PUBLIC NOTICE

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT

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APPLICATION FOR PERMIT
Lower Santa Ana River Sand Management Project

Public Notice/Application No.: SPL-2007-00765-GS
Project: Lower Santa Ana River Sand Management Project
Comment Period: January 20, 2016 through February 19, 2016
Project Manager: Gerardo Salas (213-452-3417); Gerardo.Salas@usace.army.mil

Applicants
Vincent Gin
Orange County Public Works
300 North Flower Street
Santa Ana, California 92702

Contact
James Volz
Orange County Public Works
300 North Flower Street
Santa Ana, California 92702

Location

The project site is located in the lower Santa Ana River in the earthen-bottom reaches (Reach 1 and a portion of Reach 2) extending from the Santa Ana River mouth (Pacific Ocean) to upstream of Adams Avenue (Figure 1). Cities affected by the proposed project are Huntington Beach, Newport Beach, and Costa Mesa. More specifically, the segment to be dredged extends approximately 3.5 miles from the River mouth upstream to Station 194+00 (upstream of Adams Avenue), in Orange County, California (at Lat/Long: 33.650586, -117.951152).

Activity

The applicant proposes to temporarily discharge fill material into 116.94 acres of non-wetland waters of the United States for the maintenance of approximately 3.5 miles of the lower Santa Ana River, from the ocean outlet to just upstream of Adams Avenue. Annual or routine maintenance activities includes maintenance access, vegetation control/removal, inspections, removal of accumulated sediment to return the river to design grade, and excavation of a maximum 40-ft wide pilot channel in order to move water from upstream to downstream between the larger sediment removal operations. Material that is suitable would be used for beach nourishment. The selected receiver site for beach nourishment is the nearshore zone at West Newport Beach/Newport Groin Fields located in Newport Beach. Other potential beach receiver sites include East Beach and Surfside-Sunset in Seal Beach, five inland beaches in Huntington Harbour, various beaches in Newport Harbor and North Beach and Linda Lane Beach in San Clemente. Only native wetland habitat (i.e., cattails and sedges) would be allowed to grow, with annual mowing. Woody vegetation (including willows, mulefat and other large shrubs and trees) would be removed annually due to constraints on flood capacity and water conveyance. Non-native invasive vegetation (i.e., Arundo and castor bean) would be removed or controlled with the use of herbicides (following established federal and state guidelines, and avoiding impacts to native species). Upon reaching the upper design grade

sediment threshold, sediment would be removed from the earthen portions of Reaches 1 and 2. For more information, see page 6 of this public 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 103 of the Marine Protection, Research and Sanctuaries Act, Section 10 of the Rivers and Harbors Act, and Section 404 of Clean Water Act. Comments should be mailed to:

Department of the Army
U.S Army Corps of Engineers, Los Angeles District
Regulatory Division
Attn: Gerardo Salas
915 Wilshire Boulevard, Suite 930
Los Angeles, California 90017

Alternatively, comments can be sent electronically to: Gerardo.Salas@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 waters 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 U.S. Environmental Protection Agency (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 (EIS) 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 that an EIS 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. Certification was issued by the Regional Water Quality Control Board (No. 302015-01) on January 4, 2016.

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 (CCC) that 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. The applicant submitted an application for a Coastal Development Permit on February 5, 2015.

Essential Fish Habitat (EFH)- The Corps has preliminarily determined 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: The proposed project would maintain approximately 3.5 miles of the lower Santa Ana River (SAR) from the ocean outlet to just upstream of Adams Avenue. Annual or routine maintenance activities includes maintenance access, vegetation control/removal, inspections, removal of accumulated sediment to return the river to design grade, and excavation of a maximum 40-ft wide pilot channel in order to move water from upstream to downstream between the larger sediment removal operations. Material that is suitable removed for the pilot channel may be used for beach nourishment or other uses. The selected receiver site for beach nourishment is the nearshore zone at West Newport Beach/Newport Groin Fields located in Newport Beach. Other potential beach receiver sites include East Beach and Surfside-Sunset in Seal Beach, five inland beaches in Huntington Harbour, various beaches in Newport Harbor and North Beach and Linda Lane Beach in San Clemente. Only native wetland habitat (i.e., cattails and sedges) would be allowed to grow, with annual mowing. Woody vegetation (including willows, mulefat and other large shrubs and trees) would be removed annually due to constraints on flood capacity and water conveyance. Non-native invasive vegetation (i.e., Arundo and castor bean) would be removed or controlled with the use of herbicides (following established federal and state guidelines, and avoiding impacts to native species). Upon reaching the upper design grade sediment threshold, sediment would be removed from the earthen portions of Reaches 1 and 2.

