

DEPARTMENT OF THE ARMY REGIONAL GENERAL PERMIT NUMBER 88

Permittee:	Orange County (OC) Parks
Project Name:	RGP 88 – OC Parks Ocean Outlets Maintenance Program (Aliso, Poche, Capistrano Beach)
Permit Number:	SPL-2010-00849-SME
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 U.S. Army Corps of Engineers (Corps) 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 Location: The project consists of three ocean outlets: Prima Deshecha Channel (Poche Beach Outlet) and Capistrano Beach Outlet No. 1 (CB Outlet), in the city of Dana Point, Orange County, California; and Aliso Creek Outlet, in the city of Laguna Beach, Orange County, California (Figure 1). Poche Beach Outlet is located southeast of the intersection of Pacific Coast Highway and Camino Capistrano. Poche Beach Outlet is bordered to the north by railroad tracks and the Pacific Coast Highway, to the south by open beach and the Pacific Ocean, to the east by open beach and a recreational facility, and to the west by single-family residences and open beach. CB Outlet is located approximately 750 feet southeast of the intersection of Pacific Coast Highway and Palisades Drive. CB Outlet is bordered to the north by a parking lot, Pacific Ocean, to the east by open beach, a parking lot and a residential area, and to the west by open beach and the Pacific Ocean, to the east by open beach. Aliso Creek Ocean Outlet is located at the mouth of Aliso Creek along the County-operated beach at the Pacific Ocean, southwest of the Pacific Coast Highway bridge crossing.

Outlet	Latitude	Longitude
Poche Beach Outlet	33.441091	-117.645131
Capistrano Beach Outlet No. 1	33.453886	-117.666480
Aliso Creek Outlet	33.51056	-117.751940

Project Description: The proposed project would consist of recurring maintenance activities at Poche Beach Outlet, Capistrano Beach Outlet No. 1 (CB Outlet), and Aliso Creek Outlet. The project would include semi-annual outlet maintenance and as-needed minor maintenance activities. The three outlets would be subject to inspections by OC Parks to determine when maintenance activities are necessary.

1. Semi-Annual Maintenance: Semi-annual maintenance activities would typically occur before the wet season (autumn) and before the summer recreation season (spring). These maintenance activities would include excavation of sediment deposits at the end of the outlets, discharge of excavated sediment onto the beach above the high tide line, and grading to prepare the adjacent beach area for recreational use.

Semi-annual maintenance at Poche Beach Outlet would include grading of an approximately 0.179-acre area and excavation of approximately 960 (+/- 192) cubic yards of sediment. The discharge of excavated sediment and related earthwork would occur on the beach adjacent to Poche Beach Outlet in an approximately 0.576 acre area above the high tide line.

Autumn semi-annual maintenance at CB Outlet would include grading of an approximately 0.103 acre area and excavation of approximately 486 (+/- 97) cubic yards of sediment. The discharge of excavated sediment and related earthwork would occur on the beach adjacent to CB Outlet in an approximately 0.230 acre area above the high tide line. Spring semi-annual maintenance would back-fill CB Outlet to improve beach-related recreational opportunities.

Semi-annual maintenance at Aliso Creek Outlet entails the excavation of approximately 37,000 cubic yards of sediment deposited within the channel outlet (approximately 200 linear feet) to increase hydraulic capacity in the area parallel to the rock revetment located on the south side of the outlet. The semiannual maintenance would affect an approximately 0.42-acre area at the mouth of the creek and disposal of excavated sand and related earthwork would occur on the adjacent beach in an approximately 0.3-acre area above the high tide line, but could be within the cut-off meandering stream course(s) after the straightened outlet is established. Boulders and rock riprap dislodged from the revetment would be retrieved and replaced during these events. Excavation and grading activities would be conducted using a bulldozer or front loader.

A Pre-Construction Notification (PCN) to the Corps Regulatory Division would be required prior to each semi-annual maintenance event at the outlets. A Notice to Proceed from the Corps Regulatory Division would be required prior to commencement of project-related activities.

