DEPARTMENT OF THE ARMY
REGIONAL GENERAL PERMIT NUMBER 46

Permittee: Orange County Public Works

Project Name: OCPW Ocean Outlets Maintenance Program

Permit Number: SPL-2010-00868

Issuing Office: Los Angeles District

Note: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

Project Description:

The Orange County Public Works (OCPW) Ocean Outlets Maintenance Program (Project) would consist of recurring outlet maintenance activities at the Talbert Channel (Talbert) Outlet (Exhibit 2), Santa Ana River (SAR) Outlet (Exhibit 3), Salt Creek Outlet (Exhibit 4), Estrella Storm Channel (Estrella) Outlet (Exhibit 5), and Segunda Deshecha (SD) Outlet (Exhibit 6).

Maintenance Activities would generally be conducted semiannually, once before the storm season (late summer/early fall) and once before the summer recreation season (early spring). In addition, the channels would be occasionally reestablished, as needed, during other times of the year when the meandering stream flow either precludes recreational use of public beach areas, affects private property, beach nourishment is necessary, or the tidal exchange is blocked by sediment.

Maintenance activities would involve removal of sand deposits from the ends of the outlet structures and spreading of the removed sand on beach areas adjacent to the outlets. Rock slopes and aprons would be reestablished as needed using only preexisting rocks at each site. Repair of rock slopes and aprons would not use imported rocks or protective matting unless rock has been washed out and is unable to be retrieved. Sand would predominantly be distributed above the high tide except at the Salt Creek and Santa Ana River sites where beach erosion has resulted in insufficient placement area above the high tide line in some areas (see Exhibits 3 and 4).

In the late summer or fall, the outlets would be inspected by OCPW and sand would be removed from each outlet to return the facilities to design grade in accordance with the Ocean Outlet Maintenance Manual (dated October 2018). In addition, rock revetments would be re-established,

as needed. In the spring, maintenance would include re-establishment of the outlet channels to as-built conditions to prepare the beach for summer recreational use. Work would generally be accomplished using bulldozers, backhoes, excavators, and/or off-road haul trucks.

A summary of maintenance activities proposed for each outlet is provided below:

- **Talbert Outlet:** Semi-annual maintenance at the Talbert Outlet would include excavation of approximately 15,000 cubic yards (CYs) of accumulated sediment within the outlet from a 3.51-acre area within Corps jurisdiction (Exhibit 2). The discharge of excavated sediment and related earthwork associated with each maintenance event would occur on the beach adjacent to the outlet in an approximately 3.12-acre area above the high tide line. As required for California least tern habitat management, minor maintenance activities may be conducted during summer months to remove any shoal blocking tidal flow into Talbert Marsh. In such cases, OCPW would ensure the completion of maintenance to open the outlet within seven days of any observed blockages.
- **SAR Outlet:** Semi-annual maintenance at the SAR Outlet would include excavation of approximately 70,000 CYs of accumulated sediment within the outlet from a 6.36-acre area within Corps jurisdiction (Exhibit 3). The discharge of excavated sediment and related earthwork associated with each maintenance event would occur on the beach adjacent to and downcoast of the outlet in an approximately 11.22-acre area, approximately 6.70 acres (40,000 cubic yards) of which would be discharged within Corps jurisdiction. Rock jetties in the SAR Outlet would be repaired as necessary. Additional implementation of the aforementioned maintenance activities may be conducted on an as-needed basis up to five times per year.
- **Salt Creek Outlet:** Semi-annual maintenance at the Salt Creek Outlet would include replacement of dislodged rip-rap in front of the concrete apron structure and removal of approximately 1,000 CY of accumulated sediment within the outlet from a 0.23-acre area within Corps jurisdiction (Exhibit 4). The discharge of excavated sediment and related earthwork associated with each maintenance event would occur on the beach adjacent to the outlet in an approximately 0.20-acre area, approximately 0.05 acre (200 cubic yards) of which would be discharged within Corps jurisdiction. Additional implementation of the aforementioned maintenance activities may be conducted year-round on an as-needed basis.
- **Estrella Outlet:** Semi-annual maintenance at the Estrella Outlet would include excavation of approximately 500 CYs of accumulated sediment within the outlet from a 0.06-acre area above the high tide line (Exhibit 5). The discharge of excavated sediment and related earthwork associated with each maintenance event would occur on the beach adjacent to the outlet in an approximately 0.12-acre area above the high tide line. Maintenance to repair/replace the storm drain flap gate would also be conducted as necessary.
- **SD Outlet:** Semi-annual maintenance at the SD Outlet would include excavation of approximately 1,000 CYs of accumulated sediment within the outlet from a 0.08-acre area above the high tide line (Exhibit 6). The discharge of excavated sediment and related earthwork associated with each maintenance event would occur on the beach adjacent to

the outlet in an approximately 0.2-acre area above the high tide line. Rock slope protection would also be repaired as necessary.

Project Location: The project would occur at and adjacent to five ocean outlets in the cities of Huntington Beach, Dana Point, and San Clemente, Orange County, California (Exhibits 2-6) at the following approximate locations:

Outlet	Latitude	Longitude
Talbert Outlet	33.631834	-117.961448
SAR Outlet	33.629505	-117.957988
Salt Creek Outlet	33.481586	-117.724475
Estrella Outlet	33.450334	-117.659659
SD Outlet	33.431546	-117.632735

Permit Conditions:

General Conditions:

1. The time limit for completing the authorized activity ends on **November 2, 2023**. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.

2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification from this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished with the terms and conditions of your permit.

Special Conditions:

1. **Pre-Construction Notification (PCN) Requirements**: Coastal Development Permit (CDP) Amendment No. 5-02-031-A5 expires on July 1, 2021 (Attachment A). Therefore, the Permittee shall submit a PCN to the Corps Regulatory Division for maintenance activities occurring after June 30, 2021. No work shall occur after June 30, 2021 until written authorization is issued by the Corps Regulatory Division. This requirement may be waived if the Permittee receives authorization from the California Coastal Commission to conduct work after June 30, 2021. Additionally, no work shall be authorized that exceeds the scope of activities authorized under CDP No. 5-02-031 until written authorization is issued by the Corps Regulatory Division.

2. **Authorized Work**: Any work authorized by this permit must be the minimum necessary to alleviate the maintenance need and shall not exceed the design specifications of the ocean outlets. In the event that additional maintenance activities are required at an outlet, the Permittee shall submit a PCN to the Corps Regulatory Division to perform the work. If the work requested under the permit were denied, the Permittee shall apply for a separate permit.

3. **Seasonal Restrictions**: Seasonal restrictions shall be imposed to avoid and minimize impacts to sensitive species, including any federally listed endangered or threatened species.

    a. All maintenance activities conducted at the Salt Creek, Talbert, and SAR Outlets shall occur outside the breeding season for western snowy plover (*Charadrius nivosus nivosus*) (March 1st through August 31st) to the maximum extent practicable. If maintenance activities are required during the breeding season, a qualified biologist shall conduct pre-construction bird surveys. If western snowy plovers are observed exhibiting nesting behaviors (scraping, territorial displays or call, false brooding, etc.) during the breeding season, no project-related activities shall occur within 500 feet of these areas until subsequent monitoring indicates western snowy plovers are no longer present. If western snowy plovers are not observed exhibiting nesting behaviors but are roosting within 500 feet of the project footprint, a qualified biologist shall be present on-site at all times during maintenance activities requiring mechanized equipment. The qualified biologist shall have the ability to halt maintenance activities. If western snowy plovers are observed nesting within 0.2 mile of the project site, the Permittee shall immediately notify the Corps Regulatory Division.

    b. All maintenance activities conducted at the Salt Creek, Talbert, and SAR Outlets shall occur outside the breeding season for the California least tern (*Sternula antillarum browni*) (April 1st to September 15th) to the maximum extent practicable. If maintenance activities are required during the breeding season, a qualified biologist shall conduct pre-

construction bird surveys. If California least terns are observed exhibiting nesting behaviors (scraping, territorial displays or calls, etc.) during the breeding season, no project-related activities shall occur within 500 feet of these areas until subsequent monitoring indicates California least terns are no longer present. If California least terns are not observed exhibiting nesting behaviors but are roosting or staging within 500 feet of the project footprint, a qualified biologist shall be present on-site at all times during maintenance activities requiring mechanized equipment. The qualified biologist shall have the ability to halt maintenance activities. If California least tern nests are located within 500 feet of the project site, the Permittee shall immediately notify the Corps Regulatory Division.

c. The Permittee shall conduct all maintenance activities outside of the California grunion (*Leuresthes tenuis*) spawning season (March 1st through September 30th) to the maximum extent practicable. If maintenance activities are required during the spawning season, pre-project surveys for grunion activity shall be conducted by a qualified biologist in accordance with the protocols described in the Grunion Protection Plan for Necessary Outlet Maintenance During the Grunion Spawning Season of March through September Report (Chambers Group, Inc., September 7, 2006). Impacts to grunion spawning areas shall be avoided or minimized in accordance with the protocols described in this report.

4. **Endangered Species**: This Corps permit does not authorize you to take any threatened or endangered species, in particular, the western snowy plover or California least tern, or adversely modify their designated critical habitat. In order to legally take a listed species, you must have separate authorization under the Endangered Species Act (ESA) (e.g. ESA section 10 permit, or a Biological Opinion (BO) under ESA section 7, with "incidental take" provisions with which you must comply). Your authorization under this Corps permit is conditional upon your compliance with all of the required avoidance and minimization measures, which are incorporated by reference in this permit (Attachment B). Failure to comply with the required avoidance and minimization measures would constitute non-compliance with your Corps permit.

5. **Historic Properties**: Pursuant to 36 C.F.R. section 800.13, in the event of any discoveries during construction of either human remains, archeological deposits, or any other type of historic property, the Permittee shall notify the Corps' Archeology Staff within 24 hours (Danielle Storey at 213-452-3855 or Meg McDonald at 213-452-3849). The Permittee shall immediately suspend all work in any area(s) where potential cultural resources are discovered. The Permittee shall not resume construction in the area surrounding the potential cultural resources until the Corps Regulatory Division re-authorizes project construction, per 36 C.F.R. section 800.13.

6. **Access**: You must allow representatives from this office and other Federal and state resource agencies to inspect the authorized activity at any time deemed necessary to ensure the project is being or has been accomplished in accordance with the terms and conditions of this RGP.

7. **Best Management Practices**: No debris, soil, silt, sand, sawdust, rubbish, cement or concrete washings thereof, oil or petroleum products, from construction shall be allowed to enter into or be placed where it may be washed by rainfall or runoff into waters of the United States. Therefore, the Permittee shall employ all standard Best Management Practices to ensure that toxic materials, silt, debris, or excessive erosion do not enter waters of the United States during project construction.

8. **Erosion and Siltation Control**s: When performing any excavation activity in or near the outlets, all excavated material shall be distributed onto the adjacent beach above high tide line, except as allowed below the high tide line for the SAR and Salt Creek outlet sediment. Every effort must be made to ensure any material excavated from waters of the United States is not likely to be washed back into any waters of the United States.

9. **Equipment**: Vehicles shall not be driven or equipment operated in waters of the United States on-site, except as necessary to complete the proposed project. The Permittee shall ensure all vehicle maintenance, staging, storage, and dispensing of fuel occur in designated upland areas, located in such a manner as to prevent any runoff from entering waters of the United States.

10. **Suitable Material**: The Permittee shall discharge only clean materials suitable for use in the oceanic environment. No discharge of dredged or fill material may consist of unsuitable material (e.g., trash, debris, car bodies, asphalt, etc.) and material discharged must be free from toxic pollutants in toxic amounts (see section 307 of the Clean Water Act).

11. **Aquatic Life Movements**: No activity may substantially disrupt the movement of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through the area.

12. **Spawning Areas**: Discharges into spawning areas during spawning season shall be avoided to the maximum extent practicable. See Special Condition 3 for seasonal restrictions.