2. On site inspection information: The proposed project occurs in essential fish habitat (EFH) for various federally managed fish species within the Pacific Coast Groundfish and Coastal Pelagics Species Fishery Management Plans (FMPs). In addition, the project occurs within the vicinity of estuarine and eelgrass habitats, which are considered habitat areas of particular concern (HAPC) for various federally managed fish species within the Pacific Coast Groundfish FMP. HAPC are described in the regulations as subsets of EFH which are rare, particularly susceptible to human-induced degradation, especially ecologically important, or located in an environmentally stressed area.

Eelgrass species has been observed in SAR just upstream of Pacific Coast Highway, however, eelgrass in rivers, unlike estuaries and harbors, are transitory in nature because of the dynamic effect the river has on vegetation during storm events, and therefore eelgrass is unlikely to be persistent in the SAR channel. Dredging and excavation may temporarily remove benthic infauna from the project footprint. Infauna communities are expected to rapidly re-colonize following dredging.

It is unforeseeable to what extent eelgrass, if any, would be in existence after the 2015-2016 winter season and prior to start of the project activities in September 2016. In any event, the applicant would conduct a pre-construction survey during the eelgrass growing season (March-October) to document the extent of eelgrass in the area which have the potential to be impacted by the proposed project. The survey would be done in accordance with the California Eelgrass Mitigation Policy (CEMP). In the event the pre-construction survey documents eelgrass within the project footprint, no work shall be conducted until such time as the applicant can make a determination to either avoid impacting the eelgrass or notify the NOAA Fisheries that impacts are unavoidable and that mitigation is not required due to the natural transitory nature of eelgrass in the river.

In addition to monitoring for eelgrass, a pre-construction survey for Caulerpa in the project area would be conducted in accordance with the most recent NOAA Fisheries Caulerpa Control Protocol no earlier than 90 days and not later than 30 days prior to planned maintenance activities. The results of that survey would be transmitted to National Marine Fisheries Service (NMFS) and the California Department of Fish and Wildlife at least 15 days prior to initiation of proposed work. In the event that Caulerpa is detected within the project area, no work shall be conducted until such time as the

infestation has been isolated, treated, and the risk of spread is eliminated. If convenient, this survey could be done simultaneously with the eelgrass pre-construction survey.

3. Analysis of the potential adverse effects on EFH: Because of the transitory nature of eelgrass in an active flood risk management facility that is subjected to occasional sustained large releases of water, the adherence to established special conditions, and the requirement to separately mitigate for any direct or indirect impacts to eelgrass, project activities would have adverse but temporary and less than substantial impacts to EFH and species managed under the FMPs. For these reasons, the proposed project would result in no substantial adverse effects to EFH or federally managed fisheries in California.

4. Proposed minimization, conservation, or mitigation measures: Impacts to non-transitory eelgrass would be mitigated pursuant to the provisions of the CEMP.

5. Conclusions regarding effects of the proposed project on EFH: Based on the project description and EFH assessment provided by the applicant, the proposed project would result in the loss of eelgrass if eelgrass were present after the 2015-2016 winter season and prior to start of the proposed project in September 2016.

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 has been reviewed and this 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. Furthermore, none would be expected to occur, as the applicant would be dredging accumulated sediment.