2. Minor, As-Needed Maintenance: Minor, as-needed maintenance would include year-round berm-breaching activities for both Poche Beach Outlet and CB Outlet. These activities would re-establish channel flow when ponding occurs and beach access impairment is imminent. Maintenance activities would include excavation of a notch in the naturally forming sand berms at the downstream end of each outlet and mechanized grading to recontour outlet slopes. OC Parks would periodically inspect the outlets and determine when maintenance is needed. At Poche Beach Outlet, maintenance would involve the removal of

the sand berm to restore surface connectivity to the ocean. Work would be limited to the minimal amount necessary to achieve the overall project purpose.

In addition to the semi-annual major maintenance events, the applicant would conduct yearround weekly inspections of Aliso Creek Outlet to identify the outlet conditions and potential maintenance needs, which could include excavation of a notch in a naturally forming sand berm and mechanized grading to re-contour the slopes of the cut-off meandering stream, depending on site conditions, as described below:

- 1) In cases where the creek was beginning to meander, the work would entail breaching the sand berm by excavating a notch to allow the creek outlet to straighten; the work would be the minimal amount necessary to allow the notch to enlarge by creek flows. Grading activities would be minimal, if at all.
- 2) Where a marked meander had begun to develop up or down coast, the work would be to cut a notch with the approximate dimensions of 38 feet across at the top by 8 feet wide at the bottom by 5 feet down from the top in the berm (approximately 213 cubic yards over 0.04 acre of Waters of the United States). The approximately 213 cubic yards of excavated material would be deposited on the beach above the mean high tide line, but may be within the meander and graded using a bulldozer, tractor, or skip loader. No further earthwork would be required once the creek re-established a straightened outlet.
- 3) Should a long meander become established before maintenance activities occur, a notch would be cut in the berm to establish straightened outlet flows, as described above (item 2). Additionally, earthwork would be undertaken using a bulldozer, tractor, or skip loader, to grade the banks of the meandering stream to lay back the banks along the length of the cutoff meandering stream course (approximately 650 linear feet), which would involve the placement of approximately 2,500 cubic yards of sand into the meander over approximately 0.31 acre of Waters of the United States.

Work would be limited to the minimal amount necessary to achieve the overall project purpose. In the past five years, 31 minor plus two major maintenance events occurred at Poche Beach Outlet and only one major maintenance event occurred at CB Outlet.

A PCN to the Corps Regulatory Division would be required prior to commencement of minor, as-needed maintenance activities if nesting birds are found within 500 feet of the project sites during nesting bird surveys. As described above, these surveys would be required prior to commencement of any maintenance activities conducted during nesting bird season (March through September). If nesting birds are found, the Corps Regulatory Division would coordinate with the USFWS prior to making a final determination regarding the proposed activity. In this instance, a Notice to Proceed from the Corps Regulatory Division would be required prior to commencement of project-related activities.

Permit Conditions:

General Conditions:

- 1. The time limit for completing the authorized activity ends on **May 2, 2024**. 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 401 certification is attached (Attachment A).
- 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. Water Quality Certification: San Diego Regional Water Quality Control Board Certification (Project No. R9-2017-0087) expires on October 18, 2022 (Attachment A). No work shall occur after October 18, 2022 until renewal of the WQC and written authorization is issued by the Corps Regulatory Division. Additionally, no work shall be authorized that exceeds the scope of activities authorized under WQC R9-2017-0087 until written authorization is issued by the Corps Regulatory Division.

