

# **PUBLIC NOTICE**

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

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#### APPLICATION FOR PERMIT Mission Bay Navigational Safety Dredging Project

Public Notice/Application No.: SPL-2017-00074-RRS
Project: Mission Bay Navigational Safety Dredging Project
Comment Period: May 4, 2017 through June 5, 2017
Project Manager: Robert Smith; (760) 602-4831; <u>Robert.R.Smith@usace.army.mil</u>

#### **Applicant**

George Freiha City of San Diego-Public Works Department (City) 525 B St., Suite 750 (619) 533-7449 San Diego, California 92101 <u>Contact</u>

Merkel & Associates (858) 560-5465 Keith Merkel San Diego, CA 92123

#### **Location**

The project location is situated at multiple locations, per the attached drawings, within the waters and public beaches of Mission Bay and Mission Bay Park, in the City of San Diego, San Diego County, CA. Dredge sites include the west and east basins of Mission Bay and northwest of the Corps Federal Project in the West Mission Bay channel and south of the Corps Rose Creek channel project. Other project areas include Sail Bay, Fiesta Bay, Crown Point, Leisure Beach, areas south of the Corps Federal project at Rose Creek and north of the Corps Mission Bay Inlet channel project, in-bay reuse areas, and an upland and in-bay staging area on disturbed lands at South Shores and within South Pacific Passage east of Sea World. The work area includes maintenance dredging and reuse of dredged sediments within approximately 76 acres of bay waters, and 1.5 acres of vacant uplands at South Shores. (Latitude 32.77899 degrees N; Longitude -117.23252 W)

#### **Activity**

The proposed project includes the dredging (clamshell or suction pipeline dredging) of up to 220,850 cubic yards (cy) of sediment from Mission Bay that would be dredged to a depth of -8.1 ft. MLLW with up to 2 ft. of allowable overdepth at up to 15 different dredge areas over 63.6 acres of navigable waters of the United States (U.S.). Table 1 in the Mission Bay Navigational Safety Dredging Biological Technical Report, dated December 2016, summarizes the dredging by individual dredge

areas and includes the area, volume of cut, design elevation of the final dredged area, and total eelgrass (*Zostera marina*) impacts of 42.93 acres. The project also proposes to reuse or fill up to 220,850 cy of dredged material at eleven reuse sites over 19.47 acres of navigable waters of the U.S. as shown in Table 2 Reuse Area Summary in the Mission Bay Navigational Safety Dredging Biological Technical Report dated December 2016 (BTR) as prepared by Merkel and Associates. For more information see attached drawings and page 3 of this notice.

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 drawings. 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 Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. Comments should be mailed to:

DEPARTMENT OF THE ARMY LOS ANGELES DISTRICT, U.S. ARMY CORPS OF ENGINEERS REGULATORY DIVISION ATTN: Robert Smith Carlsbad Field Office 5900 La Place Ct., Suite 100 Carlsbad, CA 92008

Alternatively, comments can be sent electronically to: Robert.R.Smith@usace.army.mil

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**

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

<u>Water Quality</u>- 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. Section 401 requires any applicant for an individual Section 404 permit provide proof of water quality certification to the Corps of Engineers prior to permit issuance.

<u>Coastal Zone Management</u>- 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. This project is located inside the coastal zone and preliminary review indicates it would affect coastal zone resources. After a review of the comments received on this public notice and in consultation with the California Coastal Commission, the Corps will make a final determination of whether this project affects coastal zone resources after review of the comments received on this Public Notice.

**Essential Fish Habitat**- Essential Fish Habitat (EFH), as defined by the Magnuson-Stevens Fishery Conservation and Management Act, occurs within the project area and EFH is affected by the proposed project. The Corps of Engineers preliminary determination indicates the proposed activity would adversely affect EFH. Therefore, formal consultation under Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) is required at this time with National Oceanic and Atmospheric Administration (NOAA) Fisheries or National Marine Fisheries Service (NMFS). The Corps of Engineers preliminary determination indicates the proposed activity may adversely affect EFH. Pursuant to Section 305(b)(2) of the 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 this notice and later written documentation). In order to comply with the 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 5 of this public notice.

2. Onsite inspection information: See baseline information on page 5 of this public notice.

3. Analysis of the potential adverse effects on EFH: Overall the project is designed to beneficially create large new areas of eelgrass establishment and enhancement primarily by dredging fifteen areas to a certain depth and relocating that dredged material to allow optimal filling of the reuse areas shown in the drawings and thereby achieve an optimal eelgrass establishment and enhancement depth. The project would impact up to 42.93 acres of eelgrass based on an analysis of the impacts by Rick Engineering Company plans and Merkel & Associates per the 2013 bay wide eelgrass survey. The final impact determination will be made by comparison of the pre-dredging and post-dredging eelgrass surveys in accordance with the California Eelgrass Mitigation Plan (CEMP).