13. **Waterfowl Breeding Areas**: Discharges into breeding areas for migratory waterfowl must be avoided to the maximum extent practicable.

14. **Navigation**: The permitted activity shall not interfere with the right of the public to free navigation on all navigable waters of the United States. The Permittee understands and agrees that, if future operations by the United States require the removal, relocation, cessation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the Permittee will be required, upon due notice from the Corps, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim shall be made against the United States on account of any such removal or alteration.

15. **Reports**: The Permittee shall submit an annual written report to this office, with copies

provided to the U.S. Fish and Wildlife Service and National Marine Fisheries Service, by February 1st of each year this RGP is valid. The report shall summarize all maintenance activities conducted at the ocean outlets throughout the year under this RGP. The reports shall include written documentation and photographs of all work performed under this RGP during the prior year. Any data collected, including water quality samples and terrestrial or aquatic sensitive species surveys, shall be included in the annual report. **Providing this report is mandatory**. These reports enable us to track the use of this RGP to verify that the minimal effects determination is being met, as required by section 404(e) of the Clean Water Act. Failure to provide timely annual reports would constitute non-compliance with this Special Condition and would be considered a violation (33 C.F.R. section 326.4(d)). **Furthermore, failure to provide these annual reports will jeopardize the possibility of reauthorizing this permit when it expires**. At a minimum, the report shall include the following information:

a. The name, address, and telephone number of:
    i. The Permittee's Point of Contact
    ii. The Permittee's agent (if appropriate)

b. Full description of the activities conducted during the previous year, including:
    i. Description of each maintenance event for each ocean outlet, including any deviations from the project description. This description shall include the approximate volume of material dredged and the location of placement of this material on an aerial photograph
    ii. Size and description of the project area (include maps, drawings, and photographs)
    iii. Information on the receiving waterbody impacted including:
        a) Name of waterbody
        b) Type of receiving waterbody
        c) Temporary/permanent adverse impact(s) in acres/cubic yards/linear feet
        d) Other mitigation steps (to avoid, minimize)
        e) Compensatory mitigation in acres/cubic yards/linear feet
    iv. Information on federally listed or proposed endangered species, designated or proposed critical habitat, EFH, and federally managed fish species including:
        a) Temporary/permanent adverse impacts
        b) Mitigation steps (to avoid, minimize)
        c) Compensatory mitigation

Further Information:

1. Congressional Authorities. You have been authorized to undertake the activity described above pursuant to:

(X) Section 10 of the River and Harbor Act of 1899 (33 U.S.C. 403).

(X) Section 404 of the Clean Water Act (33 U.S.C. 1344).

( ) Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data. The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measure ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

PERMITTEE

JAMES VOLZ, P.E.
SENIOR CIVIL ENGINEER

11/6/2018
DATE

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

Digitally signed by DIEBOLT.SARAH.1231388229
DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=DIEBOLT.SARAH.1231388229
Date: 2018.11.07 10:01:03 -07'00'

Sarah Diebolt
Chief, Arizona Branch
Regulatory Division

07 NOV 2018
DATE

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

TRANSFEREE

DATE

Exhibit 1:

Locations of OCPW Ocean Outlets

Exhibit 2:

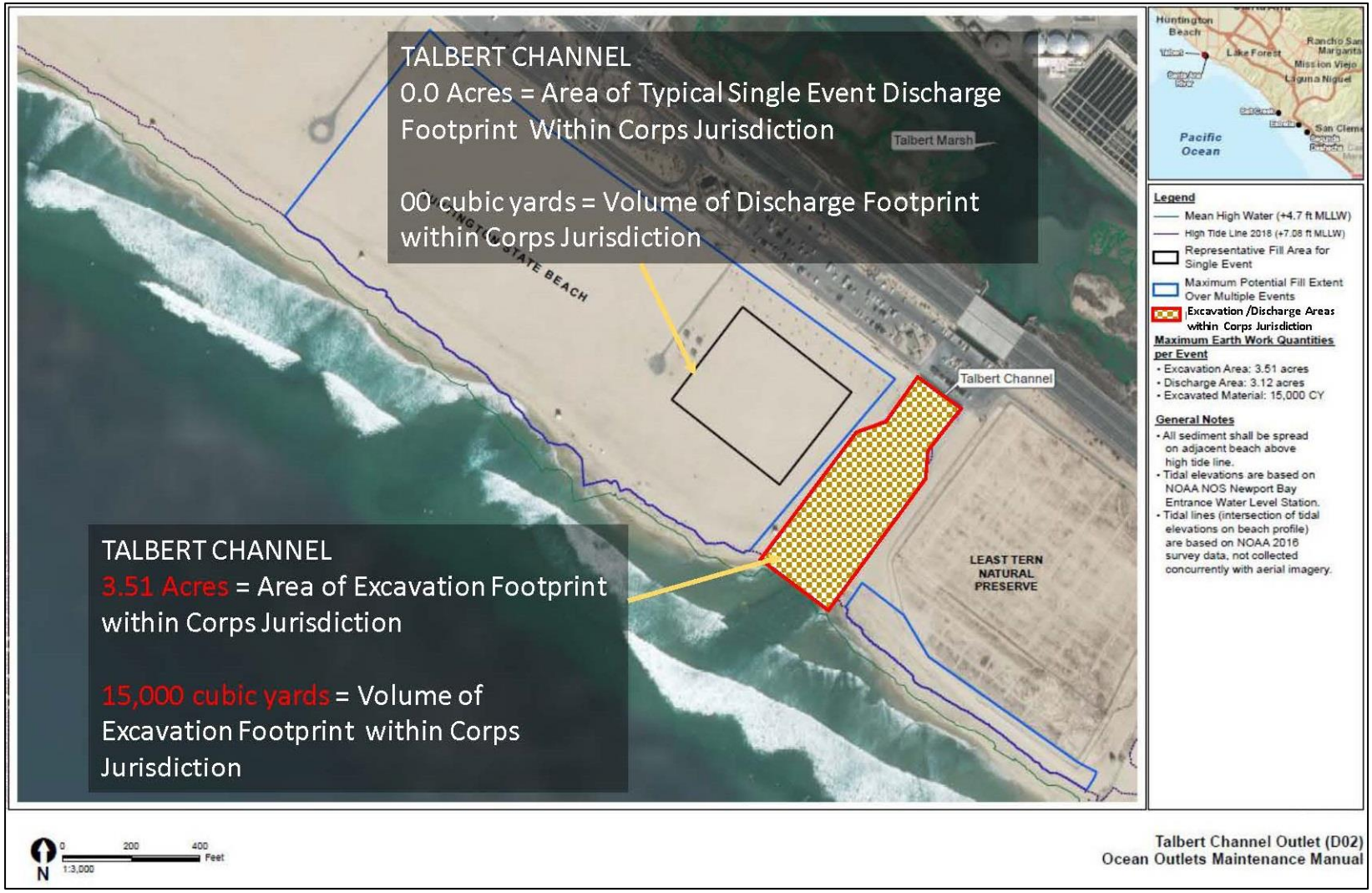
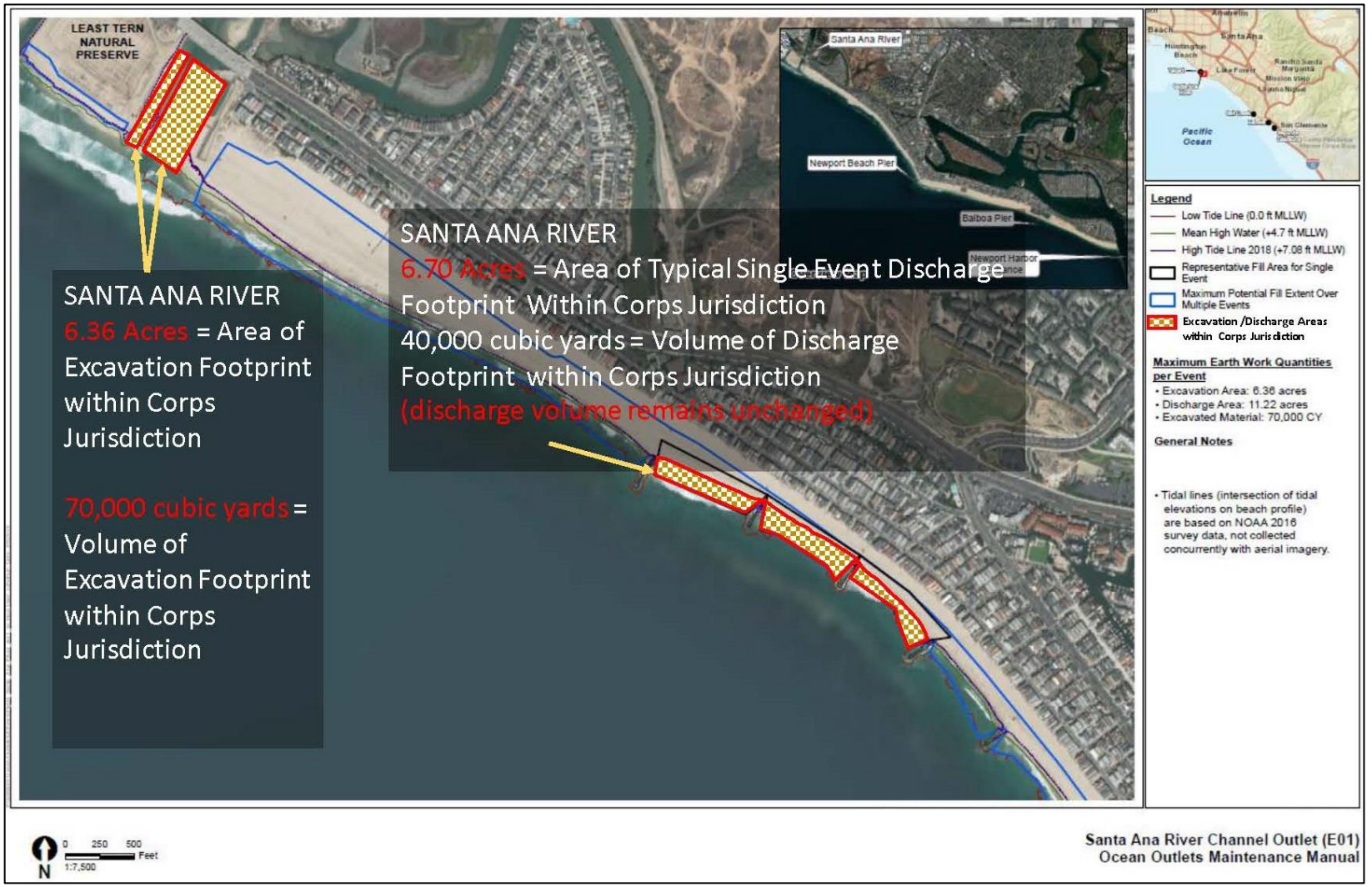

TALBERT CHANNEL
0.0 Acres = Area of Typical Single Event Discharge Footprint Within Corps Jurisdiction
00 cubic yards = Volume of Discharge Footprint within Corps Jurisdiction
TALBERT CHANNEL
3.51 Acres = Area of Excavation Footprint within Corps Jurisdiction
15,000 cubic yards = Volume of Excavation Footprint within Corps Jurisdiction
Talbert Marsh
Talbert Channel
LEAST TERN NATURAL PRESERVE
Huntington Beach
Lake Forest
Rancho San Margarita
Mission Viejo
Laguna Niguel
Pacific Ocean
Legend
Mean High Water (+4.7 ft MLLW)
High Tide Line 2018 (+7.08 ft MLLW)
Representative Fill Area for Single Event
Maximum Potential Fill Extent Over Multiple Events
Excavation /Discharge Areas within Corps Jurisdiction
Maximum Earth Work Quantities per Event
• Excavation Area: 3.51 acres
• Discharge Area: 3.12 acres
• Excavated Material: 15,000 CY
General Notes
• All sediment shall be spread on adjacent beach above high tide line.
• Tidal elevations are based on NOAA NOS Newport Bay Entrance Water Level Station.
• Tidal lines (intersection of tidal elevations on beach profile) are based on NOAA 2016 survey data, not collected concurrently with aerial imagery.
N
0 200 400 Feet
1:3,000
Talbert Channel Outlet (D02)
Ocean Outlets Maintenance Manual