Endangered Species- A “Vegetation Survey of the Lower Santa Ana River for the Lower Santa Ana River Maintenance Dredging Project, Orange County, California (April 2015)” was prepared by Chambers Group, Inc. The results indicated the federally endangered California least tern (*Sterna antillarum browni*) forages in the SAR during their breeding season between April and August. Least terns are visual feeders on small fish and turbidity can interfere with foraging. Work would be avoided during the least tern breeding season to the maximum extent practicable. If work must occur during the breeding season, methods would be implemented to control turbidity during dredging.

Furthermore, the federally threatened Western snowy plovers (*Charadrius alexandrinus nivosus*) may roost or forage on the sand bars in the Lower Santa Ana River, particularly if the sand bars are unvegetated. Dredging has the potential to disturb or even injure snowy plovers. The County of Orange would employ a biological monitor to watch for snowy plovers during maintenance activities at the ocean outlet. If the monitor observes snowy plovers in the work area, activities are halted until the plovers leave the area. This procedure avoids adverse impacts to snowy plovers during maintenance.

A currently valid Biological Opinion for the Santa Ana River Mainstem Project Lower Santa Ana River Reach 2 Channel Excavation to Design Grade (FWS-OR-1304.8), Orange County, California, was issued December 22, 2003.

Preliminary determinations indicate the proposed activity would not affect federally-listed endangered or threatened species, or their critical habitat. Therefore, re-initiation of formal consultation under Section 7 of the Endangered Species Act does not appear to be required at this time.

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). 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). There are no special aquatic sites within the proposed project area. Therefore, establishment of a basic project purpose is not necessary.

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 channel maintenance to allow for adequate flood risk management for Orange County.

Additional Project Information

Baseline information- The proposed operations and maintenance is to occur within a federally constructed flood risk management facility under the auspices of the local sponsor (Orange County Public Works). The Corps of Engineers prepared and approved the “Operation, Maintenance, Repair, Replacement, and Rehabilitation Manual for the Lower Santa Ana River Channel” dated December 1996. This manual requires the local sponsor to apply for a Corps permit to conduct operations and maintenance activities within the federally constructed channel.

The lower SAR project footprint is a perennially flowing channel which discharges directly to the Pacific Ocean. The proposed project site is currently largely unvegetated as a result of the Corps’ maintenance project in 2004-2005 and OC Public Works ongoing vegetation removal activities with the most recent vegetation removal activity occurring in late 2012.

Project description- The proposed project would maintain approximately 3.5 miles of the lower SAR from the ocean outlet to just upstream of Adams Avenue. Maintenance includes vegetation control/removal and removal of sediment to return the river to design grade. Material that is suitable would be used for beach nourishment. Annual or routine maintenance includes vegetation control/removal and excavation of a maximum 40-ft wide pilot channel in order to move water from upstream to downstream between the larger sediment removal operations.

All vegetation would be allowed to grow between annual maintenance events. Non-native vegetation (i.e., arundo and castor bean) would be eliminated annually with herbicide or removed with equipment. For native vegetation, annual maintenance may also include mowing or removal with herbicide or equipment. Where and when impacts to nesting birds can be avoided, woody vegetation (including willows, mulefat and other large shrubs and trees) would be removed annually due to constraints on storm water carrying capacity.

Sediment removal would require the use of dredges, barges, excavators, bulldozers, scrapers, front end loaders, dump trucks, mowers, chippers, screening plants, pick-up trucks, and other equipment. Beach compatible material would be deposited on a beach or within the near-shore littoral zone: at Newport Beach either in a designated near-shore zone, adjacent to the river mouth, between depths of -10 and -30 feet MLLW or directly on the beach within the Newport Beach groin field; at Huntington Beach bluffs either in the near-shore or onshore; at Sunset/Surfside Colony; at Seal Beach East Beach onshore; or at a combination of these sites. Material unsuitable for beach nourishment would be placed in upland area, outside of waters of the United States.