The marine habitats and communities are shown in Table 5 of the BTR. For mitigation the project would dredge in a manner that allows restoration within the dredged areas and to construct suitable planting sites within the subtidal reuse sites. The project is expected to result in short-term temporary increases in local turbidity levels during dredging and material placement but these impacts are to be mitigated by incorporation of water quality monitoring and turbidity elevation limits requiring the contractor to reduce turbidity generation if elevation exceeds acceptable thresholds. Also note that the Corps has completed compliance with EPA on the suitability determination for reviewing the Sampling and Analysis Plan (SAPr) as prepared by Merkel and Associates and an analysis of grain size and bulk chemistry information per the Inland Testing Manual (ITM). Project impacts to water quality are expected to be fully mitigated as the material being dredged consists mostly of sands with some silts and the increase in turbidity levels during the short-term construction period would be controlled and monitored with mitigation measures.

4. Proposed minimization, conservation, or mitigation measures: Per the CEMP mitigation projects that are implemented concurrent with or immediately following project impacts, mitigation ratios require successful establishment at a ratio of 1.2. This mitigation ratio is outlined in the CEMP along with potential increases in mitigation for mitigation delay. Also per the CEMP there is a minimum planting ratio of 1.38:1. Using these guidelines the Corps will be requiring mitigation of at least 52 acres of eelgrass establishment for the temporal loss and risk with a minimum planting of at 60 acres. The applicant has submitted an eelgrass mitigation plan and the Corps has received initial reviews of these ratios from NMFS and will be further coordinating with NMFS during the EFH and CEMP compliance processes.

5. Conclusions regarding effects of the proposed project on EFH: The project would have substantial effects to the Coastal Pelagic and Pacific Fish Groups and the Corps has not received an EFH assessment yet but will be formally consulting with NMFS and will review and adopt any conservation recommendations as appropriate along with an approved eelgrass mitigation plan.

Therefore, it is the Corps initial determination the proposed activity may adversely affect and would have a substantial adverse impact on EFH or federally managed fisheries in California waters. This determination relative to project impacts and the need for mitigation measures is subject to review by and coordination with the NOAA Fisheries. The Corps has already received initial input from NMFS on the project impacts and will continue the EFH consultation once we receive the EFH assessment from the applicant.

<u>Cultural Resources</u>- The latest version of the National Register of Historic Places has been consulted and the project site is not listed. This review constitutes the extent of cultural resources investigations by the District Engineer, and he is otherwise unaware of the presence of such resources. The project areas have not been previously disturbed by prior dredging and disposal and grooming activities and the Corps has made an initial determination that the project is not likely to disturb any cultural resources.

Endangered Species and Marine Mammals- California least terns (*Sterna antillarum browni;* CLT or tern) do forage within the project area during summer months but are usually gone from April 15<sup>th</sup> to September 1<sup>st</sup>. The nearest least tern nesting colonies to project dredging areas are located at Mariner's Point, and the FAA Island approximately 0.25-0.5 miles from the nearest dredging areas and reuse areas generally. The CLT species makes opportunistic use of the bay shallows to forage for small fish. Species identified as protected, rare, sensitive, threatened or endangered by the United States Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), or California Department of Fish and Wildlife (CDFW) that may be expected in the project area at various times include one bird species (CLT) in the summer months, and two marine mammals that are near the Mission Bay ocean jetties and areas west of West Mission bay bridge outside of the project area, the California Sea Lion and the Harbor Seal, which are not listed. Reference is made to the Mission Bay Navigational Safety Dredging Biological Technical Report dated December 2016 for more detailed information. Since the work would occur outside of the CLT season preliminary determinations indicate the proposed activity would not affect CLT. Therefore, formal consultation under Section 7 of the Endangered Species Act (ESA) does not appear to be required at this time for CLT.

The Corps is still gathering information on if there are federally-endangered green sea turtles (*Chelonia Mydas;* GST) in Mission Bay near the project area and will initiate informal consultation for project impacts to GST with NMFS if the Corps deems there is a may affect to GST from the project. No effects to sensitive plant or animal species, including rare, threatened or endangered species are expected to occur as a result of the project implementation with the measures proposed to avoid impacts to listed species and marine mammals in the BTR and other submitted documents. Potential impacts to CLT are to be avoided by completing dredging and filling activities outside of the CLT breeding season with work being completed between October and April. Although planting of eelgrass would continue through the summer following completion of dredging, this activity does not result in any disturbance beyond that of normal bay usage and is not expected to result in impacts to CLT.