Exhibit 3:


LEAST TERN NATURAL PRESERVE
SANTA ANA RIVER
6.36 Acres = Area of Excavation Footprint within Corps Jurisdiction
70,000 cubic yards = Volume of Excavation Footprint within Corps Jurisdiction
SANTA ANA RIVER
6.70 Acres = Area of Typical Single Event Discharge Footprint Within Corps Jurisdiction
40,000 cubic yards = Volume of Discharge Footprint within Corps Jurisdiction
(discharge volume remains unchanged)
Santa Ana River
Newport Beach Pier
Balboa Pier
Newport Harbor
Pacific Ocean
Legend
Low Tide Line (0.0 ft MLLW)
Mean High Water (+4.7 ft MLLW)
High Tide Line 2018 (+7.08 ft MLLW)
Representative Fill Area for Single Event
Maximum Potential Fill Extent Over Multiple Events
Excavation /Discharge Areas within Corps Jurisdiction
Maximum Earth Work Quantities per Event
• Excavation Area: 6.36 acres
• Discharge Area: 11.22 acres
• Excavated Material: 70,000 CY
General Notes
• Tidal lines (intersection of tidal elevations on beach profile) are based on NOAA 2016 survey data, not collected concurrently with aerial imagery.
N
0 250 500 Feet
1:7,500
Santa Ana River Channel Outlet (E01)
Ocean Outlets Maintenance Manual

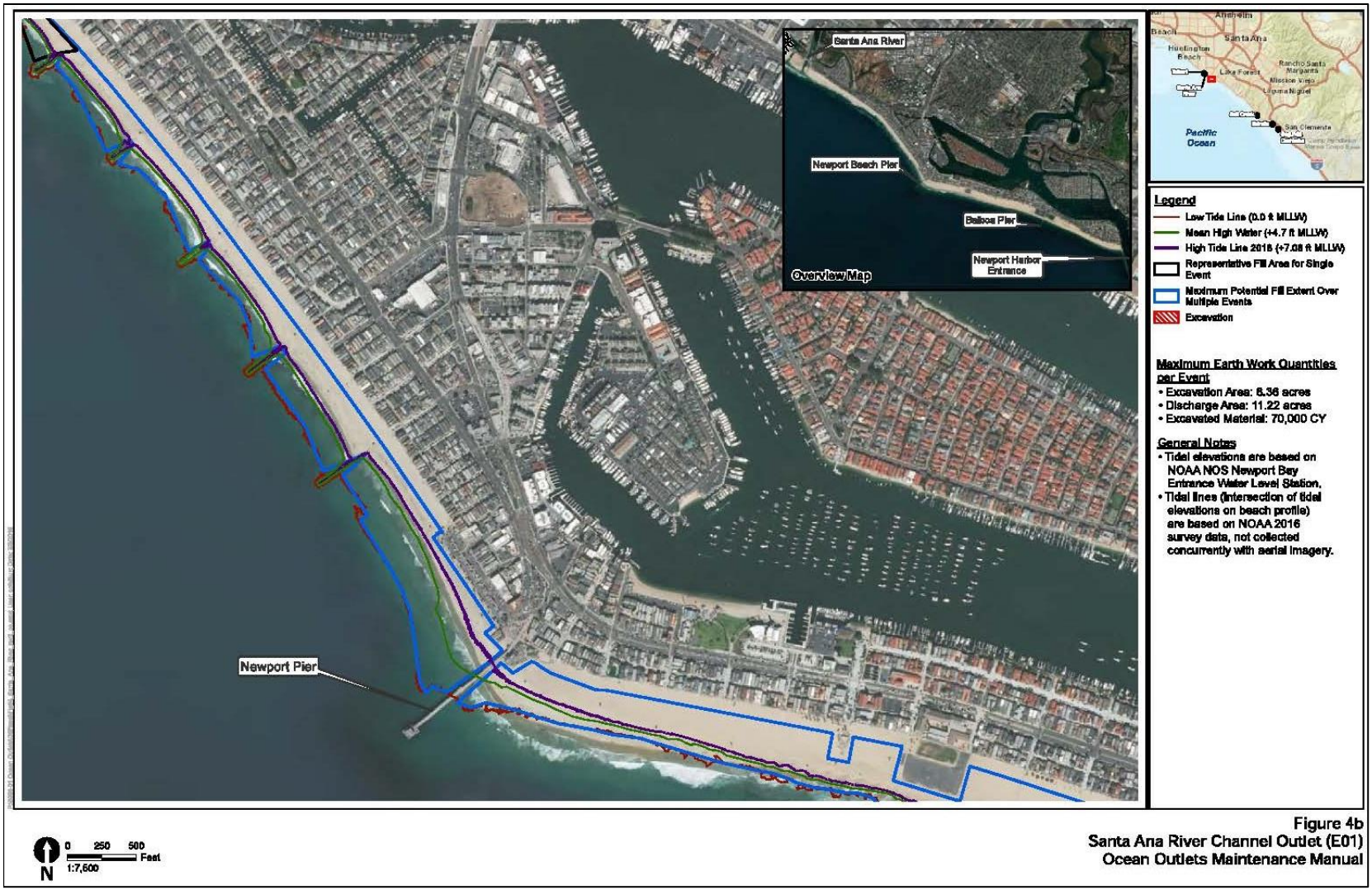


Figure 4b
Santa Ana River Channel Outlet (E01)
Ocean Outlets Maintenance Manual

Figure 4c
Santa Ana River Channel Outlet (E01)
Ocean Outlets Maintenance Manual

Figure 4d
Santa Ana River Channel Outlet (E01)
Ocean Outlets Maintenance Manual

Exhibit 4:

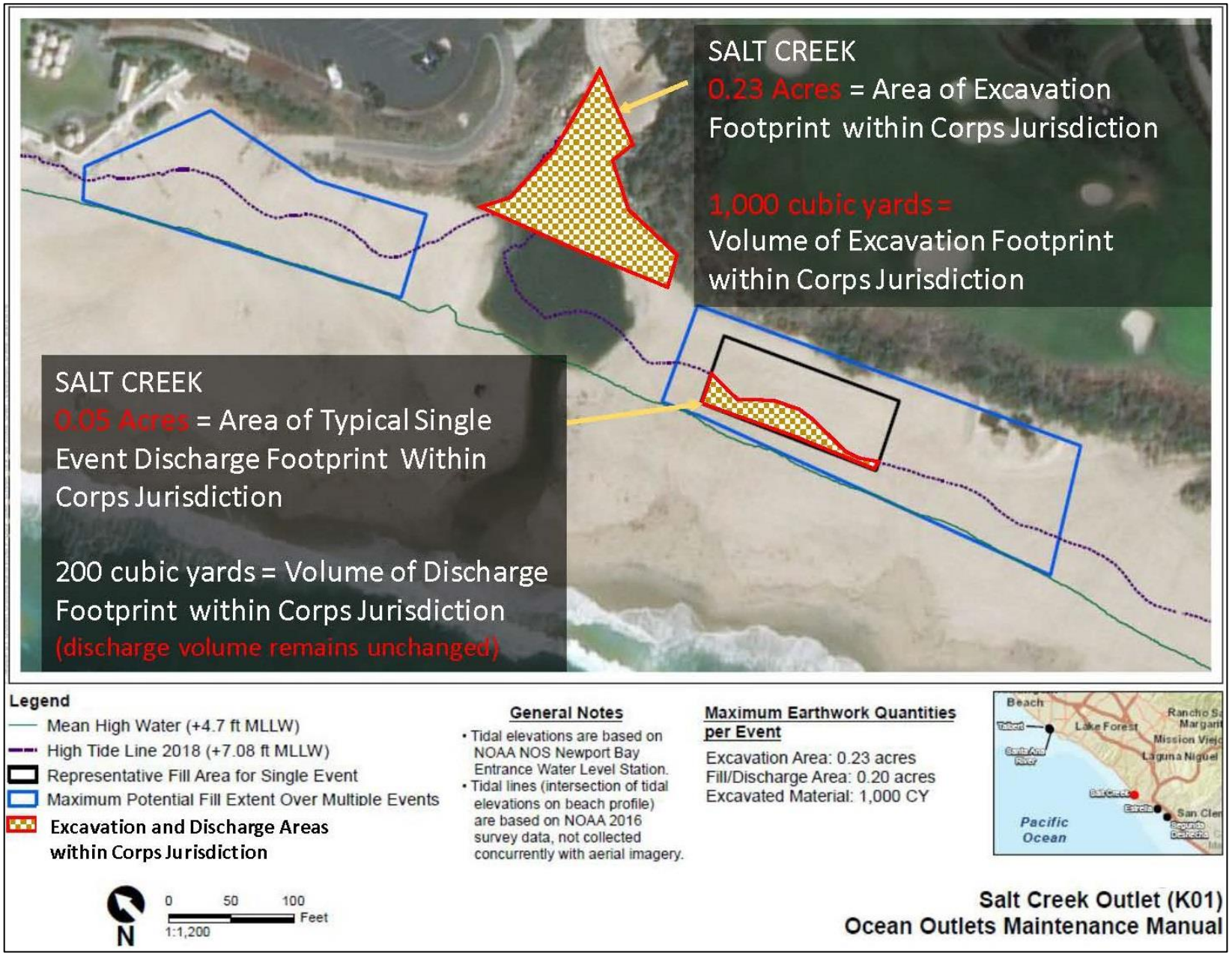
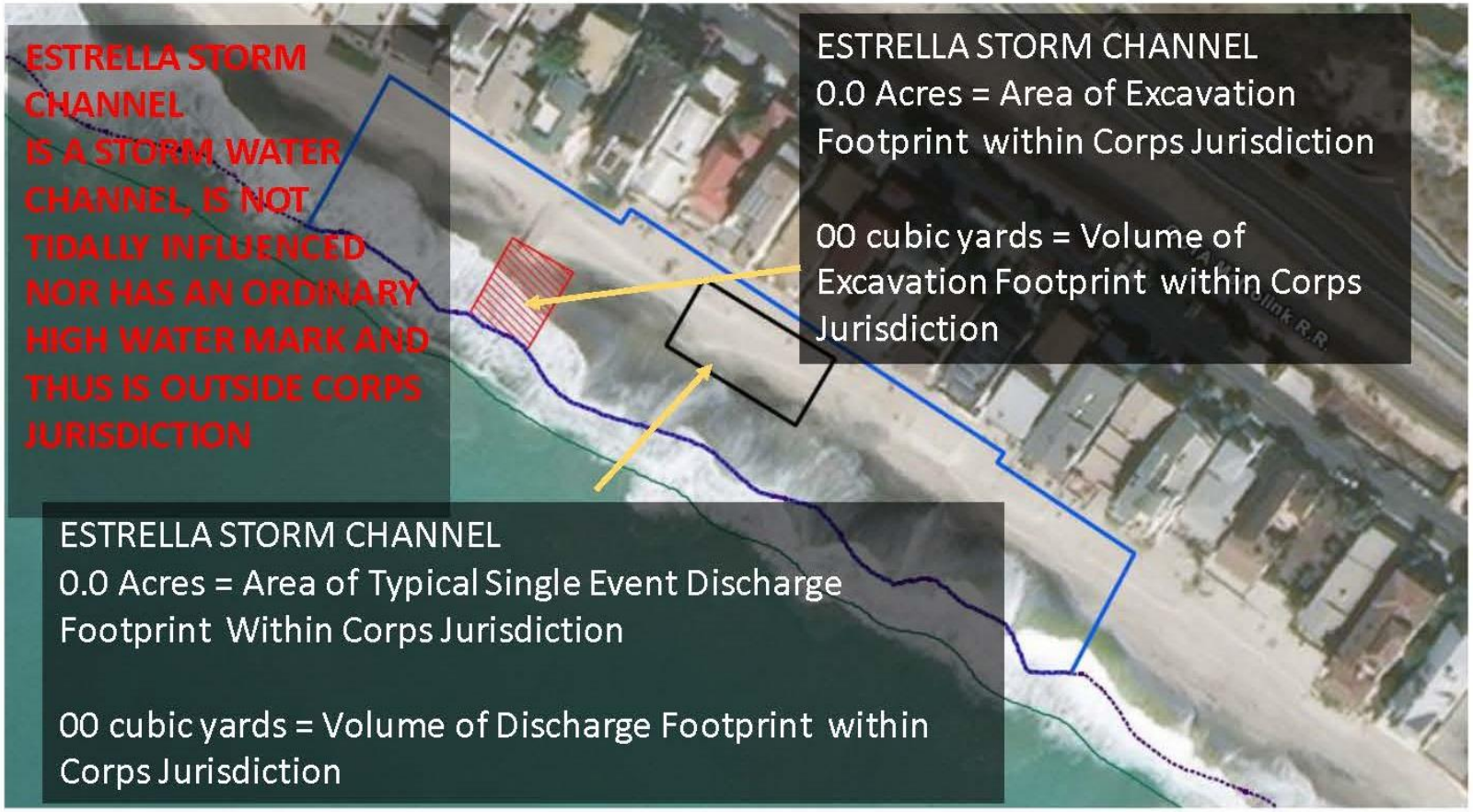

