:

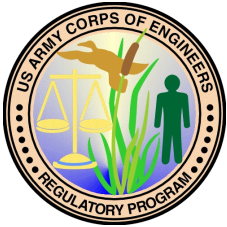
- **Equipment and Vehicle Maintenance.** LADWP would check and maintain on a daily basis any equipment or vehicles driven or operated within or adjacent to a waterway to prevent the leaking of oil or other materials that could be deleterious to fish and wildlife resources. LADWP would not perform any equipment maintenance within or near any waterway where oil or other materials deleterious to fish and wildlife resources could enter the waterway under any flow conditions. Drip pans or oil-absorbing mats would be placed under stored vehicles or equipment at the project site. Drip pans would be cleaned as necessary to maintain their effectiveness. All equipment and vehicles would be stored in the staging area fitted with appropriate perimeter controls. No vehicle or equipment washing would be done onsite. Additionally, rumble plates would be placed at the entrance of the staging/lay-down area for additional protection.
- **Oil Spill Containment.** All LADWP operators would carry a suitable oil spill containment kit and be trained in its use. Personnel would follow existing procedures on the appropriate action to take when a spill occurs. Spills of any type would be cleaned immediately. If absorbent is used for spills, it would be removed promptly and in a proper manner. On-site supervisor would be notified of any spills in case emergency response agencies or regulatory agencies need to be notified.
- **Protecting Water Quality.** LADWP would implement measures to prevent sediment or materials deleterious to fish and wildlife resources from being deposited into or placed where they could be washed into the waterway. Fiber Rolls would be placed around the staging area and around any stockpiles kept on site. Other measures can be taken if site characteristics deem their applicability. These measures may include, but are not limited to, the installation of sediment curtains, certified weed free straw bales, certified weed free straw wattles, and/or silt fences depending on what is needed and appropriate for site-specific conditions. Maintenance activities would be avoided during rain events. These additional measures would be discussed in more detail for the project's Stormwater Pollution Prevention Plan.
- **Erosion and Sediment Control.** Water trucks would be utilized for dust control in areas of earthmoving and vehicle traffic. All stockpiles would be protected from stormwater runoff by creating a perimeter using sandbags or fiber rolls. Stockpiles would be covered if there is a 50% chance of rain forecasted or windy conditions to prevent wind erosion. A perimeter of fiber rolls would be placed around the staging area. Existing vegetation would be preserved where practicable. Vehicles and equipment would use designated entry and exit points. Construction entry and exit points would be stabilized using rumble plates to prevent soil tracking onto public roads. If sediment has been tracked out from the site, sediment would be swept and removed by the end of the same workday.
- **Scheduling BMP's.** Work would not be conducted during heavy rains or storm events. Prior to finishing work before a storm event, the project site would be stabilized to reduce the potential for pollutants to leave the area (e.g., cover stockpiles, cover waste containers, secure any BMPs).
- **Flow Diversion.** As mentioned earlier, a cofferdam would be implemented in the project separating the project area from the Intake Channel that would not be impacted by the project to avoid any increased turbidity in the channel.
- **Work Limit Delineation.** Prior to commencement of the proposed project, limits of work and staging areas would be established and clearly delineated. All work and associated construction materials/equipment would be confined to these designated areas. No sediment, trash, discharge, or other materials would leave the work limits or associated staging areas and enter the surrounding terrestrial or sensitive marine environment outside the project site.
- **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.

Proposed Special Conditions

No additional Special Conditions are proposed at this time. Special conditions would be added based on public notice comments and environmental considerations.