The work is expected to affect marine mammals (peni-peds, sea lions, harbor seals) or sea turtles as the project areas do receive use by marine mammals and/or sea turtles per existing data supplied by NMFS. The Corps will be requiring a marine mammal avoidance plan be prepared and submitted to the Corps and NMFS for avoidance and minimization measures for the project to avoid any impacts to marine mammals. The work would not alter any nesting or roosting sites and would not disrupt any migratory or wildlife travel routes. The project would comply with regulatory requirements of the federal Migratory Bird Treaty Act (MBTA) and California Fish and Game Codes §3503 and §3513 by avoidance of disruption of avian nesting activities due to project location and timing. The Corps welcomes comments on our initial preliminary ESA and MMPA determination.

<u>**Public Hearing**</u>- 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:** The work has been identified as an urgent safety project by the City due to potential risks of serious injury to the public. The proposed project would provide for needed maintenance dredging to remove shoals and hazards to navigation and dredged material disposal within various east and west basin areas of Mission Bay (See attached Table 1 – Dredge Area Summary in the BTR) where shoaling has occurred over a total dredge area of 63.36 acres within the 15 different dredge sites. The dredged material disposal (See Table 2 – Reuse Area Summary of the BTR) would occur over 12 different disposal sites at various deeper water disposal sites in Sail Bay and other beach nourishment reuse sites at Crown Point and Leisure Lagoon. Some of the reuse areas where dredged material is proposed for disposal would facilitate eelgrass reestablishment and rehabilitation. The proposed project intends to remove shoals that have developed to the extent that they represent a vessel and boat navigational safety hazard as determined by the San Diego Fire Department, Lifeguard Services Division and the City and both of these agencies are responsible for maintaining water safety in Mission Bay.

<u>Basic Project Purpose</u>- 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). Establishment of the basic project purpose is necessary only when the proposed activity would discharge dredged or fill material into a special aquatic site (e.g., wetlands, pool and riffle complex, mudflats, coral reefs). The shoaling areas to be dredged are based on concerns for vessel grounding in high speed or high traffic areas or where shoaling has impacted emergency response due to the draft of response vessels. Because fills are proposed within special

aquatic sites namely eelgrass (42.93 acres), identification of the basic project purpose is necessary. The basic project purpose for the proposed project is improving navigation, beach nourishment, and environmental restoration. Because the project areas must be located in and close proximity to Mission Bay waters the project is water dependent.

Overall Project Purpose- Mission Bay Park is the largest aquatic park of its kind in the country and the park has an annual attendance estimated at 15 million. It consists of over 4,600 acres in roughly equal parts land and water. Mission Bay boasts 27 miles of shoreline. Within Mission Bay the water traffic ranges from commercial vessels to a wide range of recreational vessels, from personal watercrafts to non-powered vessels of all varieties. Users of Mission Bay similarly have a wide gamut of experience, both with vessels and the waterway itself. This poses an on-going challenge for the San Diego Fire Department, Lifeguard Services Division that is charged with maintaining water safety on the Bay. 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 provide adequate maintenance dredging and dredged material disposal of waters within Mission Bay as completed in accordance with the City of San Diego Baseline chart of 1961 to provide safety and adequate navigation to the public and restore the waters of Mission Bay.

#### **Additional Project Information**

<u>Baseline information-</u> Mission Bay is a recreational bay located in San Diego, California. Historically, Mission Bay was dominated by tidal mudflats, separated from the Pacific Ocean by a sand spit that is the location of the present day community of Mission Beach. As development progressed in coastal San Diego, a long process was initiated to dredge the mudflats, re-contour the shorelines, and convert Mission Bay into a generally subtidal recreational bay. The majority of work was completed by 1963; however, maintenance dredging and shoreline stabilization operations have continued in Mission Bay to present day. Based on updated bathymetric and eelgrass surveys in 2013, fifteen primary areas within the bay currently require dredging in order to remove shoals that are causing navigation hazards. Eelgrass is present in most of these locations, and maintenance dredging would result in 42.3 acres of eelgrass impacts. Field surveys of the sites have been extensive and have included marine resource surveys and mapping, sediment characterization sampling, upland habitat assessment and jurisdictional waters determinations. Surveys have included general biological surveys to map vegetation and identify botanical and wildlife species, as well as a marine habitat survey that included eelgrass mapping.