- 2. Authorized Work: Any activities authorized by this permit must be the minimum necessary to alleviate the maintenance need and should not exceed the design specifications of the ocean outlets.
 - a. The permittee shall submit a Pre-Construction Notification (PCN) to the Corps Regulatory Division at least ten days prior to conducting semi-annual maintenance activities at each outlet. This PCN shall include the name, address, and telephone number of the permittee's designated point-of-contact, the location of the proposed maintenance activities in detail, including an identification of the affected waterbodies, a description of the project area's existing conditions, including any sensitive resources that may be affected and anticipated impacts resulting from the proposed work, and a proposed work schedule. The permittee may proceed with the proposed maintenance activities if no response is received from the Corps Regulatory Division within this tenday period, unless nesting California least tern (*Sterna antillarum browni*) or western snowy plover (*Charadrius alexandrinus nivosus*) are found within 500 feet of the project footprint (see Special Condition 3 below). If the Corps Regulatory Division determines the proposed maintenance activities would be impermissible under this permit, the permittee would need to apply for separate authorization.
 - b. Minor, as-needed maintenance activities are limited to one event every two weeks at each outlet for the duration of this permit. In the event that more frequent maintenance activities are needed, the permittee must submit a PCN to the Corps Regulatory Division at least ten days prior to the proposed construction start date. The permittee may proceed with construction if no response is received from the Corps Regulatory Division within this ten-day period, unless nesting California least tern or western snowy plover are found within 500 feet of the project footprint (see Special Condition 3 below). If the Corps Regulatory Division determines the proposed maintenance activities would be impermissible under this permit, the permittee would need to apply for separate authorization.

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

Measures Specific to Western Snowy Plover

- a. For maintenance activities that will occur at Aliso Creek during the non-breeding season (September 1 to February 14), the biological monitor (who for this measure will have documented experience of at least 40 hours of observation surveying in the field for the snowy plover and least tern) will conduct pre-maintenance surveys for snowy plovers in and within 500 feet of the proposed maintenance footprint prior to heavy machinery accessing the beach. The biological monitor will be responsible for overseeing project activities to ensure compliance with the conservation measures and preventing unanticipated impacts to snowy plovers at Aliso Creek.
 - i. 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.

- b. To the maximum extent practical, project-related activities (e.g., use of heavy machinery and vehicles use on the beach) that occur within 500 feet of the proposed maintenance footprint at Aliso Creek will take place outside of the snowy plover breeding season (February 15 to August 31).
- c. If avoiding the snowy plover breeding season at Aliso Creek is not possible, then the following additional measures will be employed:
 - i. The biological monitor will conduct pre-project surveys for snowy plovers in and within 500 feet of the project footprint which includes the areas identified for receiving fill and through which vehicles will travel.
 - ii. If snowy plovers are observed during the breeding season, then a snowy plover biologist (a trained ornithologist with at least 40 hours of observation in the field for snowy plover and documented experience of at least 20 hours of locating and monitoring snowy plover nests) will conduct a second pre-project survey for snowy plovers and their nests in and within 500 feet of the project footprint including the areas identified for receiving fill and through which vehicles will travel.
 - 1. 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 project footprint, no project work will begin and the breeding season biologist will report the nest to the CFWO. OC Parks 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.
 - 2. If snowy plovers are observed within 500 feet of the project footprint and no breeding behavior activity is observed, the snowy plover biologist will be onsite at all times during any maintenance activities that require mechanized equipment. If snowy plovers are observed within the project footprint, the snowy plover biologist 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 snowy plover biologist will guide the snowy plovers at least 150 feet from the project footprint. The snowy plover biologist will have the ability to halt maintenance activities, if necessary, to avoid unanticipated impacts, including significant disturbance, to the snowy plover.

Measures Specific to California Least Tern

- a. To the maximum extent practical, project-related activities (e.g., use of heavy machinery and vehicle use on the beach) that occur within 500 feet of the proposed maintenance footprint at Aliso Creek will take place outside of the least tern breeding season (April 1 to September 15).
- b. If avoiding the least tern breeding season at Aliso Creek is not possible, then the following additional measures will be employed:
 - i. The biological monitor will conduct pre-project surveys for least terns in and within 500 feet of the project footprint which includes the areas identified for receiving fill and through which vehicles will travel.
 - ii. If least terns are observed, then a least tern biologist4 will conduct a second preproject survey for least terns and their nests in and within 500 feet of the project footprint including the areas identified for receiving fill and through which vehicles will travel.
 - 1. 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 proposed project area, no project work will start and the least tern biologist will report the nest to the CFWO. OC Parks 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.
 - 2. If least terns are observed in or within 500 feet of the proposed project footprint and no breeding behavior activity is observed, the least tern biologist will be onsite at all times during any maintenance activities that require mechanized equipment and will be responsible for overseeing project activities to ensure compliance with the conservation measures and preventing unanticipated impacts to least terns at Aliso Creek. If least terns are observed within the project footprint, the least tern biologist 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 least tern biologist will have the ability to halt maintenance activities, if necessary, to avoid unanticipated impacts, including significant disturbance, to the least tern.