An upper grade limit for sediment accumulation was established for this channel by the Corps, and is referenced in the Corps' Operations and Maintenance (O&M) Manual. Once sediment deposition exceeds this limit, the sediment must be removed to return the river to its design invert elevation in order to provide the established level of flood risk management. The anticipated maintenance frequency for the lower reach is estimated in the Corps' O&M Manual to occur approximately once every 18 years, based on a long-term average. The actual frequency may vary, depending on storm events and other factors that affect deposition and scour. It has only been ten years since the lower SAR was last dredged; however, the last dredging event by the Corps did not fully return the channel to its design invert elevations. In 2013, sediment deposition exceeded the allowable limits and the Corps has required that the County of Orange remove the excess sediment within two years.

Based on a May 2013 bathymetric survey of the SAR, the estimated maximum potential volume of export for the currently proposed dredge cycle is 1.1 million cubic yards (CY). This volume includes a two-foot over-dredge allowance between Stations 8+00 to 139+00 and a 20% contingency for ongoing sedimentation and incidental sloughing of dredge cut side slopes during the sediment removal operation. The proposed earthwork volumes per station and with and without the over-dredge allowances are provided below. Fill is proposed in some areas to backfill existing areas that are lower than the design grade elevation.

	Cut (CY)	Fill (CY)	Net (CY)	Rounded Totals (CY)
Volumes to Design Invert Elevation				
Station 8+00 (Downstream Project Limit / Ocean Outlet) to 18+00 (PCH Bridge)	92,833	0	92,833	95,000
Station 18+00 to 92+00 (Victoria Street Bridge)	340,761	286	340,475	340,000
Station 92+00 to 139+40 (Bicycle Bridge)	51,440	12,716	38,724	40,000
Station 139+40 to 173+00 (Adams Avenue Bridge)	43,857	17,614	25,218	25,000
Station 173+00 to 194+00 (Upstream Project Limit)	49,133	555	48,578	50,000
Total to Design Invert Elevation, Based on 2013 Bathymetric Survey	**567,999**	**37,171**	**545,828**	**550,000**
Total to Design Invert Elevation with 20% Sedimentation Factor[1]			**654,994**	**660,000**

[1] This 20% contingency is for ongoing sedimentation (in between 2013 survey and time of construction). The cut volume between the dredge limit and project limit (incidental sloughing of dredge cut side slopes during construction) is now included in the volumes to design

Volumes with Overdredge Allowance[2]				
One-Foot Overdredge – Station 8+00 to 139+40			184,370	180,000
Total with 20% Sedimentation Factor and One-Foot Overdredge			**839,364**	**840,000**
Two-Foot Overdredge – Station 8+00 to 139+40			368,741	370,000
Total with 20% Sedimentation Factor and Two-Foot Overdredge			**1,023,735**	**1,100,000**

Final construction methods would be determined by the construction contractor and dictated by constraints such as depth of water, access for equipment, and bridge clearances; however, some potential construction approaches for dredging within the lower SAR and disposal/reuse of dredged sediment at the beach receiver sites are as follows.

Previous sediment removal projects provide guidance as to construction methods that are feasible in the lower SAR. Approximately 1.6 million CY of sediment has been dredged from the lower SAR downstream of the I-405 freeway since and including its stabilization in 1994. The majority of the dredged materials have been beneficially re-used for beach nourishment. The most relevant maintenance event occurred in 2005, conducted by the Corps. At that time, two distinct segments of the river were dredged and excavated:

a) approximately 100,000 CY between stations 18+00 and 32+00 (from PCH and extending 1,400 feet upstream); and,
b) approximately 140,000 CY between stations 150+00 to 190+00 (near Adams Avenue).

The construction method to remove the sediment in the lower reach consisted of the construction of a temporary dike across the river just upstream of PCH to hold back the tide with the intent of removing the upstream material in the dry; however, an early-season storm destroyed the dike and the material was ultimately removed by hydraulic dredge and placed in the near-shore just down-coast of the river mouth in the City of Newport Beach. The upstream limit of tidal influence in the SAR occurs at approximately Station 120+00. The material from the upstream reach was excavated with conventional earth-moving equipment and hauled out by truck to various placement sites. Trees and thick vegetation were removed by the Corps from the upstream reach during that time. In the 1991-1994 Corps' project, the ocean-compatible material in the lower reaches was excavated, trucked to, and dumped into a "pond" (diked section) within the river near the mouth. From there, material was hydraulically dredged and discharged via pipeline into the near-shore off of Newport Beach. The SAR was under its initial construction and not tidally influenced to the extent it is now. Thus, much of the sediment removal could be performed in the dry.