The project area has a narrow band of sand beach that occurs around the shoreline of Mission Bay surrounded by adjacent residential development and walkways. The area is heavily utilized for recreational purposes by existing residents and visitors to Mission Bay. The lower portions of the beach are intertidal habitat providing loafing and foraging area for shorebirds and gulls; however, human disturbance along the shoreline prevents extensive use of this habitat by disturbance sensitive birds. Three marine habitats occur within the study area. A narrow, groomed supratidal and intertidal sand beach runs around the shoreline of the bay, transitioning into shallow bay waters, and dense eelgrass beds offshore. The eelgrass beds were mapped in 2013 for this effort. Results of the baseline eelgrass survey completed in spring 2013 indicate wide distribution of eelgrass within Mission Bay documenting the presence of 979 acres of eelgrass. Shallow bay habitat is described as having a depth shallow enough for light to penetrate to the seafloor. This habitat within Mission Bay is typically comprised of fine sands and contains patches of red algae (*Gracilaria* spp., *Ceramium* spp.) and green algae (*Ulva* spp.). Typical invertebrate species include burrowing bivalves (*Chione* spp., *Macoma nasuta*), the amphipod, *Grandidierella japonica*, and bay ghost shrimp (*Callianassa californiensis*). Other invertebrates found in this habitat include the invasive Japanese mussel (*Musculista senhousia*), the opisthobranch, *Navanax inermis*, and California sea hare (*Aplysia californica*). Common fish species include round stingray (*Urobatis halleri*), and gobies (Family Gobiidae).

California brown pelican (*Pelecanus occidentalis californicus*) is no longer federally-listed and double crested cormorant (*Phalacrocorax auritus*) are protected only at nesting locations and communal roosts, neither of which is present within the project area. Also the individual brown pelican and double crested cormorant occasionally forage within the nearshore waters or loaf on sand beaches adjacent to the bay. However, these species are opportunistic in their loafing and foraging activities are not dependent upon the project area for essential biological activities. Further the project areas generally lack high utility for these species which tend to aggregate on the rock breakwaters near Quivira Basin and are much less common elsewhere in the bay.

The City has an active beach maintenance program within Mission Bay Park. Maintenance activities include beach grooming and sand management, trash and debris removal, fire ring cleaning. As a result, most of the sand management activities such as scarp reduction are addressed by beach grooming and raking in the upper portion of the beach environment Shoal development as a result of bed transport and deposition of sediment, fluvial inputs, or littoral transport to shoal deposits occur at a low rate and as a result of punctuated events within the dredged waterways of Mission Bay. Over 1,000 acres of Mission Bay have experienced unaddressed net accumulation of sediment, shoaling, between the 1961 construction of Mission Bay and the most recent full bay bathymetric survey in 2013. When shoals rise to a level that they effect navigation, they are potentially subject to maintenance dredging removal.

However, where shoals threaten vessel grounding in high speed or high traffic areas, or where shoaling limits access for emergency response, these have been identified as navigational hazards by Lifeguard Services. Within Mission Bay, approximately 6 percent of the shoaling area has developed to an elevation extent and within areas of boating conflict based on speed zones, vessel traffic, and vessel draft, that they have been deemed to be hazards to navigation on Mission Bay. These hazards to navigation are the focus of the present maintenance dredging program. All of the dredging proposed under this project is maintenance to remove shoals that have developed since original bay development in 1961. Several areas of the Bay have been identified where sediment accretion has decreased water depth to a point that has resulted in a navigation hazard (Figure 2, attached).

The Dredge Area 8 on the western tip of Crown Point at Riviera Shores has been deleted from the project although originally contemplated for dredging based on the fact that activities at this site are not considered to be maintenance activities by the City. The upper shoreline has eroded back so far in this area as to generate a navigation concern at high tide due to loss of shoreline and not infill of original navigational waters. The City has initially determined that this area cannot be corrected by replacing sand alone and requires greater engineering consideration for shoreline stabilization that exceeds the purpose of this project. Coincident with proposed navigational safety dredging, multiple sediment reuse areas have been identified. These include the partial backfilling of borrow pits in Sail Bay that were excavated to generate sand for shoreline widening there in 1986 under the Sail Bay Improvements Project. The backfilled pits would allow for eelgrass restoration as partial mitigation of eelgrass impacts. Additional reuse would occur within Leisure Lagoon to raise the lagoon floor to elevations suitable to improve water flushing leading. Additional reuse would occur within Leisure Lagoon to raise the lagoon floor to elevations suitable to improve water flushing leading to better water quality and support of eelgrass habitat. Other reuse areas are located on Crown Point Shores and northeast Vacation Isle where beach sand has eroded down to feed the adjacent shoals that would be removed for navigational safety reasons. The in bay sediment reuse areas are necessary to develop sites suitable to support eelgrass habitat development as mitigation for project impacts. The shoreline reuse areas are to restore beach conditions in areas where sand loss has resulted in unstable scarps that are both dangerous to park users and which threaten existing park trail infrastructure that is close to the upper edge of the scarp on northeast Vacation Island.