SALT CREEK
0.23 Acres = Area of Excavation Footprint within Corps Jurisdiction
1,000 cubic yards = Volume of Excavation Footprint within Corps Jurisdiction
SALT CREEK
0.05 Acres = Area of Typical Single Event Discharge Footprint Within Corps Jurisdiction
200 cubic yards = Volume of Discharge Footprint within Corps Jurisdiction
(discharge volume remains unchanged)
Legend
Mean High Water (+4.7 ft MLLW)
High Tide Line 2018 (+7.08 ft MLLW)
Representative Fill Area for Single Event
Maximum Potential Fill Extent Over Multiple Events
Excavation and Discharge Areas within Corps Jurisdiction
General Notes
• Tidal elevations are based on NOAA NOS Newport Bay Entrance Water Level Station.
• Tidal lines (intersection of tidal elevations on beach profile) are based on NOAA 2016 survey data, not collected concurrently with aerial imagery.
Maximum Earthwork Quantities per Event
Excavation Area: 0.23 acres
Fill/Discharge Area: 0.20 acres
Excavated Material: 1,000 CY
Beach
Tidal
Lake Forest
Rancho S
Margarit
Mission Viej
Laguna Niguel
Pacific Ocean
San Cle
N
0 50 100 Feet
1:1,200
Salt Creek Outlet (K01)
Ocean Outlets Maintenance Manual

Exhibit 5:



Legend

- Mean High Water (+4.7 ft MLLW)
- High Tide Line 2018 (+7.08 ft MLLW)
- Representative Fill Area for Single Event
- Maximum Potential Fill Extent Over Multiple Events
- Excavation Area

N

0 50 100 Feet

1:1,200

General Notes

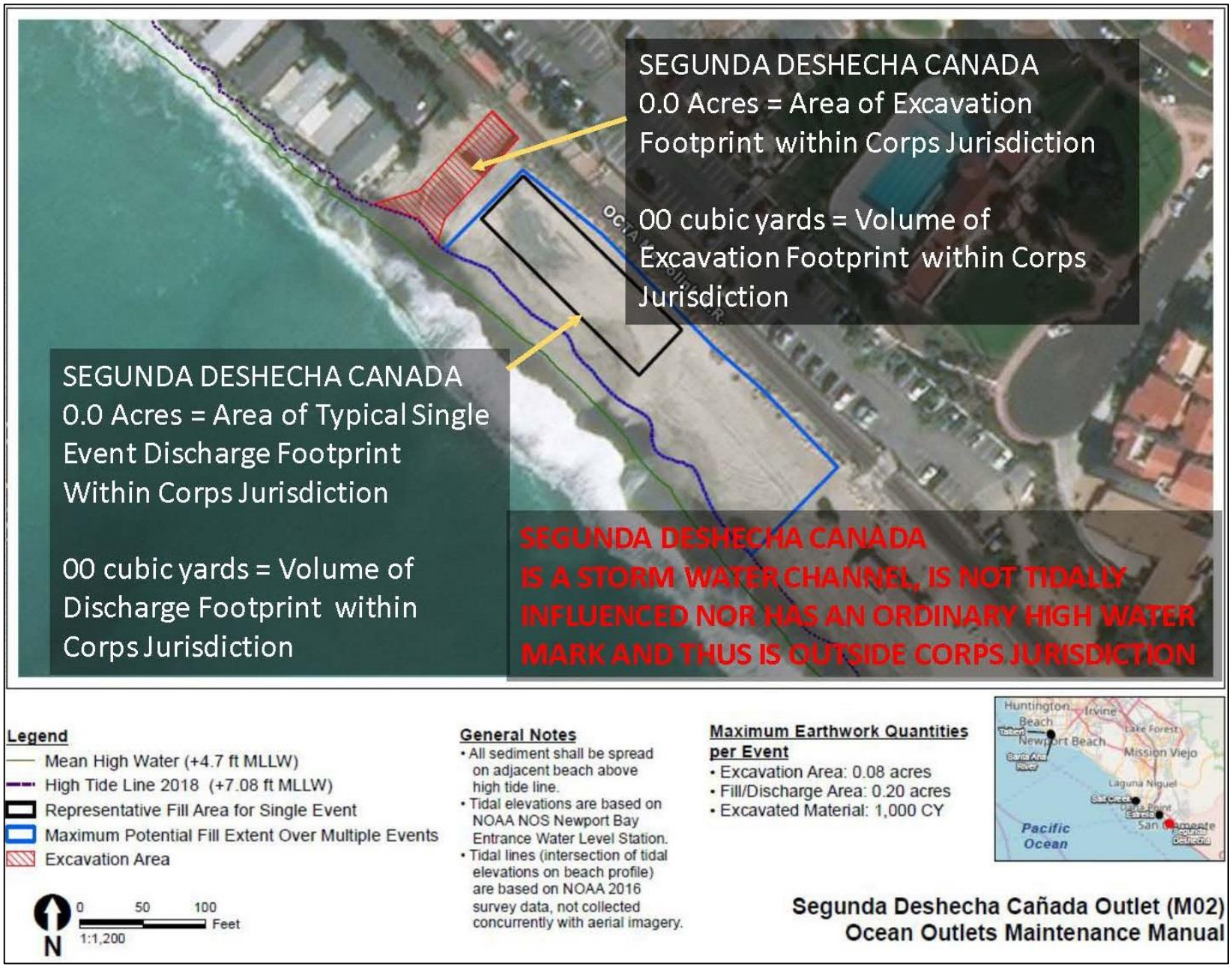
- All sediment shall be spread on adjacent beach above high tide line.
- Tidal elevations are based on NOAA NOS Newport Bay Entrance Water Level Station.
- Tidal lines (intersection of tidal elevations on beach profile) are based on NOAA 2016 survey data, not collected concurrently with aerial imagery.

Maximum Earthwork Quantities per Event

- Excavation Area: 0.06 acres
- Fill/Discharge Area: 0.12 acres
- Excavated Material: 500 CY

Estrella Storm Channel Outlet (M00S01)
Ocean Outlets Maintenance Manual

Exhibit 6:


SEGUNDA DESHECHA CANADA
0.0 Acres = Area of Excavation Footprint within Corps Jurisdiction
00 cubic yards = Volume of Excavation Footprint within Corps Jurisdiction
SEGUNDA DESHECHA CANADA
0.0 Acres = Area of Typical Single Event Discharge Footprint Within Corps Jurisdiction
00 cubic yards = Volume of Discharge Footprint within Corps Jurisdiction
SEGUNDA DESHECHA CANADA
IS A STORM WATER CHANNEL, IS NOT TIDALLY INFLUENCED NOR HAS AN ORDINARY HIGH WATER MARK AND THUS IS OUTSIDE CORPS JURISDICTION
Legend
Mean High Water (+4.7 ft MLLW)
High Tide Line 2018 (+7.08 ft MLLW)
Representative Fill Area for Single Event
Maximum Potential Fill Extent Over Multiple Events
Excavation Area
N
0 50 100
Feet
1:1,200
General Notes
• All sediment shall be spread on adjacent beach above high tide line.
• Tidal elevations are based on NOAA NOS Newport Bay Entrance Water Level Station.
• Tidal lines (intersection of tidal elevations on beach profile) are based on NOAA 2016 survey data, not collected concurrently with aerial imagery.
Maximum Earthwork Quantities per Event
• Excavation Area: 0.08 acres
• Fill/Discharge Area: 0.20 acres
• Excavated Material: 1,000 CY
Huntington Beach
Irvine
Lake Forest
Newport Beach
Mission Viejo
Laguna Niguel
Pacific Ocean
Segunda Deshecha Cañada Outlet (M02)
Ocean Outlets Maintenance Manual

CALIFORNIA COASTAL COMMISSION
SOUTH COAST DISTRICT OFFICE
200 OCEANGATE, 10TH FLOOR
LONG BEACH, CALIFORNIA 90802-4416
PH (562) 590-5071 FAX (562) 590-5084
WWW.COASTAL.CA.GOV

IMMATERIAL AMENDMENT TO COASTAL DEVELOPMENT PERMIT

July 20, 2016
Coastal Development Permit Amendment No. **5-02-031-A5**

Original Permit Number: **5-02-031**

Issued to: **Vincent Gin, OC Public Works**

for: **Implementation of an ocean outlet maintenance program at ocean outlet locations throughout Orange County.**

at: **Outlet Locations throughout Orange County (APN(s)**

…has been amended to include the following change(s):

> **A five (5) year time extension to allow maintenance at six (6) ocean outlets as described in the "Ocean Outlet Maintenance Manual" until July 2021. No changes are proposed to the actual maintenance activities.**

This amendment was determined by the Executive Director to be immaterial, was duly noticed, and no objections were received. Please note that the original permit conditions unaffected by this amendment are still in effect.

Sincerely,

John Ainsworth
Acting Executive Director

Fernie Sy
Coastal Program Analyst

ACKNOWLEDGMENT

I have read and understand the above permit and agree to be bound by the conditions, as amended, of Coastal Development Permit 5-02-031.

Date: July 25 2016 Signature Vincent Gin

Attachment B

United States Department of the Interior
U.S. FISH AND WILDLIFE SERVICE
Ecological Services
Carlsbad Fish and Wildlife Office
2177 Salk Avenue, Suite 250
Carlsbad, California 92008

In Reply Refer To:
FWS-OR-12B0178-18I1622

September 13, 2018
Sent by Email

U.S. Army Corps of Engineers – Los Angeles District
Carlsbad Field Office
5900 La Place Court, Suite 100
Carlsbad, California 92008

Attention: Mr. Eric Sweeney, Regulatory Division

Subject: Informal Section 7 Consultation for the Reauthorization of Regional General Permit 46, Orange County Public Works Ocean Outlets Maintenance Program, Orange County, California

Dear Mr. Sweeney:

This is in response to your email dated May 2, 2018, requesting consultation on the reissuance of Regional General Permit (RGP) 46, the Orange County Public Works Ocean Outlets Maintenance Program (SPL-2010-00868) located within the cities of Huntington Beach, Dana Point, and San Clemente, California, in accordance with section 7 of the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq*.). The U.S. Corps of Engineers (Corps) has requested our concurrence that the proposed action may affect, but is not likely to adversely affect, the federally endangered California least tern [*Sternula antillarum browni* (*Sterna a. b.*); least tern] and federally threatened western snowy plover {Pacific Coast population DPS [*Charadrius nivosus nivosus* (*C. alexandrinus n.*); snowy plover]} and will not adversely modify critical habitat for the snowy plover.