For the currently proposed maintenance dredging, the likely construction methods would be a combination of hydraulic dredging for work in the downstream tidal zone and land-based excavation in the dry upstream areas. It is assumed that the upstream limit of hydraulic dredging is at approximately the bicycle bridge at Station 139+40 (i.e. sediment downstream of there would be hydraulically dredged and sediment upstream would be removed using conventional excavators, dozers, loaders, screen plants, and trucks). Transport to the beach receiver sites could occur via four

invert, assuming a 2:1 (H:V) side slope sloughing condition.

[2] One-foot and two-foot overdrege allowances are included for reference purposes in order to understand the range of possible dredge volumes. The total volume with the two-foot overdepth allowance represents the maximum total volume that could be removed based on the potential tolerance capabilities of the dredge equipment. Accordingly, this volume also represents the maximum total that could be discharged (used as beach fill) in waters of the United States and thus is appropriate for permit purposes.

potential methods: a) pipeline, b) barge, c) trucks hauling the material directly to the onshore beach sites, and/or d) trucks hauling the material to a downstream tidal location where the dry sand could be liquefied (sand slurry), and then hydraulically dredged and piped for either onshore or near-shore beach placement. The latter method would require construction of a dike across the river to isolate the dry segment from the tidal area.

For discharge into the selected Newport Beach near-shore receiver site (Figure 6), the hydraulically-dredged material could be pumped from the dredge site directly to the placement site via pipeline along the ocean floor. The pipeline would discharge material directly on the ocean floor (approximately between the elevations of -10 and -20 feet MLLW) and the pipeline would be repositioned periodically to spread the discharge linearly along the coastline. Alternatively, dredge sediment could be pumped from the dredge site via pipeline to a barge over the Newport Beach near-shore discharge site. Material would exit a barge-mounted downspout near the ocean floor and settle on the ocean floor within the placement site. The barge would be re-positioned periodically to spread the discharge evenly.

For discharge to the various potential receivers sites Huntington Harbour, Seal Beach, Newport Harbor and San Clemente the dredge material would be too far to pump all the way from the SAR, but it would be possible to hydraulically pump and load the SAR dredge material onto ocean barges or scows, transport the material to the near-shore area of these beaches, and then pipe the slurried material onshore. For onshore placement sand containment dikes would likely be constructed on the beach to receive and dewater the slurry material, which would be placed on the high beach. Alternatively, the dredge sediment could be delivered directly to the beach sites via trucks. Bulldozers would ultimately spread the material along the beach per the specified fill design.

Routine Maintenance Measures would include the following:

1. Vegetation may be removed annually outside the period of February 1 to September 1, which would avoid the bird-nesting season. Should work be required within the nesting season, a qualified on-site biological monitor would be present during maintenance activities. Pest control may be performed including herbicides, insecticides, rodenticides, and fungicides as necessary for plant and plant community health. State certified applicators and EPA approved methods and materials shall be used.

2. Annual or routine maintenance includes the excavation of a maximum 40-ft wide (top width) pilot channel in order to move water from upstream to downstream between the larger sediment removal operations. The limits of the pilot channel would be between the end of the upstream concrete invert at Station 194+00 to the Victoria Street/Hamilton Avenue bridge crossing near Station 91 + 00. The material excavated for the pilot channel (maximum of 20,000 CY) may be used upstream outside of jurisdictional areas.

Proposed Mitigation– 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: The following avoidance measures would be implemented as part of the project. Consideration for alternative avoidance measures in lieu of the measures listed below such as noise and visual screening may be proposed by the Applicant for approval by the Corps prior to start of

maintenance activities if such alternative avoidance measures become necessary to implement the project:

- Maintenance related activities (e.g. staging areas, hauling of material, access to river channel) would not take place between February 1 and September 1 on the east bank of Reach 1 since riparian vegetation used by breeding least Bell's vireo and other riparian birds is just east of Reach 1.