Project description- The project location is situated at various multiple locations within the waters and public beaches of Mission Bay. These include dredging sites within both the west and east basins of Mission Bay, beach and in-bay reuse areas, and an upland and in-bay staging area on disturbed lands at South Shores and within South Pacific Passage east of Sea World. The work area includes maintenance dredging and reuse of dredged sediments within approximately 76 acres of bay waters and sand beach, and temporary contractor staging within approximately 2.5 acres of bay waters, and 1.5 acres of vacant uplands at South Shores. The project work is strictly maintenance dredging, replacement of sand back to origin beach areas, and reuse of dredged materials to develop compensatory eelgrass mitigation through backfill of previously dredged deep basins and planting eelgrass back into dredge areas and onto raised bay floor areas within the sediment reuse areas. Maintenance dredging extents are defined by prior bay chart conditions. Section 55.2 of the City of San Diego Charter, provides for a Mission Bay Park Improvement Fund with a purpose of funding projects that restore wetlands, wildlife habitat and other environmental assets within the Mission Bay Park Improvement Zone, and projects that preserve the beneficial uses of Mission Bay Park. The first identified priority stated in the Charter is to restore navigable waters and eliminate navigational hazards within Mission Bay Park. This project would achieve this objective. The project would not result in substantial impacts to upland habitats as the project work is restricted to un-vegetated beach areas subject to grooming by the City Parks & Recreation.

Based on the results of the sediment characterization study done by Merkel in January 2017 and updated in April 2017 and the Corps and EPA approved suitability determination per the ITM done in April 2017, dredged sediments would be placed within multiple disposal sites either located in Sail Bay (the west basin of Mission Bay) or at select receiver beaches. A series of disposal/reuse sites are deep borrow pits that were originally excavated for sandy material that was excavated and placed on the beaches of the bay as part of the Mission Bay Shoreline Stabilization Project nearly two decades ago. The borrow pits range in depth from -12 ft. to - 20 feet MLLW and are currently too deep to support eelgrass habitat. However, backfilling these pits with sediment dredged from the proposed maintenance dredging sites would raise bottom elevations and provide opportunity for subsequent eelgrass restoration. Dredge material from predominantly silty areas would be discharged and covered with suitable sand within the four disposal areas in Sail Bay. It is anticipated that up to approximately 220,868 cy of material (includes 2 ft. overdredge allowance) would be dredged from Sites 1 through 7, and 12, which would be placed in the Sail Bay reuse areas. Up to 9,615 cy of material would be dredged from Sites 13 and 14 (includes 2 ft. overdredge), and placed into the adjacent Leisure Lagoon to bring water depths up to an elevation capable of supporting eelgrass, and up to approximately 83,223 cy of material could be used for beach nourishment or in-bay reuse. The Sail Bay borrow pits along with the Leisure Lagoon site would create approximately 12.8 acres of habitat at approximately -8 feet MLLW depth. Table 2 of the BTR summarizes approximate volumes, dredge locations, and proposed disposal.

<u>Proposed Mitigation</u>– 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. In consideration of the above, the proposed mitigation sequence (avoidance/minimization/compensation), as applied to the proposed project is summarized below:

Avoidance: Since the project is a maintenance dredging and restoration project for the 15 dredging sites and reuse sites which would be maintained to a baseline depth approved in the City's original baseline dredging of 1961 the project would restore areas so that eelgrass can again function. The maintenance dredging, replacement of sand back to origin beach areas, and reuse of dredged materials to develop compensatory eelgrass mitigation through backfill of previously dredged deep basins would restore up to 60 acres of Mission Bay. The planting of eelgrass back into dredge areas and onto raised bay floor areas within the sediment reuse areas would enhance environmental restoration of Mission Bay. No wetlands impacts are expected.