The proposed Orange County Public Works Ocean Outlets Maintenance Program (Ocean Outlets) includes five ocean outlets in Orange County, California: (1) Talbert Outlet in Huntington Beach; (2) Santa Ana River Outlet (SAR outlet) in Newport Beach and Huntington Beach; (3) Salt Creek Outlet in the city of Dana Point; (4) Estrella storm channel outlet (Estrella outlet) and (5) Segunda Deschecha Canãda outlet (SD outlet) in San Clemente; and will consist of recurring maintenance activities and as-needed minor maintenance activities. Maintenance activities at these outlets were originally permitted under Corps File No. SPL-2010-00868 and included North Doheny Creek Outlet in Dana Point. We issued a previous informal consultation on Corps File No. SPL-2010-00868 on October 16, 2012, (FWS-OR-12B0178-12I0599) which included six outlets. The North Doheny Creek Outlet has been removed from this project. The five outlets covered by this consultation will be subject to inspections by Orange County Public Works (OCPW), which will determine when maintenance activities are necessary.

Talbert Outlet is the terminus of Talbert Marsh and is a soft-bottomed trapezoidal channel with rock levees extending to the end of the outlet. The outlet is about 1,000 feet long and 150 feet wide. The Talbert Marsh, a component of the Huntington Beach Wetlands, is located immediately upstream and drains directly into the outlet. Natural tidal events can create shoals within or sand berms across the mouth of the outlet restricting tidal flow between Talbert Marsh and the Pacific Ocean. To ensure tidal exchange into and out of Talbert Marsh and to ensure suitable habitat is sustained within the Least Tern Natural Preserve (Preserve) located between the Talbert Channel and the Santa Ana River, the outlet will be opened within 7 days of any observed blockages. Critical habitat for the snowy plover is located immediately adjacent to the southern rock levee of Talbert Channel and encompasses all of the land between the southern boundary of the Talbert Outlet to the northern rock levee of the SAR Outlet.

The SAR Outlet is the terminus of the Santa Ana River, the largest river in Southern California. The outlet is soft-bottomed and has three rock levees extending to the end of the outlet. The outlet is about 1,000 feet long and 450 feet wide. Natural tidal events can create shoals within the outlet, periodically restricting tidal exchange and flows out of the Santa Ana River and into the Pacific Ocean. In addition, rock material from the outlet's levees occasionally becomes displaced due to heavy flows. Critical habitat for the snowy plover is located immediately adjacent to the northern rock levee of the SAR Outlet and encompasses all of the land between the northern boundary of the SAR Outlet to the southern rock levee of Talbert Outlet.

Salt Creek receives freshwater from natural and urban sources, which is conveyed through a reinforced concrete box culvert upstream from the outlet. The outlet consists of a concrete apron and rock revetment and is approximately 100 feet long by 20 feet wide. Natural tidal actions move sand, creating a sand berm that forms a barrier limiting or preventing the freshwater flows from draining into the ocean. The freshwater flows then back up forming a brackish pool adjacent to the outlet. In addition, rock material from the outlet apron occasionally becomes displaced due to heavy storm flows.

Estrella Outlet is the terminus of Estrella Storm Channel, which conveys freshwater storm flows from primarily urban sources through a reinforced concrete box culvert. The outlet is approximately 10 feet wide with a flap gate at the end of the structure. Natural tidal events can inundate Estrella Outlet and move sand, blocking the flap gate and limiting or preventing freshwater flows from draining into the ocean.

SD Outlet is the terminus of the Segunda Deschecha Canãda, which conveys freshwater storm flows from primarily urban sources through a reinforced concrete box culvert. The outlet is concrete with concrete wings and a rock revetment. Sediment within the outlet periodically restricts tidal flow and prevents freshwater flows from draining into the ocean. In addition, rock material from the revetment occasionally becomes displaced due to heavy flows.

Semi-Annual Maintenance

Semi-annual maintenance will occur two times per year, an autumn event (prior to the wet season) and a spring event (prior to the summer recreational season), except at the SAR Outlet which will occur up to five times per year.

Talbert Outlet

Semi-annual maintenance will include excavation of about 15,000 cubic yards of sediment from an approximately 3.51-acre area within the outlet channel to maintain an approximately 5-foot cut depth. Excavated sediment will be relocated and then graded to allow for recreational use within an approximately 3.12-acre area above the extreme high tide (Figure 1) using heavy machinery. Each maintenance event will occur over an estimated 2 to 3 week period.

Salt Creek Outlet

Semi-annual maintenance will include excavation of about 1,000 cubic yards of sediment from an approximately 0.23-acre area within the outlet channel to re-establish the 4-foot design depth. Heavy machinery will be used to relocate excavated sediment over an approximately 0.20-acre area of the adjacent beach (Figure 2), of which 0.04 acre is below the extreme high tide line. Boulders that have been dislodged from the rock apron during high flows will be retrieved and replaced, and any scour holes will be restored with rock protection. Each maintenance event will occur over an estimated 3 day to 2 week period.

Estrella Outlet

Semi-annual maintenance will include excavation of about 5,000 cubic yards of sediment from an approximately 0.06-acre area from within the outlet channel to re-establish the 4-foot design depth. Excavated sediment will be relocated over an approximately 0.12-acre area of the adjacent beach (Figure 3) above the extreme high tide line using heavy machinery. During the spring maintenance event, the channel will be inspected to determine if the flow discharge has meandered outside of its direct path between the concrete box and the ocean. If the channel has meandered, then a direct path between the concrete box and the ocean will be reestablished to prepare the beach for public recreation. Each maintenance event will occur over an about 4 day to 2 week period.

Segunda Deschecha Canãda Outlet

Semi-annual maintenance will include excavation of about 1,000 cubic yards of sediment from an approximately 0.08-acre area from within the outlet channel. Heavy machinery will be used to relocate excavated sediment over an approximately 0.20-acre area of the adjacent beach (Figure 4) above the extreme high tide line. During the spring maintenance event, the channel will be inspected to determine if the flow discharge has meandered outside of its direct path between the concrete box and the ocean. If the channel has meandered, then a direct path between the concrete box and the ocean will be reestablished to prepare the beach for public recreation. Each maintenance event will occur over an estimated 1 to 2 week period.

Santa Ana River

Maintenance will consist of up to five annual events and will excavate about 70,000 cubic yards of sediment from an approximately 6.36-acre area within and at the mouth of the outlet channel per maintenance event. Heavy machinery will be used to place and grade excavated sediment to allow for recreational use within an 11.22-acre area, of which about 6.39 acres are below the extreme high tide line located south of the outlet and extending from Huntington Beach to Newport Beach (Figure 5 through Figure 8). Boulders and rock riprap that have been dislodged from the revetment during high flows will be retrieved and replaced. Each maintenance event will occur over an estimated 1 to 9 week period. The annual maximum excavation volume from all maintenance events at the SAR outlet will not exceed 200,000 cubic yards.

Minor As-Needed Maintenance

OCPW will conduct periodic inspections of the outlets to determine what minor, as-needed maintenance is necessary.

Talbert Outlet

At Talbert Outlet, minor maintenance activities will include removing any shoal blocking tidal flow into Talbert Marsh within 7 days of observation of the blockage. Heavy machinery will be used to remove any shoal blocking tidal flow into Talbert Marsh. Excavated sediment will be relocated above the extreme high tide line and graded to allow for recreational activities (Figure 1).

Salt Creek Outlet

At Salt Creek Outlet, minor maintenance activities will only occur to re-establish outlet channel flow when ponding occurs. Maintenance activities to re-establish channel flow will include heavy machinery use to excavate a direct path between the outlet and the ocean. Boulders that have been dislodged from the rock slope protection during high flows will be retrieved and replaced during these minor maintenance events.

Estrella Outlet

Heavy machinery will be used to excavate sediment within the channel when the flap gate is blocked or if the channel has meandered, then a direct path between the concrete box and the ocean will be reestablished. The storm drain flap gate will be repaired or replaced as necessary.

Segunda Deschecha Canãda Outlet

Minor maintenance activities will only occur to re-establish channel flow and will include heavy machinery use to excavate a direct path between the outlet and the ocean. Boulders that have been dislodged from the rock slope protection during high flows will be retrieved and replaced during these minor maintenance events.

Santa Ana River Outlet

At the SAR Outlet, minor maintenance activities will include excavation of sediment to re-establish the outlet's shape and alignment using heavy machinery. Excavated sediment will be relocated below and above the extreme high tide line and graded to allow for recreational activities (Figures 5 through 8). Boulders and rock that have been dislodged from the rock jetties during high flows will be retrieved and replaced during these minor maintenance events.

The Corps will incorporate the following Conservation Measures (CM) into the project to avoid and minimize adverse effects to snowy plovers and least terns and avoid and minimize adverse modification to snowy plover critical habitat:

CM 1. Prior to initiating annual maintenance activities, OCPW will update their maintenance plan for annual maintenance activities to incorporate a description of the anticipated maintenance activities, conservation measures established during this consultation, and maps clearly showing avoidance areas including snowy plover wintering roost areas (i.e., Avian Conservation Areas)[1] (Figures 9, 11, 12, and 14) and critical habitat (Figures 10 and 13). A copy of the updated Maintenance Plan will be provided to the Carlsbad Fish and Wildlife Office (CFWO).

CM 2. The project work area will be limited to the sites identified in the project description of the initiation letter for RPG 46 Notification (SPL-2010-00868) and Figures 1 through 8 below. Access to the project site will use existing roads and access points to the greatest extent practical. Parking, driving, lay-down, stockpiling, and vehicle and equipment storage will be limited to developed areas and the designated staging areas. No off-road vehicle use will be permitted in beach areas beyond the project footprints as delineated in Figures 1 through 8. Heavy machinery will use surface streets to transport excavated sediments to the greatest extent possible.

CM 3. If more than 2 minor, as-needed blockage removal events are necessary within a 6 month period at any of the above outlets, then OCPW will coordinate with the CFWO to determine if additional conservation measures are needed to avoid adverse effects to listed species and their critical habitat.

CM 4. The project boundary will be clearly marked with flagging, fencing, or signposts to minimize the likelihood of unanticipated impacts to listed species and their habitats. All project-related activities will occur within the designated project boundaries.

CM 5. A biological monitor[2] familiar with snowy plovers and least terns will be responsible for overseeing construction to ensure compliance with the conservation measures

[1] The Avian Conservation Areas referred to in this consultation are equivalent to the Special Protection Zones depicted in Figures 9, 11, 12, and 14

[2] The designated biological monitor(s) for this measure will be a trained ornithologist with at least 40 hours of observation in the field for the snowy plover and least tern and documented experience of at least 20 hours of locating and monitoring nests of the snowy plover and least tern.

and preventing unanticipated impacts to federally listed species. The biological monitor will be on site during pre-project flagging, heavy machinery use, and other project activities with the potential to impact federally listed species.

CM 6. An education program will be conducted by the biological monitor. It will be conducted during all project phases and will cover the potential impacts to federally listed species; the requirements and boundaries of the project; the importance of complying with avoidance, minimization, and compensation measures; and problem reporting and resolution methods.

CM 7. The project will have a clearly defined footprint on project reference maps and in the field, and the biological monitor will ensure that all project equipment remains within the limits of the project footprint for the duration of the project.

CM 8. Workers will be prohibited from bringing domestic pets to project sites to ensure that domestic pets do not disturb or depredate wildlife in adjacent native habitats.

CM 9. Excavated sediment will be placed above the high tide line as identified in the project footprints and as modified in CM 17 and CM 18. Excavated sediment will not be placed within the swash zone (i.e., the area between the high tide line and the water line) of the beach except during SAR maintenance events, during which excavated sediment may be placed along the Newport Beach shoreline out to 0 foot Mean Lower Low Water in areas where beach narrowing is identified as a problem.