- Equipment would not encroach within 100 feet of the east levee between Stations 34+00 and 150+32 of Reach 1 between February 1 and September 1. This would ensure that a 300 foot buffer exits between all construction related activity on the channel bottom and the riparian vegetation to the east.

- No maintenance related activity would occur from Station 34+00 to the Pacific Ocean between February 1 and September 1 to avoid impacts to foraging California least terns.

Minimization: With implementation of the BMPs outlined below, the proposed action would avoid or minimize any temporary construction-related potential effects to water quality, EFH, and federal listed species:

- The project applicant would conduct a pre-project Caulerpa survey within 30 to 90 days prior to dredging. Surveys would be consistent with the National Marine Fisheries Service Caulerpa Control Protocol. If this species is found, protocols for the eradication of Caulerpa would be implemented to remove this species from the project site.

- The applicants would comply with water quality monitoring requirements during dredging that are determined by the RWQCB.

- If dredging or other maintenance activities that could result in disturbances to the California least tern occur during the nesting season of April to September, daily monitoring would be performed by a qualified biologist in accordance with requirements set forth in the executed California Department of Fish and Wildlife Streambed Alteration Agreement No. 1600-2007-0199-Rd.

Compensation: The applicant has preliminarily proposed that mitigation was addressed as part of the original improvements to the lower SAR and from the permanent impacts and associated mitigation implemented as a results of the Corps' maintenance project in 2004-2005. Mitigation for these two events included the following:

- 1,100-acre Habitat Management Area/floodplain established (Reach 9). This was established for general impacts associated with the SAR Project;

- 92 acres of the SAR saltmarsh were acquired in fee and restored. Of the 92 acres, 8 acres were cost-shared mitigation and 84 acres of endangered species and fisheries enhancement (refer to Santa Ana River Marsh Restoration Area Exhibit). Restoration included construction and/or improvements to two tide gates that allow greater tidal exchange in the marsh; vegetation planting; grading and channel construction; and construction of a "least tern island" intended to provide additional nesting area for the endangered bird;

- Victoria Pond was reconfigured, revegetated, and expanded;

- Due to the relocation of Talbert Channel, monetary compensation was given to the California Department of Parks and Recreation for the loss of 5 acres of Huntington State Beach; and,

- 17 acres of restoration, creation, and/or enhancement of Fairview Park adjacent to the lower SAR.

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.

Proposed Special Conditions

Special Conditions would be added based on public notice comments and environmental considerations.

For additional information, please contact Gerardo Salas at 213-452-3417 or via e-mail at Gerardo.Salas@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
915 WILSHIRE BOULEVARD, SUITE 930
LOS ANGELES, CALIFORNIA 90017