Minimization: The project is expected to result in short-term temporary increases in local turbidity levels during dredging and material placement but these impacts are to be mitigated by incorporation of water quality monitoring and turbidity elevation limits requiring the contractor to reduce turbidity generation if elevation exceeds acceptable thresholds. Also note that the Corps has completed compliance with EPA on the suitability determination for reviewing the Sampling and Analysis Plan (SAPr) as prepared by Merkel and Associates and an analysis of grain size and bulk chemistry information per the Inland Testing Manual. With the material being dredged being mostly sands with some silts and the short-term construction period increase in turbidity levels during the construction period being controlled and monitored with mitigation measures, project impacts to water quality are expected to be fully mitigated.

Compensation: To accomplish required eelgrass mitigation, the project has been designed to dredge in a manner that sustains restoration within the dredged areas and to construct suitable planting sites within the subtidal reuse sites. Upon completion of individual sites, planting of the sites with eelgrass would be accomplished commencing upon the beginning of the high growth season in March of future years. The project would seek to establish and restore up to 60 acres of eelgrass for up to 42.3 acres of impacts in accordance with CEMP.

	AREA			FILL	1-FT	2-FT	EELGRASS
LOCATION				VOLUME	OVERDREDGE	OVERDREDGE	IMPACT
	(ACKES)		(СТ)	(CY)	(CY)	(CY)	(ACRES)
DREDGE AREA							
DREDGE 1A	15.87	-10.5' NGVD /-8.1' MLLW	22,690	-	25,600	-	15.87
DREDGE 1B	0.52	-10.5' NGVD /-8.1' MLLW	590	-	840	-	0.52
DREDGE 1C	0.63	-10.5' NGVD /-8.1' MLLW	720	-	1,020	-	0.63
DREDGE 1D	0.41	-10.5' NGVD /-8.1' MLLW	500	-	660	-	0.41
DREDGE 2	0.41	-10.5' NGVD /-8.1' MLLW	470	-	660	-	0.41
DREDGE 3	2.84	-10.5' NGVD /-8.1' MLLW	5,450	-	4,580	-	2.57
DREDGE 4	0.8	-10.5' NGVD /-8.1' MLLW	610	-	1,290	-	0.64
DREDGE 5A	13.5	-10.5' NGVD /-8.1' MLLW	19,850	-	21,780	-	13.30
DREDGE 5B	NO WORK	NO WORK	NO WORK	-	NO WORK	NO WORK	NO WORK
DREDGE 6	0.67	-10.5' NGVD /-8.1' MLLW	850	-	1,080	-	0.42
DREDGE 7	1.3	-10.5' NGVD /-8.1' MLLW	3,380	-	2,100	-	1.30
DREDGE 8	NO WORK	NO WORK	NO WORK	-	NO WORK	NO WORK	NO WORK
DREDGE 9	1.94	-10	4,770	-	-	-	0.97
DREDGE 10	3.61	-10.5' NGVD /-8.1' MLLW	15,300	8,780	-	-	2.01
DREDGE 11	1.67	-7.0' NGVD /-4.6' MLLW	5,900	5,900	-	-	0.64
DREDGE 12A	11.44	-10.5' NGVD /-8.1' MLLW	22,890	-	-	36,930	0.99
DREDGE 12B	0.13	-10.5' NGVD /-8.1' MLLW	230	-	-	410	0.00
DREDGE 12C	0.11	-10.5' NGVD /-8.1' MLLW	190	-	-	350	0.06
DREDGE 12D	0.07	-10.5' NGVD /-8.1' MLLW	120	-	-	210	0.04
DREDGE 12 E	0.21	-10.5' NGVD /-8.1' MLLW	380	-	-	680	0.04
DREDGE 12F	0.08	-10.5' NGVD /-8.1' MLLW	140	-	-	260	0.00
DREDGE 13 & 14	3.78	-5.0' NGVD /-2.6' MLLW	8,320	8,320	-	-	0.78
DREDGE 15	3.37	-7.0' NGVD /-4.6' MLLW	9,050	9,050	-	-	1.31
TOTAL DREDGE	63.36		122,400	32,050	59,610	38,840	42.93

 Table 1. Dredge Area Summary.