Measures Specific to Tidewater Goby Critical Habitat

a. All sediment excavation, grading, re-contouring, and work within the Aliso Creek Outlet will be limited to the amounts defined in the Project Description above. If semi-annual or minor maintenance events require excavation and/or grading in excess of the maximum anticipated impact areas, OC Parks will coordinate with the CFWO to evaluate if reinitiation of consultation is necessary.

Measures Specific to California Grunion

a. 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 California least tern and the western snowy plover, 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 of FWS-OR-19B0013-19I0184 (Carlsbad Fish and Wildlife Office, March 21, 2019), which are incorporated by reference in this permit (see Special Condition 3) and attached. Failure to comply with the required avoidance and minimization measures 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' Regulatory Project Manager (Tiffany Kwakwa at 213-452-3375) and 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 to the Site: You must allow representatives from this office and other state and Federal 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 (BMPs)**: 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 BMPs to ensure that toxic materials, silt, debris, or excessive erosion do not enter waters of the United States during project construction.

8. Siltation Controls: When performing any excavation activity in or near the outlets, all excavated material shall be distributed onto the adjacent beach above the mean high water mark within the boundaries identified on Figures 2 - 4. Appropriate BMPs shall be implemented to minimize turbidity during construction.

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 that 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 must be avoided to the maximum extent practicable. Seasonal restrictions are discussed above in Special Condition 3.

13. **Waterfowl Breeding Areas**: Discharges into breeding areas for migratory waterfowl shall 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 Regulatory Division, 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 by May 1st of each year this RGP is valid. The report shall summarize all maintenance activities and 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. §326.4(d)). Furthermore, failure to provide these annual reports will jeopardize the possibility of re-authorizing 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.
 - ii. Size and description of the project area (include maps or drawings showing the area and lineal extent of the project and pre- and post-construction photographs).
 - iii. Information on the receiving waterbodies impacted including:
 - a) The name of the waterbodies;
 - b) The type of receiving waterbodies (e.g. river/streambed, lake/reservoir, ocean/estuary/bay, riparian area, wetland type, etc.);
 - c) Temporary/permanent impact(s) in acres/cubic yards/linear feet for each maintenance event;
 - d) Other mitigation steps (to avoid or minimize impacts); and
 - e) Compensatory mitigation in acres/cubic yards/linear feet.
 - iv. Information on federally listed or proposed endangered species, designated or proposed critical habitat, Essential Fish Habitat, and federally managed fish species (notification must be provided to USFWS and/or the National Marine Fisheries Service, as appropriate) including:
 - a) Temporary/permanent adverse impacts;
 - b) Mitigation steps (to avoid, minimize); and
 - 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 Rivers and Harbors 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 (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. Re-evaluation of Permit Decision. This office may re-evaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a re-evaluation 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 re-evaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 C.F.R. §325.7 or enforcement procedures such as those contained in 33 C.F.R. §§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 C.F.R. §209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a re-evaluation of the public interest decision, the Corps will normally give you favorable consideration to a request for an extension of this time limit.