CM 10. Within 30 days of completing any maintenance activities, a monitoring report will be submitted to the CFWO documenting that maintenance has been completed. This report will document the length of time that maintenance activities were conducted, a general description of the nature of the maintenance activities, number and location of least terns or snowy plovers within 500 feet of the project footprint, and observed effect of construction activities on least terns or snowy plovers.

CM 11. All maintenance activities will be limited to the minimal amount of excavation and grading as necessary to re-establish continual channel flow.

CM 12. Contaminant levels within excavated sediments will be monitored as per the water quality monitoring measures within the Maintenance Plan and in accordance with the State Water Quality Control Board (SWQCB) permit requirements throughout the life of the project.

CM 13. Vehicles accessing the beach will travel at speeds no greater than 5 mph when within 500 feet of occupied snowy plover and least tern habitat (i.e., critical habitat, roosting sites, and the Preserve). In areas greater than 500 feet from occupied habitat, vehicles will travel at speeds of no greater than 10 mph.

Measures Specific to the Snowy Plover

CM 14. To the maximum extent practical, project-related activities (e.g., use of heavy machinery, installation of fencing, vehicle use on the beach) that occur within 500 feet of occupied snowy plover habitat (Salt Creek, Talbert, and Santa Ana River outlets) will take place outside of the snowy plover breeding season (March 1 to August 31).

CM 15. If avoiding the snowy plover breeding season at specific locations is not possible, then the following additional measures will be employed:

a. Maintenance Activities at Salt Creek, Talbert and Santa Ana River Outlets

i. The biological monitor will conduct pre-construction surveys for snowy plovers and their nests within 500 feet of the proposed project footprint which includes the areas identified for receiving fill and through which vehicles will travel.

ii. If an active snowy plover nest [scrape containing eggs or empty scrapes with snowy plovers actively exhibiting breeding behaviors (e.g., scraping, pebble tossing, territorial displays or calls, false brooding, etc.)] occurs within 500 feet of the proposed project area, no project work will begin and the biological monitor will report the nest to the CFWO. The OCPW will coordinate with the CFWO to evaluate if reinitiation of consultation is necessary. No maintenance activities will occur until the CFWO has been contacted and coordinated with.

iii. If snowy plovers are observed within 500 feet of the project footprint and no breeding behavior activity is observed, the biological monitor will be onsite at all times during any maintenance activities that require mechanized equipment. If snowy plovers are observed within the project footprint, the biological monitor may slowly walk towards the snowy plovers, allowing the snowy plovers to move away from the project footprint, prior to vehicles and heavy machinery accessing the beach. The biological monitor will guide the snowy plovers at least 150 feet from the project footprint. The biological monitor will have the ability to halt maintenance activities, if necessary, to avoid unanticipated impacts, including significant disturbance, to the snowy plover.

b. Maintenance Activities at Talbert Outlet and SAR Outlet

i. In addition to CM 5a above, OCPW will also coordinate with California State Parks and the City of Newport Beach to discuss if any snowy plovers exhibiting breeding behaviors or nests have been documented during the current breeding within 500 feet of the project footprint,

including the areas identified for receiving excavated sediment and through which vehicles will travel (Figures 1 and 5 through 8).

ii. If a nest or snowy plovers exhibiting breeding behaviors are identified, OCPW will obtain a map identifying the location of any snowy plover territories and nests, and will obtain data on the date the nest was discovered, the number of eggs that were present at time of nest discovery, and the estimated hatch date if it is known. If chicks are present, the OCPW will obtain the hatch date, the number of adults and chicks present, and a map of the nest location and area currently being used by the adult and brood. The applicant will provide this information to and will coordinate with the CFWO to determine if reinitiation of consultation is necessary prior to any outlet maintenance activities occurring.

CM 16. For maintenance activities at outlet locations that occur within 500 feet of occupied snowy plover habitat (Salt Creek, Talbert, and SAR outlets) during the non-breeding season (September 1 to February 28), the biological monitor will conduct pre-construction surveys for snowy plovers in and within 500 feet of the proposed maintenance footprint.

a. If snowy plovers are observed within 500 feet of the proposed construction footprint, the biological monitor will be onsite at all times during any maintenance activities that require mechanized equipment. If snowy plovers are observed within the project footprint, the biological monitor may slowly walk towards the snowy plovers, allowing the snowy plovers to move away from the project footprint, prior to vehicles and heavy machinery accessing the beach. The biological monitor will guide the snowy plovers at least 150 feet from the project footprint. The biological monitor will have the ability to halt maintenance activities, if necessary, to avoid unanticipated impacts, including significant disturbance, to the snowy plover.

CM 17. No excavated sediment will be placed within beach areas adjacent to the Preserve during the breeding season without coordination with and approval from California State Parks.

CM 18. No excavated sediment will be placed within 500 feet of or in designated critical habitat or Avian Conservation Areas for the snowy plover located on Balboa Peninsula or located between Talbert Channel Outlet (Figures 9 and 13) and the SAR Outlet at any time without prior coordination with and approval from the CFWO.

CM 19. Excavated sediment from the Santa Ana River that is placed within the swash zone of the beach to address beach narrowing will not be placed in long unbroken linear lines greater than 500 feet. To minimize the impact of excavated sand covering the

invertebrate community, breaks of at least 100 feet will be maintained for every 500 feet of placed sediment.

a. The exception to this will be at the groin field on Newport Beach. Within the groin field, placement will occur in an unbroken reach of 800 feet between the two groins. Placement will occur only at every other groin-to-groin area in a given activity period such that 800 feet of no sand placement will abut each side of the placement area.

Measures Specific to the Least Tern

CM 20. To the maximum extent practical, project-related activities (e.g., use of heavy machinery, installation of fencing, vehicle use on the beach) that occur within 500 feet of occupied least tern habitat (Salt Creek, Talbert, and SAR outlets) will take place outside of the least tern breeding season (April 1 to September 15).

CM 21. If avoiding the least tern breeding season at specific locations is not possible, then the following additional measures will be employed:

a. The biological monitor will conduct pre-construction surveys for least terns and their nests in and within 500 feet of the proposed project footprint.

b. If an active least tern nest [scrape containing eggs or empty scrapes with least terns actively exhibiting breeding behaviors (e.g., scraping, territorial displays or calls, fish carrying, etc.)] occurs within 500 feet of the proposed project area, all project work will stop and the biological monitor will report the nest to the CFWO. The Applicant will coordinate with the CFWO to evaluate if reinitiation of consultation is necessary. No maintenance activities will occur until the CFWO has been contacted and coordinated with.

c. If least terns are observed in or within 500 feet of the proposed construction footprint and no breeding behavior activity is observed, the biological monitor will be onsite at all times during any maintenance activities that require mechanized equipment. If least terns are observed within the project footprint, the biological monitor may slowly walk towards the least terns, allowing the least terns to move away from the project footprint prior to vehicles and heavy machinery accessing the beach. The biological monitor will have the ability to halt maintenance activities, if necessary, to avoid unanticipated impacts, including significant disturbance, to the least tern.

Between 2005 and 2016, an average of 379 pairs (Appendix, Table 1A) of least terns nested at the Preserve. Occasionally, least tern nesting has been documented outside of the Preserve in the adjacent beach areas between Talbert and SAR outlets; therefore it is possible, but unlikely, that least terns could establish a territory in adjacent habitat or at other suitable habitat within the project footprint prior to or during project implementation.

Snowy plovers nested on Huntington State Beach in 2017 and at the Preserve on Huntington Beach in 2018. In addition, snowy plovers nested at Balboa Beach in 2008, 2009, and 2013 (Ryan *et al*. 2017), and in 2010, 2011, and 2016 plovers were observed on Balboa Beach during the range-wide breeding season survey (Service 2017a), although no nests were documented. It is possible that snowy plovers could establish a territory in suitable habitat within the project footprint or in adjacent suitable habitat prior to or during project implementation. Snowy plovers also regularly use Orange County beaches as migration and wintering habitat. Huntington State Beach, Balboa Beach, and Salt Creek Beach (also known as Monarch Beach) (Appendix, Table 2A) are consistently identified within the top five beaches as supporting the highest number of wintering snowy plovers in Orange County.

Analysis of Potential Effects to California Least Tern and Western Snowy Plover (Combined)

Breeding Season Disturbance

Project activities conducted during the least tern and snowy plover breeding seasons have the potential to disrupt least tern and snowy plover feeding, breeding, and roosting in adjacent habitat. Noise, vibration, and movement associated with the use of mechanized equipment also have the potential to disrupt least tern and snowy plover behaviors in adjacent habitat, discouraging least terns and snowy plovers from roosting and foraging in the project area and by startling birds and masking intraspecific communication (e.g., see Dooling and Popper 2007 for a discussion of observed effects of highway noise on birds). Therefore, maintenance activities within 500 feet of occupied habitat will occur outside of the least tern and snowy plover breeding seasons to the maximum extent feasible. If the breeding seasons cannot be avoided, focused surveys will be conducted in least tern and snowy plover habitat prior to initiation of project activities, and measures (CM 11, CM 13, CM 14, CM 17, and CM 21) will be implemented to avoid impacts to nests and young or substantial disturbance of breeding least tern and snowy plover pairs that could cause the failure of a nest. With the proposed measures, potential effects of project-related disturbance on least tern and snowy plover survival and reproduction during the breeding season is anticipated to be insignificant (i.e., unable to be meaningfully measured, detected, or evaluated).

Non-Breeding Season Disturbance

Project activities (pre-project surveys, biological monitoring, use of heavy equipment, and placement of excavated sediment) conducted outside of the least tern breeding season may temporarily disturb late or early migrating, foraging, and roosting least terns. Project activities conducted outside of the snowy plover breeding season may temporarily disturb migrating and wintering (i.e., foraging and roosting during the non-breeding season) snowy plovers on adjacent beaches. Therefore, focused surveys will be conducted within 500 feet of occupied snowy plover habitat prior to initiation of project activities, and measures (CM 16) will be implemented to avoid impacts to migrating and wintering snowy plovers. With the proposed measures, potential effects of the project-related disturbance on least tern and snowy plover survival during the non-breeding season are anticipated to be insignificant.

Surveys

Pre-project survey activities conducted during the breeding season have the potential to impact least terns and snowy plovers by disturbing foraging and roosting individuals or nesting pairs in adjacent habitat. Although adult least terns and snowy plovers may be temporarily disturbed or displaced, surveys are likely to occur for a short period of time and are not likely to permanently displace least terns or snowy plovers. Furthermore, pre-project surveys will be conducted by individuals familiar with least tern and snowy plover biology and ecology and have field experience surveying for least terns, snowy plovers, and nests and conducting monitoring activities for least terns and snowy plovers. Therefore, with implementation of the above conservation measures (CM 5 and CM 21), pre-project surveys may result in minor disturbance to least terns and snowy plovers, but this disturbance is anticipated to have an insignificant effect on least tern and snowy plover survival and reproduction.

Flushing and Vehicle Strikes

Roosting least terns and snowy plovers will be purposefully flushed (i.e., to cause a bird to move or fly away from an area) by the biological monitor from within the project footprint to avoid bird strikes with vehicles and equipment operating within and around the outlets. Intentional flushing of least terns and snowy plovers from within the project footprint to prevent bird strikes with project equipment will be conducted by individuals familiar with least tern and snowy plover biology and ecology and who have field experience conducting monitoring activities for least terns and snowy plovers. Therefore, with implementation of the above conservation measures, the proposed flushing may result in minor disturbance to least terns and snowy plovers in adjacent habitat, but this disturbance is anticipated to have an insignificant effect on least tern and snowy plover survival and reproduction. With the proposed monitoring and flushing, the potential for vehicle strikes is discountable.