## Table 2. Reuse Area Summary.

BENEFICIAL RESUE EELGRASS MITIGATION SITE MITIGATION SITE	AREA (ACRES)	FILL ELEV. (FT NGVD29/MLLW)	FILL VOL (CY)	
RESUSE SITES				
RESUSE WEST 3 **	2.51	-10.5' NGVD /-8.1' MLLW	41,270	
RESUSE WEST 4 **	2.69	-10.5' NGVD /-8.1' MLLW	50,060	
RESUSE WEST 6 **	2.23	-10.5' NGVD /-8.1' MLLW	48,690	
RESUSE WEST 7 **	2.50	-10.5' NGVD /-8.1' MLLW	48,780	
CROWN POINT REUSE 2	3.35	BEACH	9,050	
REUSE AREA 10	3.75	BEACH	8,780	
LEISURE LAGOON	2.45	-7.5' NGVD /-5.1' MLLW	8,320	
REUSE AREA 11	2.06	BEACH	5,900	
TOTAL REUSE	19.47		220,850	

\*\*FILL VOLUME INCLUDES DREDGING CUT VOLUME AND 1-FT AND 2-FT OVER DREDGING VOLUMES

	AREA	EELGRASS	EELGRASS	PREDICTED	PREDICTED EELGRASS
SITE		IMPACT TRANSPLANT AREA S		SUCCESS RATE	RESTORED
	(ACRES)	(ACRES)	(ACRES)	(%)	(ACRES)
DREDGE SITES					
DREDGE 1A	15.87	15.87	15.87	95%	15.08
DREDGE 1B	0.52	0.52	0.52	95%	0.49
DREDGE 1C	0.63	0.63	0.63	95%	0.60
DREDGE 1D	0.41	0.41	0.41	95%	0.39
DREDGE 2	0.41	0.41	0.41	95%	0.39
DREDGE 3	2.84	2.57	2.84	95%	2.70
DREDGE 4	0.8	0.64	0.80	95%	0.76
DREDGE 5A	13.5	13.30	13.50	95%	12.83
DREDGE 6	0.67	0.42	0.67	95%	0.64
DREDGE 7	1.3	1.30	1.30	95%	1.24
DREDGE 9	1.94	0.97	1.94	52%	1.01
DREDGE 10	3.61	2.01	3.61	52%	1.88
DREDGE 11	1.67	0.64	1.67	52%	0.87
DREDGE 12A	11.44	0.99	0.00	NA	0
DREDGE 12B	0.13	0.00	0.00	NA	0
DREDGE 12C	0.11	0.06	0.00	NA	0
DREDGE 12D	0.07	0.04	0.00	NA	0
DREDGE 12 E	0.21	0.04	0.00	NA	0
DREDGE 12F	0.08	0.00	0.00	NA	0
DREDGE 13 & 14	3.78	0.78	3.78	71%	2.68
DREDGE 15	3.37	1.31	3.37	70%	2.36
TOTAL DREDGE	63.36	42.93	51.32		43.90
RESUSE SITES					
RESUSE WEST 3	2.51	-	2.51	95%	2.38
RESUSE WEST 4	2.69	-	2.69	95%	2.55
RESUSE WEST 6	2.23	-	2.23	95%	2.12
RESUSE WEST 7	2.50	-	2.50	2.50 95%	
LEISURE LAGOON	2.45	-	2.45	95%	1.74
TOTAL REUSE	12.37	-	12.37		11.17
PROJECT TOTAL	75.73	43	63.69		55.07

Table 3. Total dredge area, eelgrass impact and predicted eelgrass from restoration actions

#### **Proposed Special Conditions:**

None at this time are proposed.

For additional information please call Robert Smith of my staff at (760) 602-4831 or via e-mail at Robert.R.Smith@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

Carlsbad Field Office 5900 La Place Ct., Suite 100 Carlsbad, CA 92008 <u>WWW.SPL.USACE.ARMY.MIL/MISSIONS/REGULATORY</u>