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

Mars 20ton

PERMITTEE MARK ÉSTOQUE SR. ENVIRONMENTAL RESOURCES SPECIAUSTS

562019 DATE

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

Sallie Diebolt

09 MAY 2019 DATE

Chief, Arizona Branch, Regulatory Division

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







Feet

CHAMBER

Mean High Wat	ter Line
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- 🗾 Disposal Area
- Work Area
- 🗕 🛚 High Tide Line
- Mean High Water Line
- USACE Jurisdiction KX Excavation/Dredging Area III Jurisdiction 300-foot Buffer
 - Photo Location (w/ direction) \mathbf{T}



Figure 4 Aliso Creek Beach Outlet

0 25 50 100 Feet

СНАМВЕ



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-19B0013-19I0184

March 21, 2019 Sent electronically

Pam Kostka Senior Project Manager U.S. Army Corps of Engineers – Los Angeles District Ventura Field Office 2151 Alessandro Drive, Suite 110 Ventura, California 93001

Attention: Pam Kostka, Senior Project Manager (Corps File No. SPL-2005-00740 and SPL-2010-00849-SME)

Subject: Informal Section 7 Consultation for Reauthorization of Regional General Permit 88, Ocean Outlet Maintenance Project, Orange County, California

Dear Ms. Kostka:

This letter is in response to your January 25, 2018, request for concurrence that the proposed reauthorization of Regional General Permit (RGP) 88, Ocean Outlet Maintenance Project, Orange County, California, is not likely to adversely affect the federally endangered California least tern [*Sternula antillarum browni* (*Sterna a. b.*); least tern], threatened western snowy plover {Pacific Coast population DPS [*Charadrius nivosus nivosus* (*C. alexandrinus n.*); plover]}, or result in adverse modification of critical habitat for the tidewater goby (*Eucyclogobius newberryi*; goby). Your request for concurrence is made in accordance with section 7 of the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 et seq.).

DESCRIPTION OF THE PROPOSED ACTION

The proposed project includes three ocean outlets: Poche Beach Outlet; Capistrano Beach Outlet No.1 (CB Outlet) in the city of Dana Point, Orange County, California; and Aliso Creek Outlet in the city of Laguna Beach, Orange County, California, 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-2005-00740 and Corps File No. SPL-2010-00849-SME. The three outlets will be subject to inspections by Orange County Parks (OC Parks), which will determine when maintenance activities are necessary.

Poche Beach Outlet is the terminus of the Prima Deschecha Canada Channel which receives freshwater from natural and urban sources. Flows enter Poche Beach Outlet through a rectangular concrete channel with riprap revetment. Tidal events can inundate Poche Beach Outlet with salt water and can 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 pond adjacent to the outlet, which can flood the access catwalk and prevent or limit beach access at this location.

CB Outlet is the terminus of an unnamed, rectangular concrete channel that receives freshwater from primarily urban sources. Flows enter Capistrano Beach from a trapezoidal concrete channel. Tidal events can inundate CB Outlet and move sand, creating a sand berm that forms a barrier limiting or preventing freshwater flows from draining into the ocean. The freshwater flows then back up, forming a brackish pond adjacent to the outlet, which can prevent or limit beach access at this location.

The Aliso Creek Outlet is the terminus of Aliso Creek, a watershed that encompasses about 30.5 square miles of urban, suburban, and undeveloped areas. Aliso Creek naturally forms a freshwater lagoon before it drains into the ocean. Tidal events naturally open and close the mouth of the lagoon. Goby were historically documented within Aliso Creek, with the last known occupancy of gobies documented in 1977 (Service 2013). It is believed gobies were extirpated from Aliso Creek shortly after 1977, although the cause of extirpation is unknown. Critical habitat for the goby was designated at Aliso Creek as it possesses primary constituent elements (i.e., the physical or biological features that provide for a species' life history processes that are essential to the conservation of the species) and because the location has been identified as a potential reintroduction site which would aid recovery in the genetically unique South Coast Recovery Unit (Service 2013).

Semi-Annual Maintenance

Semi-annual maintenance will occur two times a year, an autumn event (prior to the wet season) and a spring event (prior to the summer recreational season). Maintenance activities will include excavation of sediment from the end of the outlets, placement of the excavated sediment onto the beach above the high tide line, and grading to re-contour the outlet and the excavated sediments to allow for recreational use.