Analysis of Potential Effects Specific to California Least Tern

Increased Turbidity in Foraging Habitat

Sediment excavation activities at Talbert and SAR outlets could disrupt or reduce least tern foraging success in the vicinity of the project sites as a result of sediment removal-related increased turbidity levels and increased noise and movement. Excavation of sediment is likely to create a minor turbidity plume that will decrease the visibility of prey within the plume. However, we anticipate that because excavation activities will be primarily restricted to areas within the mouth of the channel outlets where the water is very shallow and least terns are less likely to be plunge diving for prey items, few least terns will be foraging in the project footprint and exposed to decreased foraging success. Additionally, several hundred acres of shallow water and nearshore water foraging habitat that will be available for use by least terns within Talbert Marsh and in the Pacific Ocean, where no project activities are proposed. With incorporation of the proposed measures (CM 9 and CM 11), we anticipate that sufficient foraging resources will be available for least terns, and potential effects to least tern survival and productivity will be insignificant.

Contaminant Exposure

Sediment removal conducted in areas known to support least tern foraging could expose least terns to harmful levels of contaminants if contaminants are present in disturbed sediment. In the absence of specific information regarding contaminant-related effects to least terns, we assume water quality monitoring established in SWQCB permit conditions and the Management Plan will be sufficient to minimize the potential for adverse effects to least terns from exposure to contaminants. With incorporation of the proposed measure (CM 18), we anticipate that potential exposure to contaminants from disturbed sediment and their potential effects to least tern survival and productivity will be insignificant.

Analysis of Potential Effects Specific to Western Snowy Plover

Placement of Sand on Foraging Habitat

Placement of excavated materials will likely disrupt or reduce snowy plover foraging success in the vicinity of the project sites as a result of degradation of or temporary removal of suitable foraging habitat due to reduced prey availability. The placement of excavated materials onto sandy beach areas can lead to reduced prey abundance through burying intertidal invertebrates by heavy layers of sand resulting in asphyxiation (Peterson *et al*. 2000); compacting sediments and crushing invertebrates (Manning *et al*. 2014) as heavy machinery work in and travel along sandy beach areas; altering sediment characteristics that result in a change in the rate of invertebrate recolonization and invertebrate community composition (Peterson *et al*. 2000; Wooldridge *et al*. 2016) and by burying surf-deposited debris including driftwood and kelp that provide shelter to, supports, or attracts small invertebrates. A reduction in invertebrate populations within foraging habitat can cause decreased use of beaches by shorebirds (Peterson *et al*. 2006; Wooldridge *et al*. 2016) as these areas no longer support their foraging needs. Conservation measures will be implemented to minimize the impact to the invertebrate community by avoiding placement of sediment in the swash zone within much of the project footprint (CM 9), providing 100 foot long breaks between long linear placement of sediment in order to support recruitment of invertebrates from adjacent sediment free refugia zones (CM 19), and minimizing the extent of compaction and crushing of the invertebrate community within the project areas by using surface streets to transport excavated sediments to the greatest extent possible, primarily placing sediment above the high tide line, and limiting the amount of excavation and grading to re-establish continual channel flow (CM 2, CM 9, and CM 11). Additionally, several hundred acres of intertidal foraging habitat will be available for use by snowy plovers along the Pacific Ocean, where no project activities are proposed. With incorporation of these proposed measures, we anticipate that sufficient foraging resources will be available for snowy plovers, and potential effects to snowy plover survival and productivity due to reduced prey abundance will be insignificant.

Contaminant Exposure

Sediment removal conducted in areas known to support snowy plovers foraging could expose snowy plovers terns to harmful levels of contaminants if contaminants are present in disturbed sediment, disturbed sediment washes up on shore where snowy plovers forage, or is present in

high levels in snowy plover prey items. In the absence of specific information regarding contaminant-related effects to snowy plovers, we assume water quality monitoring established in SWQCB permit conditions and the Management Plan will be sufficient to minimize the potential for adverse effects to snowy plovers from exposure to contaminants. With incorporation of the proposed measure (CM 18), we anticipate that potential exposure to contaminants from disturbed sediment and their potential effects to snowy plovers survival and productivity will be insignificant.

Based on the above analysis, the Service concurs with your determination that the proposed action may affect, but is not likely to adversely affect, the least tern and snowy plover. With this determination, the interagency consultation requirements of section 7 of the Act have been satisfied. This determination shall be reconsidered if: (1) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not previously considered, (2) this action is subsequently modified in a manner that was not considered in this assessment, or (3) a new species is listed or critical habitat designated that may be affected by the action.

If you have any questions regarding this consultation, please contact Katy Kughen at 760-431-9440, extension 201.

Sincerely,

JONATHAN SNYDER

Digitally signed by JONATHAN SNYDER
Date: 2018.09.12 19:52:20 -07'00'

for Karen A. Goebel
Assistant Field Supervisor

LITERATURE CITED

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Ryan, T. 2017. Email Correspondence to Katy Kughen, USFWS, Carlsbad, California. Dated: May 21, 2017. Subject: Snowy Plover Nest on Huntington State Beach.

Snyder, J. 2018. Email Correspondence to Katy Kughen, USFWS,Carlsbad, California. Dated: May 2, 2018. Subject: Fwd: [EXTERNAL] Informal Consultation Request for RGP 46 - Orange County Public Works Ocean Outlets Maintenance Project (SPL-2010-00868)

Figure 1. Project Footprint for Talbert Outlet (Snyder 2018, pers.comm.)

Figure 2. Project Footprint for Salt Creek Outlet (Snyder 2018, pers.comm.)

Figure 3. Project Footprint for Estrella Outlet (Snyder2018, pers.comm.)

Figure 4. Project Footprint for Segunda Deschecha Canãda Outlet (Snyder 2018, pers.comm.)

Figure 5. Project Footprint for Santa Ana River Outlet (Snyder 2018, pers.comm.)

Figure 6. Project Footprint for Santa Ana River Outlet (Snyder 2018, pers.comm.)

Figure 7. Project Footprint for Santa Ana River Outlet (Snyder 2018, pers.comm.)

Figure 8. Project Footprint for Santa Ana River Outlet (Snyder 2018, pers.comm.)

Figure 9. Huntington Beach Snowy Plover Roost Site[3] (Ryan *et al*. 2017)

[3] The Avian Conservation Areas referred to in this consultation are equivalent to the Special Protection Zones in Figures 9, 11, 12, and 14. The Avian Conservation Areas are defined based on multiple years of observed snowy plover roosting locations, which are identified by colored polygons.

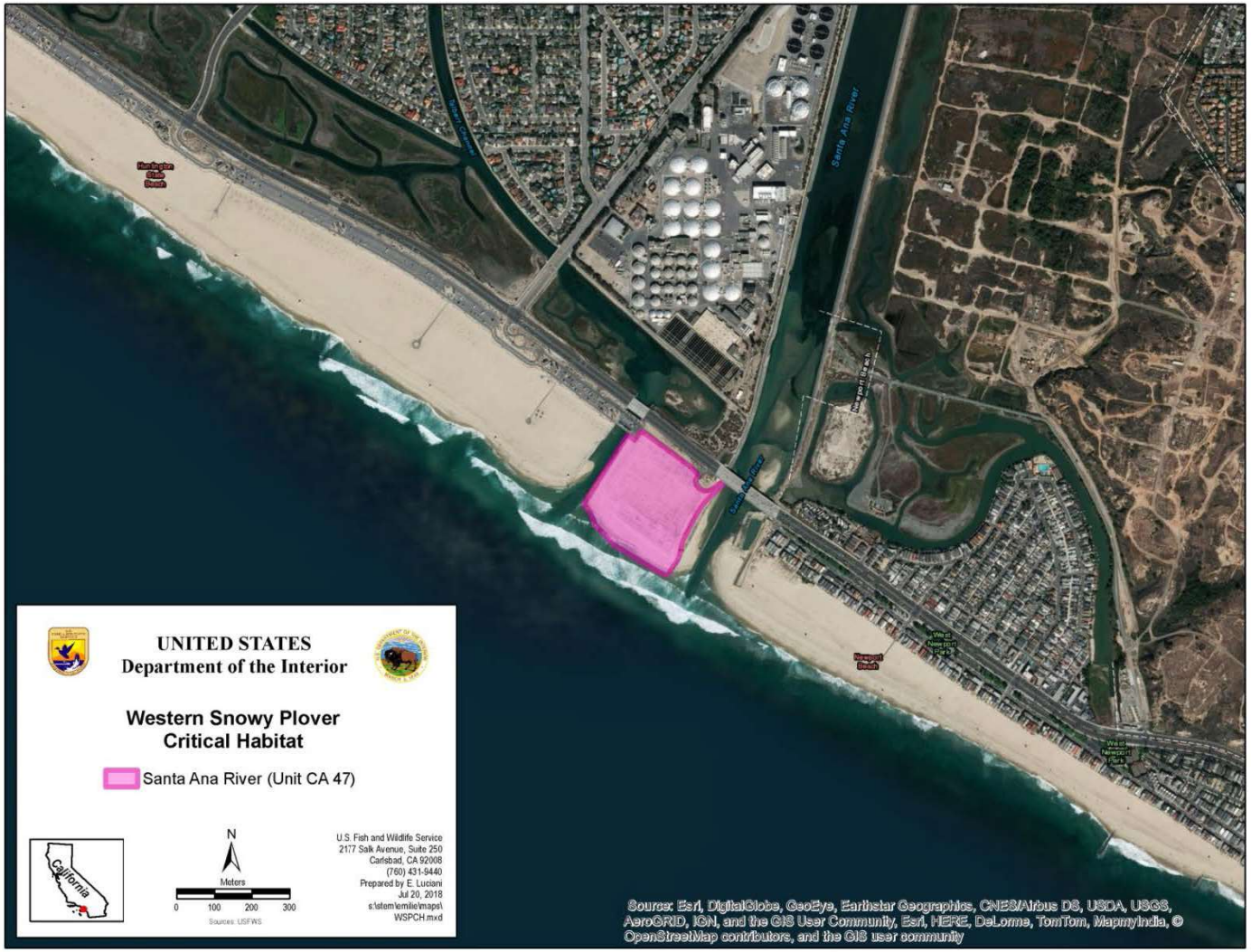

Figure 10. Critical Habitat for the Mouth of the Santa Ana River Unit CA-47

Figure 11. Balboa Beach Snowy Plover Roost Site (Ryan *et al*. 2017)

Figure 12. Balboa Beach Snowy Plover Roost Site (Ryan *et al*. 2017)