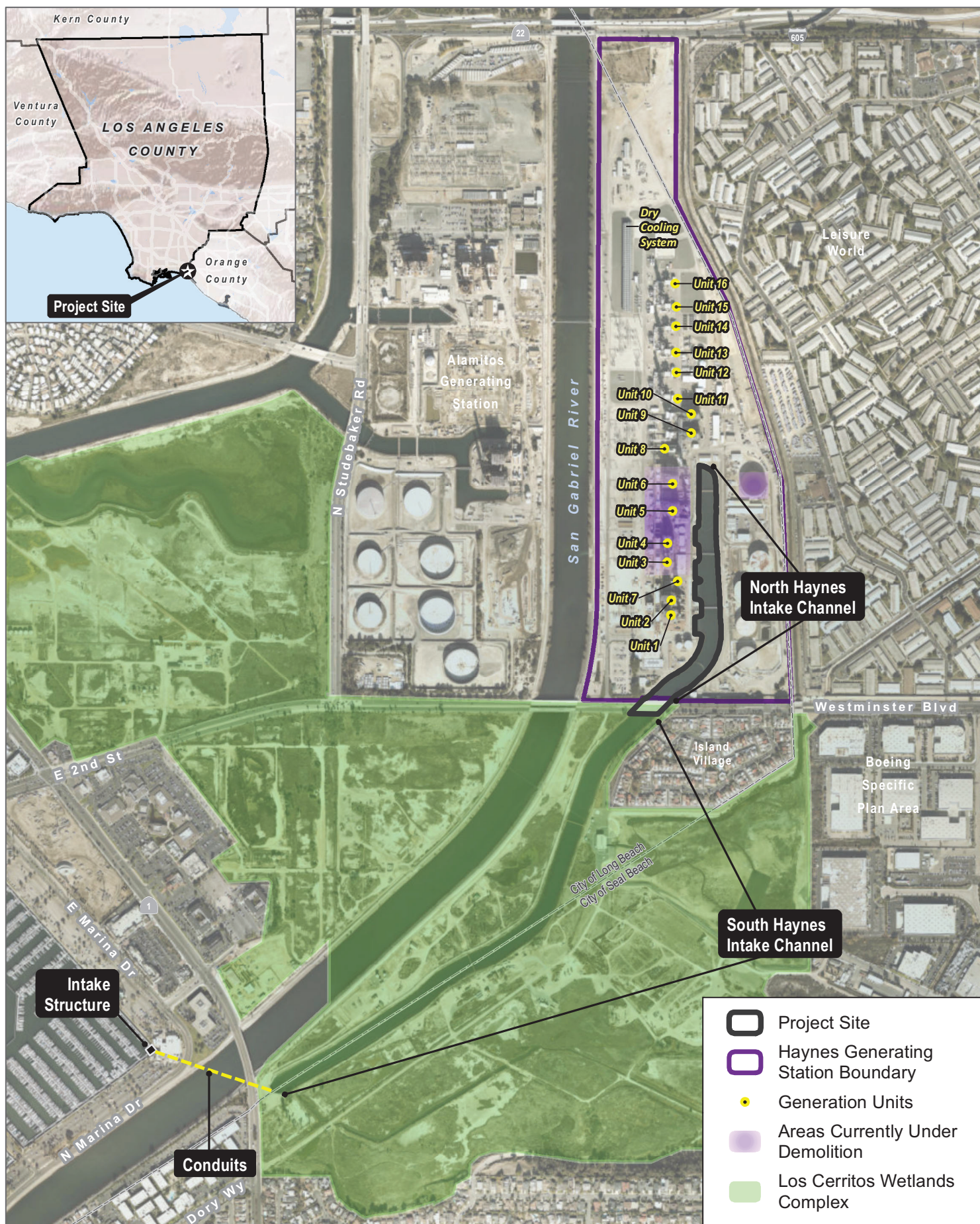
For additional information please call Vanessa Navarro of my staff at (213) 452-3420 or via e-mail at Vanessa.Navarro@usace.army.mil. This public notice is issued by the Chief, Regulatory Division.



Regulatory Program Goals:

- To provide strong protection of the nation's aquatic environment, including wetlands.
- To ensure the Corps provides the regulated public with fair and reasonable decisions.
- To enhance the efficiency of the Corps' administration of its regulatory program.

**DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, U.S. ARMY CORPS OF ENGINEERS
WWW.SPL.USACE.ARMY.MIL/MISSIONS/REGULATORY**



SOURCE: ESRI World Imagery



0 500 1,000 Feet

FIGURE 1

Project Site Location



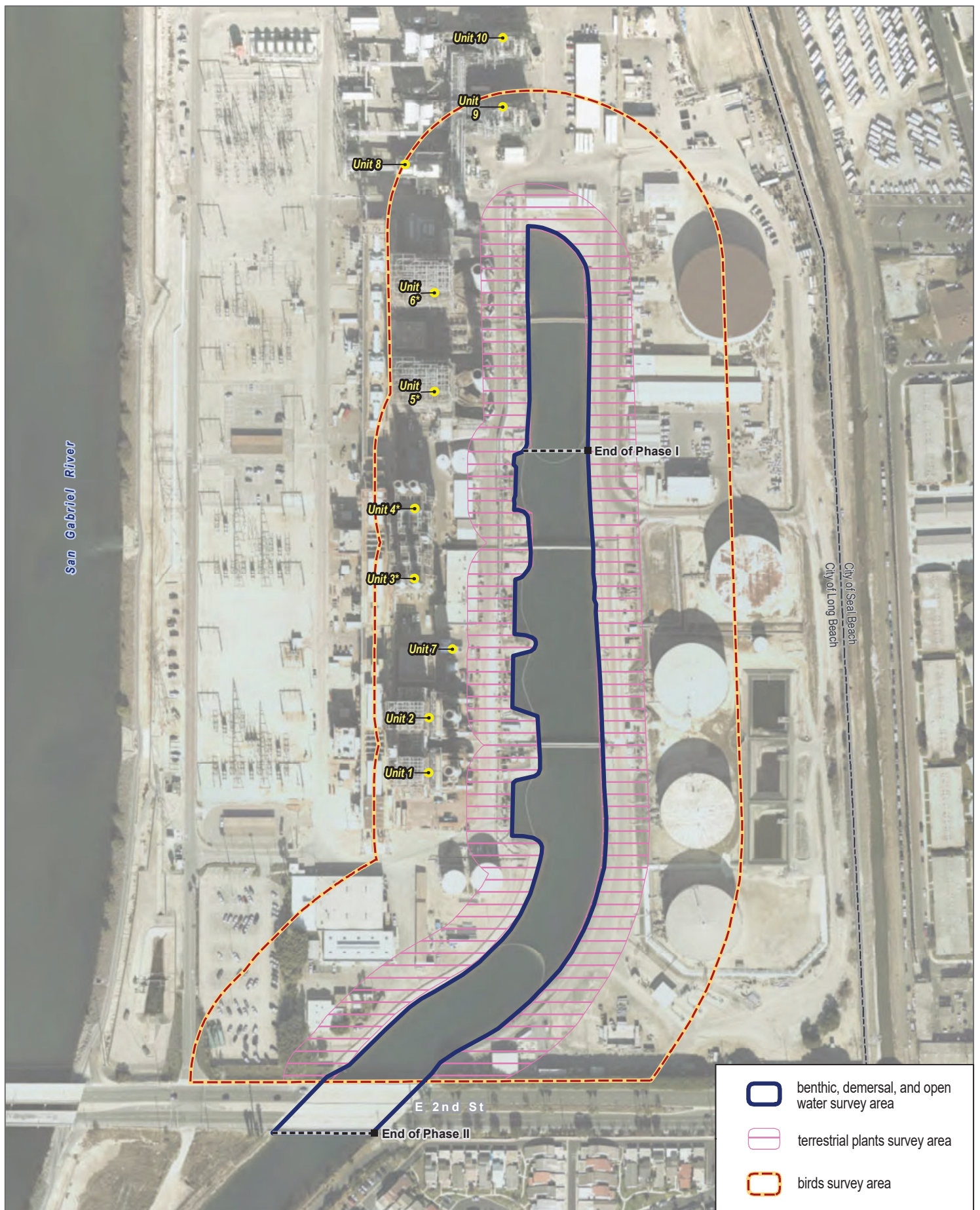
SOURCE: ESRI World Imagery



0 135 270 Feet

FIGURE 2

Project Phasing



SOURCE: ESRI World Imagery



FIGURE 3

Biological Surveys