Poche Beach Outlet

Semi-annual maintenance will include excavation of about 1,152 cubic yards of sediment from the outlet channel and grading of about 0.18 acre around the outlet to re-contour the area. Excavated sediment will be relocated and then graded to allow for recreational use within an about 0.58-acre area above the high tide to the south of the outlet line (Figure 1).

Capistrano Beach Outlet #1

Semi-annual maintenance will include an autumn event that will excavate about 583 cubic yards of sediment from the outlet channel and then grade about 0.10 acre around the outlet to re-contour the area. Excavated sediment will be placed and then graded to allow for recreational use within a 0.23-acre area above the high tide line located north and south of the outlet (Figure 2). The spring event will grade and remove sand from within the 0.23-acre area to backfill the CB Outlet in order to provide increased recreational use opportunities during the summer.

Aliso Creek Outlet

Semi-annual maintenance will include excavation of about 37,000 cubic yards of sediment from the outlet channel and grading of about 0.42 acre around the outlet to re-contour the area. Excavated sediment will be placed and then graded to allow for recreational use within an about 0.3-acre area above the high tide line north of the outlet (Figure 3) and/or to fill the area the meandered outlet channel has created that is outside the boundaries of the straightened outlet channel. Boulders and rock riprap that have been dislodged from the revetment during high flows will be retrieved and replaced during semi-annual maintenance events.

Minor, As-Needed Maintenance

OC Parks will conduct periodic inspections of the outlets to determine what maintenance is needed. Minor, as-needed maintenance, will occur year-round at Poche Beach Outlet and CB Outlet.

Poche Beach Outlet

At Poche Beach Outlet, as-needed maintenance activities will include removing the sand berm to restore the outlet channel's connectivity to the ocean. To reestablish connectivity, heavy machinery will be used to remove the sand berm (about 40 ± 10 cubic yards of sediment) and then grade about 0.25-acre area around the outlet to re-contour the area. Excavated sediment will be relocated and then graded to allow for recreational use within an about 0.50-acre area above the high tide to the south of the outlet line (Figure 1).

Capistrano Beach Outlet #1

At CB Outlet, as-needed maintenance activities will only occur to re-establish outlet channel flow when ponding occurs and beach access impairment is imminent. Maintenance activities to re-establish channel flow will include heavy machinery use to excavate a notch in the naturally occurring sand berm at the downstream end of the outlet and grading of about 0.25 acre to re-contour the area around the outlet.

Aliso Creek Outlet

At Aliso Creek Outlet, as-needed maintenance activities may include a number of options depending on site conditions.

- 1. When Aliso Creek begins to meander, maintenance activities will include breaching the sand berm by excavating a notch at the downstream end of the outlet. Excavation of the notch will include the minimal amount of excavation as is necessary to allow the notch to enlarge by creek flows. Grading will be kept to the minimal amount necessary to re-contour outlet slopes, if it occurs at all.
- 2. When Aliso Creek has created a marked meander, a notch about 38 feet by 8 feet by 5 feet will be excavated within about 0.04 acre and will remove about 213 cubic yards of sand to create a straight outlet channel. The excavated materials will be deposited on the beach above the high tide line in a 0.25-acre area or within the meander and graded with heavy machinery

to re-contour the outlet slopes. In addition, when Aliso Creek has created a long meander, heavy machinery will be used to fill (about 2,500 cubic yards of sand) and then grade out the banks along the length of the cutoff meandering stream course (about 0.31 acre).

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 goby critical habitat:

- CM 1. The project work area will be limited to the site identified in the project description of the initiation letter for RPG 88 Notification (SPL-2010-00849-SME) and Figures 1, 2, and 3 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 beyond the project footprints as delineated in Figures 1, 2, and 3.
- CM 2. All project-related activities will occur within the designated project boundaries to minimize the likelihood of unanticipated impacts to listed species and their habitats.
- CM 3. An education program will be conducted for staff 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 4. The project will have a clearly defined footprint on project reference maps and in the field, construction personnel will remain within the limits of the project footprint for the duration of the project.
- CM 5. Vehicles accessing the beach will travel at speeds no greater than 5 mph.
- CM 6. 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 7. Excavated sediment will be placed above the high tide line as identified in the project footprints. 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.
- CM 8. Maintenance Activity Reporting:
 - a. If snowy plovers or least terns are observed during pre-project surveys, a monitoring report will be submitted to the Carlsbad Fish and Wildlife Office (CFWO) within 60 days of completing maintenance activities. 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 in the area, and observed effect of construction activities on least terns or snowy plovers.