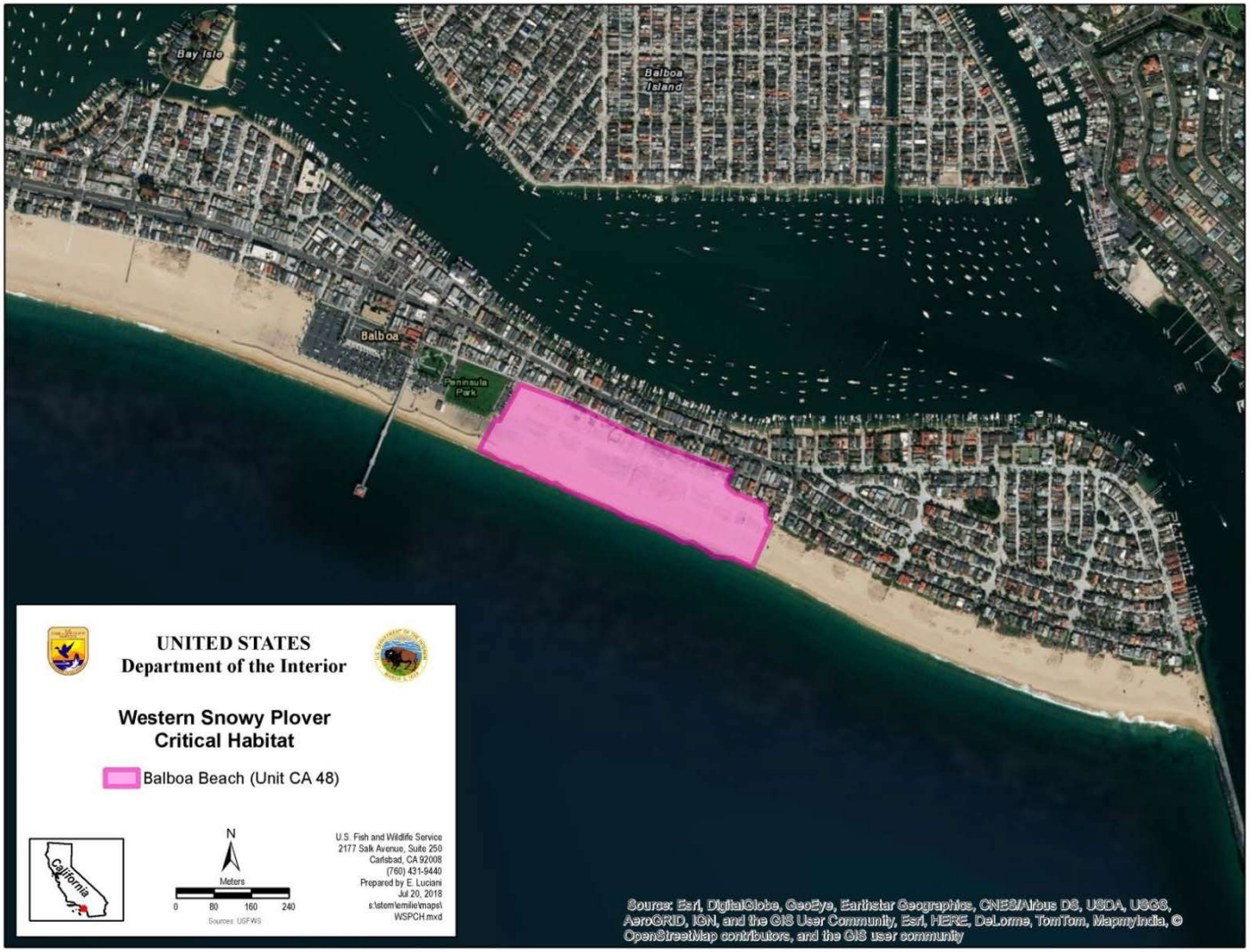

Figure 13. Critical Habitat for Balboa Beach Unit CA-48

Figure 14. Salt Creek Beach Snowy Plover Roost Site (Ryan *et al*. 2017)

APPENDIX

Biological Baseline for the Reauthorization of Regional General Permit 46 Orange County Public Works Ocean Outlets Maintenenace Program

California Least Terns

Huntington State Beach and Balboa Beach

Least Terns are known to use habitat at Huntington State Beach during the breeding season and during migration. The Talbert Outlet and the SAR outlet are located immediately adjacent (north of and south of) the Preserve. The Preserve is one of five locations in Orange County where least terns breed (Table 1A) and is one of the few historical sites where least terns have continued to breed, likely since early 1900's. In 1963, a small area immediately north of Talbert Channel was fenced for the first time through the efforts of the Sea and Sage Audubon in response to increased levels of disturbance to the nesting colony of least terns from beach activities. Fencing of the nesting site north of Talbert Channel continued until the Preserve site was modified as part of the Santa Ana River Flood Control Project (1-1-80-F-75, dated October 1, 1980), which widened the mouth of the Santa Ana River and relocated the mouth of Talbert Channel. Widening the Santa Ana River mouth and realigning Talbert Channel removed about 1.5 acres from the south end of the fenced 4.5-acre least tern nesting site. The impacted habitat was replaced by expanding the fenced nesting area 1.5 acres to the north. The nesting site was also shifted westward towards the coast during the non-breeding season prior to the realignment of Talbert Outlet and the Santa Ana River mouth. The Preserve has been monitored annually since 1969. The number of breeding pairs fluctuates between years as a result of various factors, including food availability and predation pressure. Least terns also use areas within the Preserve and adjacent beaches for staging during migration and as temporary roosting areas.

Least terns have not been documented nesting on Balboa Beach; however, suitable breeding habitat exists south of the Balboa Pier where wide sandy beaches and areas of remnant coast dune habitat with native and non-native vegetation are present. Least terns also nest within Upper Newport Bay about 4 miles northeast and inland of Balboa Beach. Least terns are known to use areas along Huntington State Beach and Balboa Beach for staging during migration and as temporary roosting areas.

Salt Creek Beach

Least terns have not been regularly surveyed for at Salt Creek; however, least terns likely use areas at or adjacent to Salt Creek Outlet, for roosting and staging during migration. Least terns are not known to breed at this location.

San Clemente City Beach

Estrella and SD Outlets are located on San Clemente City Beach and have not regularly been surveyed for least terns during the breeding season. Least terns are unlikely to use areas at or adjacent to SD and Estrella Outlets as the beach in both of these areas is very narrow with much

of the beach under water at high tide. South of the SD Outlet, a strip of sandy beach, varying between about 30 and 60 feet wide, parallels the rock revetment wall along the railroad and north of the outlet. The beach is armored at the front of a long line of houses, with no beach present at high tide. At Estrella outlet, the sandy beach area is bound by a line of houses north and south of the outlet. The mouth of the outlet is located about 70 feet from the developed housing; however, the sandy beach area varies from about 30 feet to about 100 feet wide at high tide throughout the year. Much of the available sandy beach areas are within private property lines. Although least terns could use the beaches at these outlets at low tide for roosting, it is unlikely that least terns regularly utilize these beaches as roosting habitat. No suitable breeding habitat is available within or adjacent to the SD and Estrella Outlets. Because there is no suitable breeding habitat and only highly degraded roosting habitat due to narrow beaches immediately adjacent to developed areas is present, we do not consider the areas within the footprints for the Estrella and SD Outlets to be occupied least tern habitat.

Table 1A. Number of nesting least tern pairs within the Preserve from 2005 to 2016[4]

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Min Pair	212	420	445	344	413	349	515	422	303	407	411	304
Max Pair	339	491	445	411	413	405	707	534	331	499	507	337
# Nests	339	512	485	454	434	433	712	542	347	516	524	348

Western Snowy Plovers

Huntington State Beach

Snowy plovers regularly breed at only one location in Orange County, the Bolsa Chica Ecological Reserve, and breed irregularly at a small number of sites, including Huntington State Beach and Balboa Beach. Breeding snowy plovers were documented nesting within the fenced Preserve and immediately adjacent but outside of the chain link fencing in 2018 (2 nests successfully fledged 4 chicks (Ryan 2017, pers comm.). In 2017, a snowy plover nest was identified on Huntington State Beach about one quarter mile north of the Preserve near Lifeguard Tower 5. This nesting attempt was unsuccessful but shows that snowy plovers are using suitable breeding habitat on Orange County beaches outside of the known breeding areas. Previous documented nesting attempts occurred in 1993, when a nest was established and hatched within the fenced Preserve area; the adult and brood left the fenced area, abut no chicks were documented as having fledged from the brood. Prior to the 1993 nest, the last documented nest was in the 1950's (Pavelka and Stadtlander 1993).

Non-breeding snowy plovers regularly use Huntington State Beach (Table 2A). Individuals that have successfully or unsuccessfully nested, are unpaired, or are not fully mature appear to use these beaches as roosting, foraging, and migration habitat from April to August and as migration and wintering habitat from September to March. During range-wide wintering surveys (Service 2007, Service 2017b, and Service 2018) conducted from 2005 to 2018, an average of 22 snowy

[4] Least tern pair numbers are the maximum and minimum number reported to the State of California.

plovers (high of 81 and a low of 12) were documented using habitat on Huntington State Beach. Monthly surveys in Orange County during the non-breeding season have identified a number of roosting sites (Figure 9) that provide important roosting and migration habitat based on regular use of these areas by snowy plovers. In addition to the roost site identified in Figure 9, snowy plovers regularly roost west of the Preserve fencing and the mouths of the Santa Ana River and Talbert Outlet. In 2012, 25 acres of snowy plover critical habitat was designated at the mouth of the Santa Ana River (Unit CA 47) for the snowy plover (Service 2012; Figure 10). The unit provides habitat to support breeding plovers and helps to facilitate movement of individuals between otherwise widely separated units.

Balboa Beach

Breeding snowy plovers have been documented on Balboa Beach in 2008, 2009, and 2013 (Ryan *et al*. 2017). In 2010, 2011, and 2016, plovers were observed on Balboa Beach during the range-wide breeding season survey (Service 2017a) although no nests were documented. Balboa Beach has wide sandy beaches and areas of remnant coast dune habitat with native and non-native vegetation. The City of Newport Beach is working on development of a snowy plover management plan to address potential protective measures intended to facilitate conservation of the snowy plover.

Non-breeding snowy plovers regularly use Balboa Beach (Table 2A). Individuals that have successfully or unsuccessfully nested, are unpaired, or are not fully mature appear to use these beaches as roosting, foraging, and migration habitat from April to August and as migration and wintering habitat from September to March. During the range-wide wintering surveys conducted from 2005 to 2018, an average of 45 snowy plovers (high of 125 and a low of 9) were documented using habitat on Balboa Beach. Monthly surveys in Orange County during the non-breeding season have identified a number of roosting sites (Figures 11 and 12) that provide important roosting and migration habitat based on regular use of these areas by snowy plovers. Balboa Beach supports the largest number of wintering snowy plovers in Orange County. In 2012, 19 acres of critical habitat was designated at Balboa Beach (Unit CA 48) for the snowy plover (Service 2012; Figure 13). This unit was occupied at the time of listing of the snowy plover and supported two breeding adults in 2009 and three breeding adults in 2010. This critical habitat unit supports breeding and wintering snowy plovers and contains the physical and biological features essential to the conservation of the species, including a wide sandy beach with occasional surf-cast wrack supporting small invertebrates.

Salt Creek Beach

Breeding snowy plovers have not been documented at Salt Creek Beach. Non-breeding snowy plovers regularly use Salt Creek Beach (Table 2A). Individuals that have successfully or unsuccessfully nested, are unpaired, or are not fully mature appear to use these beaches as roosting, foraging, and migration habitat from April to August and as migration and wintering habitat from September to March. During the range-wide wintering surveys conducted from 2004 to 2018, an average of 24 snowy plovers (high of 48 and a low of 16) were documented using habitat on Salt Creek Beach. Monthly surveys in Orange County during the non-breeding season have identified roosting sites that (Figure 14) provide important roosting and migration habitat based on the regular use of these

areas by snowy plovers. Salt Creek Beach supports a significant proportion of wintering snowy plovers in Orange County.

San Clemente City Beach

Estrella and SD Outlets are located on San Clemente City Beach and have not been regularly surveyed for snowy plovers during the breeding or non-breeding season. Snowy plovers were documented using the habitat in 2 of the 7 years in which surveys were conducted. Due to the very narrow sandy beach areas, snowy plovers could use the beaches at these outlets at low tide for foraging; however, it is unlikely that snowy plovers regularly utilize these beaches as roosting habitat. No suitable breeding habitat is available within or adjacent to the SD and Estrella Outlets. Because there is no suitable breeding habitat and only highly degraded roosting habitat due to narrow beaches immediately adjacent to developed areas is present, we do not consider the areas with the footprints for the Estrella and SD Outlets as occupied snowy plover habitat.

Table 2A. Wintering Window Surveys for Snowy Plovers

Year	Huntington City Beach	Huntington State Beach	Balboa Beach	Salt Creek Beach	San Clemente City Beach
2004	0	No Survey	No Survey	38	0
2005	0	0	12	30	No Survey
2006	No Survey	26	25	48	No Survey
2007	0	23	9	0	No Survey
2008	No Survey	30	24	No Survey	No Survey
2009	No Survey	13	77	0	No Survey
2010	No Survey	13	63	0	No Survey
2011	0	81	40	0	No Survey
2012	0	21	63	46	No Survey
2013	0	20	64	45	3
2014	0	21	125	16	0
2015	0	12	48	35	0
2016	0	15	45	33	0
2017	0	10	15	29	0
2018	0	21	19	32	48
Total	0	306	629	352	51
Average	**0**	**22**	**45**	**24**	**8**