WWW.SPL.USACE.ARMY.MIL/MISSIONS/REGULATORY

FIGURE 1

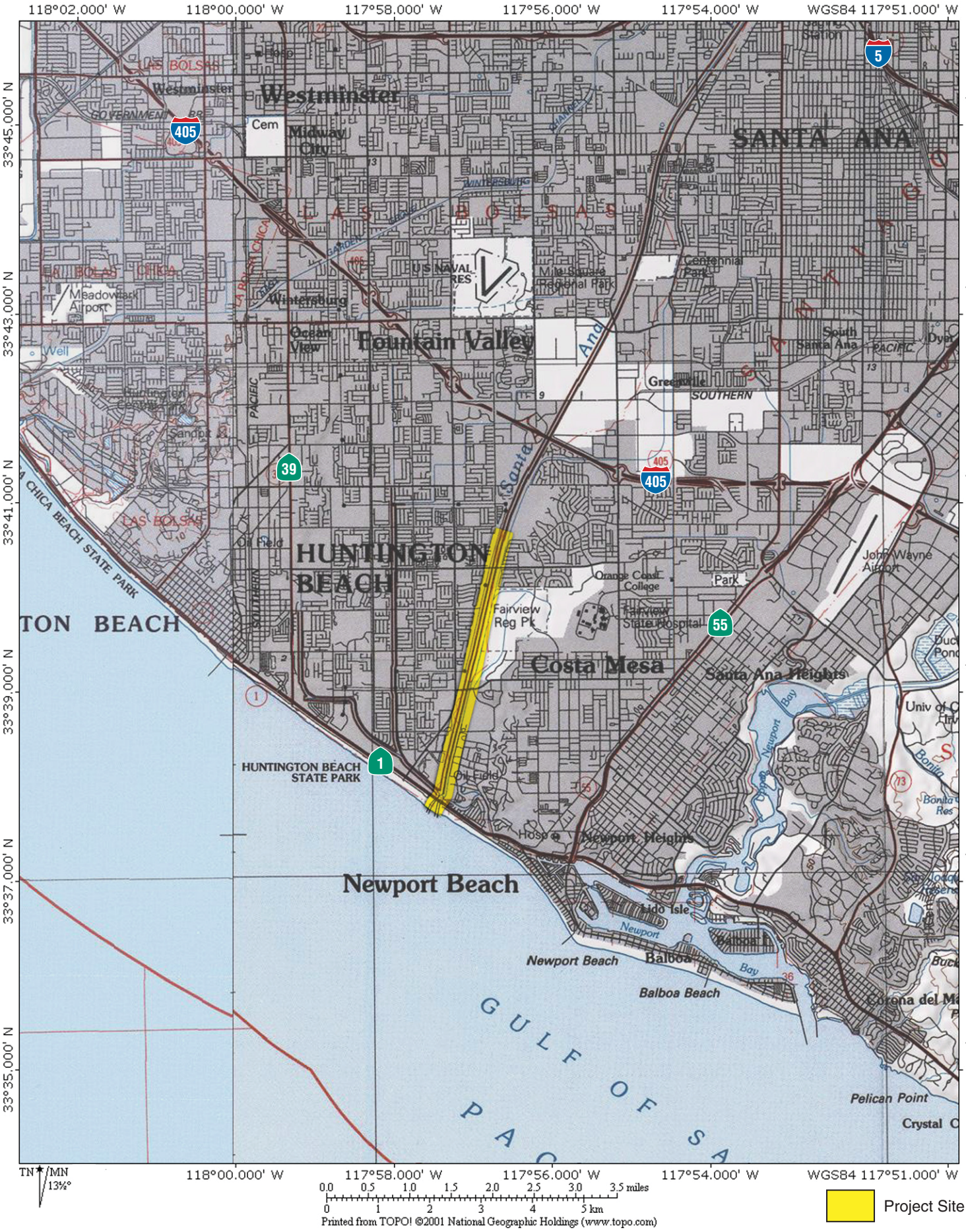
RBF CONSULTING

not to scale

5/10/07 JN 10-103795-13961

SANTA ANA RIVER (REACHES 1 AND 2)
LONG-TERM MAINTENANCE

Regional Vicinity



SANTA ANA RIVER (REACHES 1 AND 2)
LONG-TERM MAINTENANCE

Site Vicinity

RBF CONSULTING

0 2500'
APPROXIMATE

5/10/07 JN 10-103795-13961

Figure 2

RBF CONSULTING GIS

500 250 0 500
Feet

Source: Eagle Aerial Imaging
LSA and Associates

SANTA ANA RIVER (REACHES 1 & 2)
LONG-TERM MAINTENANCE

PROJECT SITE

Figure 3