SITE	AREA (ACRES)	DREDGE ELEV (FT)	CUT VOLUME (CY)	FILL VOLUME (CY)	1-FT NON-PAID ALLOWABLE OVERDREDGE (CY)	2-FT PAID ALLOWABLE OVERDREDGE (CY)	EELGRASS IMPACT (ACRES)	EELGRASS TRANSPLANT AREA (ACRES)-NIC	PREDICTED EELGRASS RESTORED (ACRES)-NIC	
DREDGE SITES								1	1	
DREDGE 1A	15.87	-10.50	22,690	-	25,600	-	15.87	15.87	15.08	
DREDGE 1B	0.52	-10.50	590	-	840	-	0.52	0.52	0.49	
DREDGE 1C	0.63	-10.50	720	-	1,020	-	0.63	0.63	0.60	
DREDGE 1D	0.41	-10.50	500	-	660	-	0.41	0.41	0.39	
DREDGE 2	0.41	-10.50	470	-	660	-	0.41	0.41	0.39	
DREDGE 3	2.84	-10.50	5,450	-	4,580	-	2.57	2.84	2.70	
DREDGE 4	0.80	-10.50	610	-	1,290	-	0.64	0.80	0.76	
DREDGE 5A	13.50	-10.50	19,850	-	21,780	-	13.30	13.50	12.83	
DREDGE 5B	NO WORK	-10.50	NO WORK	-	NO WORK	NO WORK	NO WORK	NO WORK	NO WORK	
DREDGE 6	0.67	-10.50	850	-	1,080	-	0.42	0.67	0.64	
DREDGE 7	1.30	-10.50	3,380	-	2,100	-	1.30	1.30	1.24	
DREDGE 8	NO WORK	-10.50	NO WORK	-	NO WORK	NO WORK	NO WORK	NO WORK	NO WORK	
DREDGE 9	1.94	-10.00	4,770	-	-	-	0.97	1.94	1.01	
DREDGE 10	3.61	-10 TO -11	15,300	8,780	-	-	2.01	3.61	1.88	
DREDGE 11	1.67	-7.00	5,900	5,900	-	-	0.64	1.67	0.87	
DREDGE 12A	11.44	-10.50	22,890	-	-	36,930	0.99	-	-	
DREDGE 12B	0.13	-10.50	230	-	-	410	-	-	-	
DREDGE 12C	0.11	-10.50	190	-	-	350	0.06	-	-	
DREDGE 12D	0.07	-10.50	120	-	-	210	0.04	-	-	
DREDGE 12 E	0.21	-10.50	380	-	-	680	0.04	-	-	
DREDGE 12F	0.08	-10.50	140	-	-	260	0.00	-	-	
DREDGE 13 & 14	3.78	-5.00	8,320	8,320	-	-	0.78	3.78	2.68	
DREDGE 15	3.37	-2 TO -7	9 <i>,</i> 050	9,050	-	-	1.31	3.37	2.36	
TOTAL DREDGE	63.36		122,400	32,050	59,610	38,840	42.93	51.32	43.90	

BENEFICIAL RESUE EELGRASS MITIGATION SITE MITIGATION SITE	AREA FILL VOL (ACRES) (CY)		EELGRASS TRANSPLANT AREA (ACRES)-NIC	PREDICTED EELGRASS RESTORED (ACRES) - NIC			
RESUSE SITES							
RESUSE WEST 1	NO WORK	NO WORK	NO WORK	NO WORK			
RESUSE WEST 2	NO WORK	NO WORK	NO WORK	NO WORK			
RESUSE WEST 3 **	5.59	64,940	2.51	2.38			
RESUSE WEST 4	NO WORK	NO WORK	NO WORK	NO WORK			
RESUSE WEST 5	NO WORK	NO WORK	NO WORK	NO WORK			
RESUSE WEST 6 **	0.89	8,930	2.23	2.12			
RESUSE WEST 7 **	8.66	114,930	2.50	2.37			
CROWN POINT REUSE 1	NO WORK	NO WORK	NOWORK	NO WORK			
CROWN POINT REUSE 2	3.35	9,050	-	-			
REUSE AREA 10	3.75	8,780	-	-			
LEISURE LAGOON	2.45	8,320	2.45	1.74			
REUSE AREA 11	2.06	5,900		-			
TOTAL REUSE         26.75         220,850         9.69         8.61							
**FILL VOLUME INCLUDES DREDGING CUT VOLUME AND 1-FT AND 2-FT OVER DREDGING							

VOLUMES



SCALE 1"=800'

CONTRACTOR WATER STAGING AREAS

[-----] |\_\_\_\_\_

DREDGE AREAS	
REUSE AREAS	
	CITY
PROFESS/ONAL	APPROVED: FOR CITY EN
	PRINT NAME

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KEY MAP			MISSION BAY NAVIGATIONAL SAFETY DREDGING								
CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 2 OF 13 SHEETS  WATER 0-000C SEWER 0-00C SEWER 0-0C SEWER 0-0C				KEY MAP							
APPROVED: FOR CITY ENGINEER DATE PRINT NAME RCE# DESCRIPTION BY APPROVED DATE FILMED ORIGINAL XX/XX SCORDINATE CCS27 COORDINATE CCS27 COORDINATE CCS23 COORDINATE CONTRACTOR DATE STARTED 2007201 000			CITY OF PUBL SHEL	CITY OF SAN DIEGO, CALIFORNIA PUBLIC WORKS DEPARTMENT SHEET 2 OF 13 SHEETS							
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FIGURE 7





К 619-291-0707 INGINEERING COMPANY (FAX) 619-291-4165

К

FIGURE 9