SOURCE: ESRI World Imagery

FIGURE 4
Transect Surveys

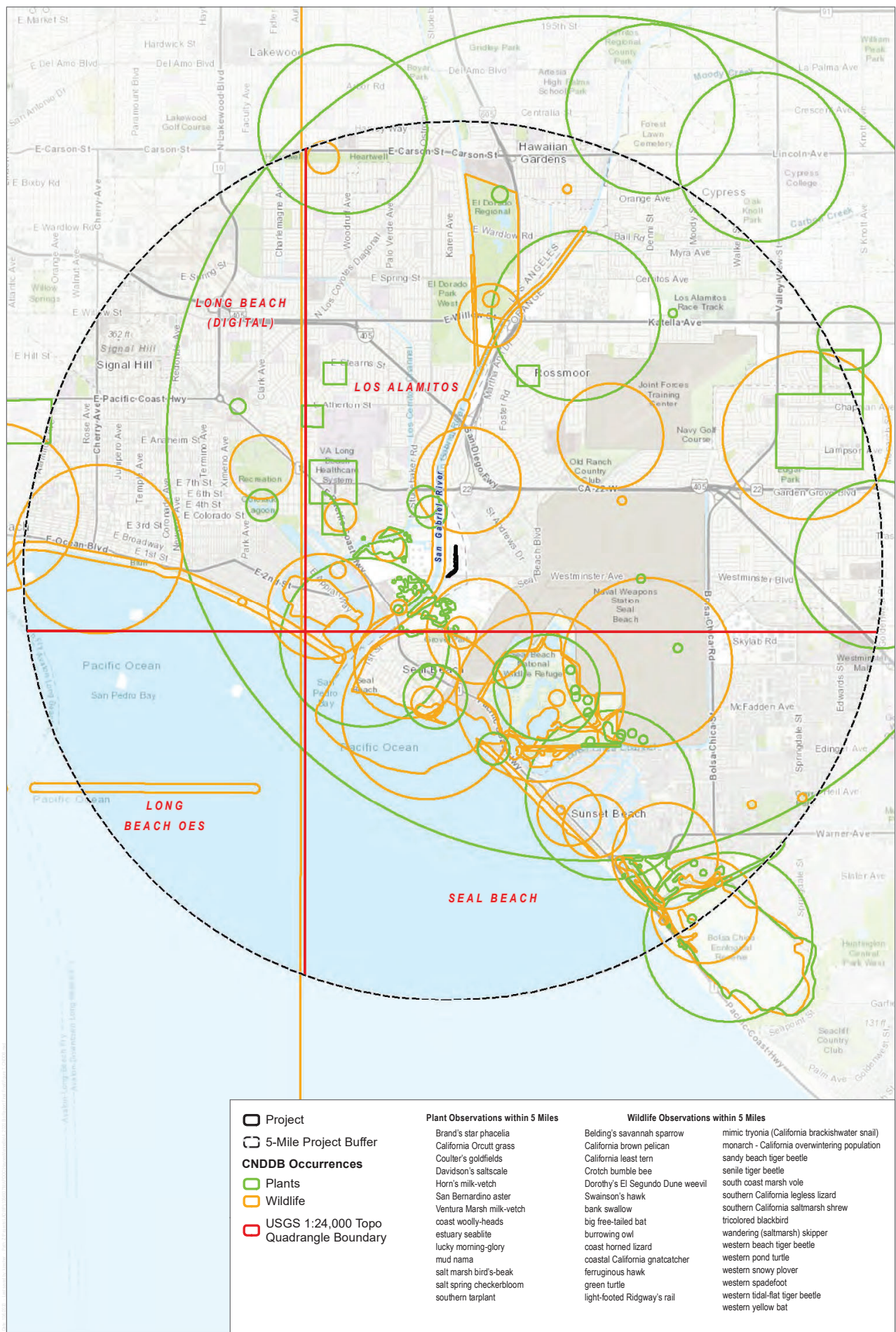


SOURCE: ESRI World Imagery

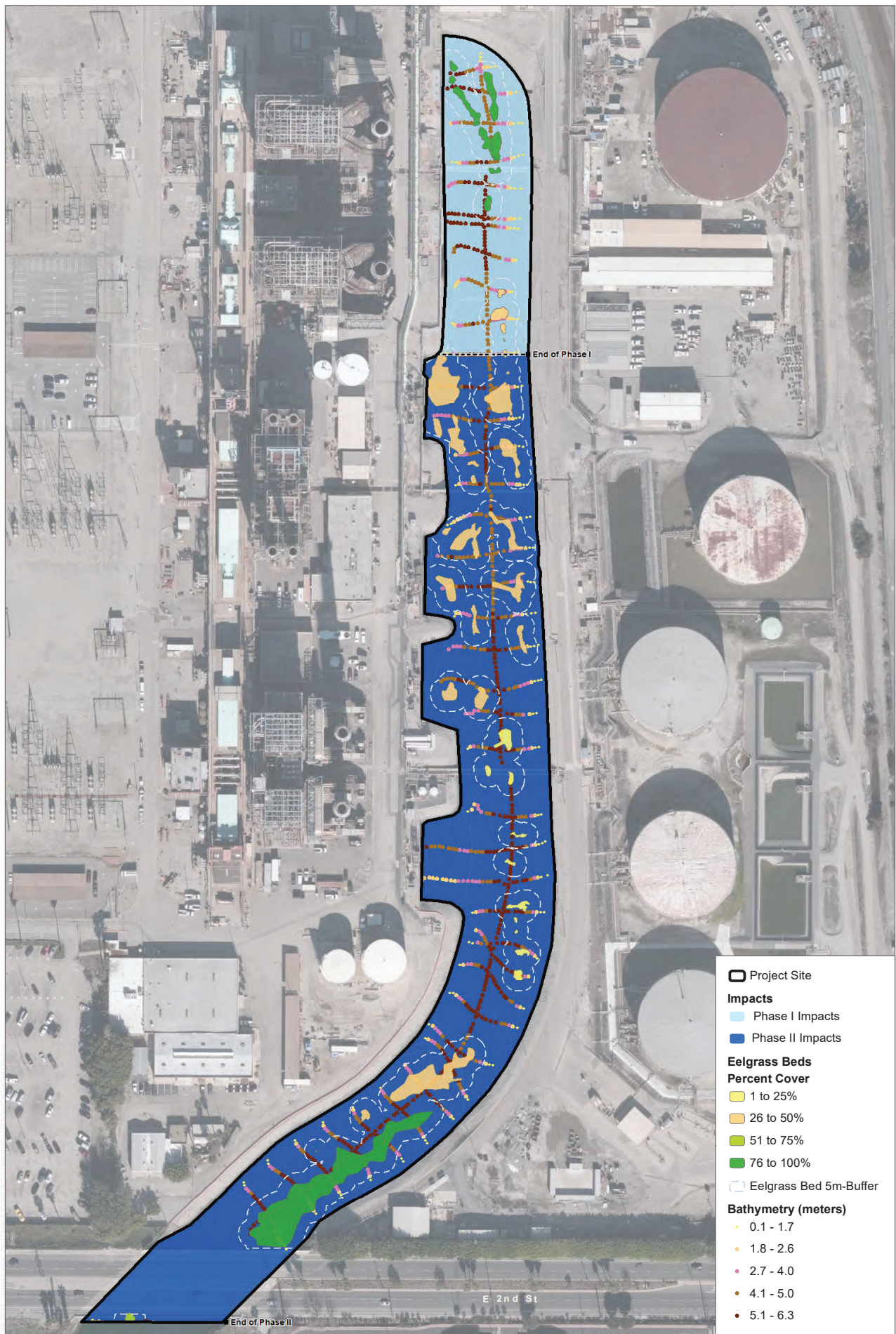
FIGURE 5
Bathymetric Survey Routes



SOURCE: ESRI World Imagery, MBC (Sonar and Bathymetry)



SOURCE: Bing Maps, CNDB



SOURCE: ESRI World Imagery, MBC (Sonar and Bathymetry)

FIGURE 8
Impacts



SOURCE: ESRI World Imagery, MBC (Sonar and Bathymetry)

FIGURE 9A

Potential Mitigation Site (Northern Portion) Eelgrass

Haynes Generating Station Intake Channel Infill Project Marine Biological Resources Report



SOURCE: ESRI World Imagery, MBC (Sonar and Bathymetry)

FIGURE 9B

Potential Mitigation Site (Southern Portion) Eelgrass

Haynes Generating Station Intake Channel Infill Project Marine Biological Resources Report