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RBF CONSULTING GIS

500 250 0 500
Feet

Source: Eagle Aerial Imaging
LSA and Associates

SANTA ANA RIVER (REACHES 1 & 2)
LONG-TERM MAINTENANCE
PROJECT SITE

Figure 4

M:\Mdata\10103795\GIS\SanAnaRiver.mxd 5/3/2007 -- JM

RBF CONSULTING GIS

500 250 0 500
Feet

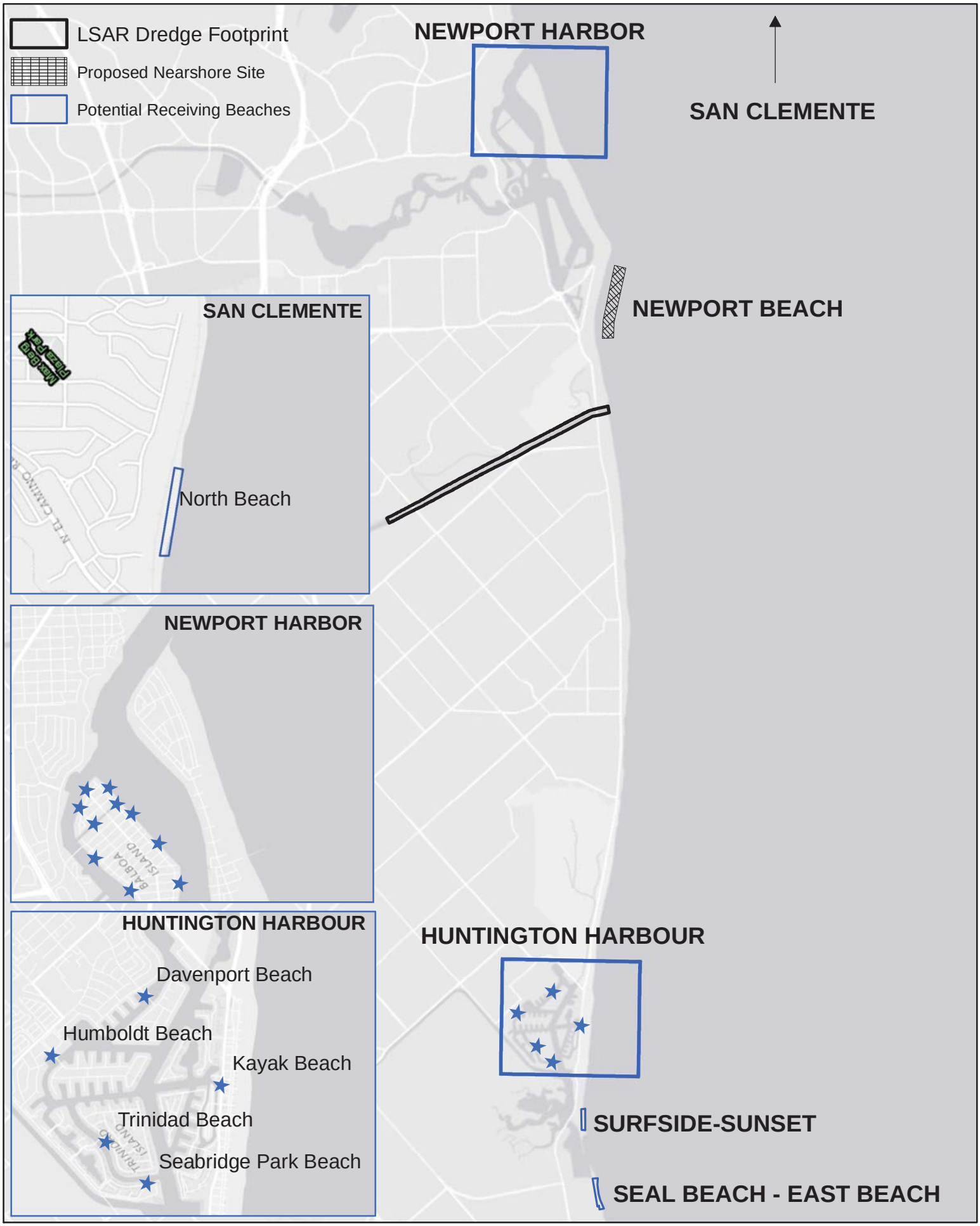
Source: Eagle Aerial Imaging
LSA and Associates

SANTA ANA RIVER (REACHES 1 & 2)
LONG-TERM MAINTENANCE

PROJECT SITE

Figure 5

M:\Mdata\10103795\GIS\SanAnaRiver.mxd 5/3/2007 -- JM



0 0.5 1 2 Miles

Figure 6

moffatt & nichol