- b. If no snowy plovers or least terns are observed during any pre-project surveys, then the applicant will submit only a brief annual report documenting the length of time that each maintenance event was conducted and a general description of the nature of the maintenance activities.
- CM 9. All maintenance activities will be limited to the amount of excavation and grading as defined in the Project Description above. If semi-annual or minor maintenance events require excavation and/or grading in excess of the maximum anticipated impact areas, the applicant will coordinate with the CFWO to determine if reinitiation of consultation is necessary.

Measures Specific to the Snowy Plover

- CM 10. For maintenance activities that will occur at Aliso Creek during the non-breeding season (September 1 to February 14), the biological monitor¹ will conduct pre-maintenance surveys for snowy plovers in and within 500 feet of the proposed maintenance footprint prior to heavy machinery accessing the beach. The biological monitor will be responsible for overseeing project activities to ensure compliance with the conservation measures and preventing unanticipated impacts to snowy plovers at Aliso Creek.
 - 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 11. To the maximum extent practical, project-related activities (e.g., use of heavy machinery and vehicles use on the beach) that occur within 500 feet of the proposed maintenance footprint at Aliso Creek will take place outside of the snowy plover breeding season (February 15 to August 31).
- CM 12. If avoiding the snowy plover breeding season at Aliso Creek is not possible, then the following additional measures will be employed:
 - a. The biological monitor will conduct pre-project surveys for snowy plovers in and within 500 feet of the project footprint which includes the areas identified for receiving fill and through which vehicles will travel.

¹ The designated biological monitor for this measure will have documented experience of at least 40 hours of observation surveying in the field for the snowy plover and least tern.

- b. If snowy plovers are observed during the breeding season, then a snowy plover biologist² will conduct a second pre-project survey for snowy plovers and their nests in and within 500 feet of the project footprint including the areas identified for receiving fill and through which vehicles will travel.
 - i. 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 project footprint, no project work will begin and the breeding season biologist will report the nest to the CFWO. OC Parks 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.
 - ii. If snowy plovers are observed within 500 feet of the project footprint and no breeding behavior activity is observed, the snowy plover biologist will be onsite at all times during any maintenance activities that require mechanized equipment. If snowy plovers are observed within the project footprint, the snowy plover biologist 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 snowy plover biologist will guide the snowy plovers at least 150 feet from the project footprint. The snowy plover biologist will have the ability to halt maintenance activities, if necessary, to avoid unanticipated impacts, including significant disturbance, to the snowy plover.

Measures Specific to the Least Tern

- CM 13. To the maximum extent practical, project-related activities (e.g., use of heavy machinery and vehicle use on the beach) that occur within 500 feet of the proposed maintenance footprint at Aliso Creek (Figure 3) will take place outside of the least tern breeding season (April 1 to September 15).
- CM 14. If avoiding the least tern breeding season at Aliso Creek is not possible, then the following additional measures will be employed:
 - a. The biological monitor³ will conduct pre-project surveys for least terns in and within 500 feet of the project footprint which includes the areas identified for receiving fill and through which vehicles will travel.

 $^{^{2}}$ The snowy plover biologist for this measure will be a trained ornithologist with at least 40 hours of observation in the field for the snowy plover and documented experience of at least 20 hours of locating and monitoring nests of the snowy plover.

³ The designated biological monitor for this measure will have documented experience of at least 40 hours of observation in the field surveying for the snowy plover and least tern.

- b. If least terns are observed, then a least tern biologist⁴ will conduct a second preproject survey for least terns and their nests in and within 500 feet of the project footprint including the areas identified for receiving fill and through which vehicles will travel.
 - i. 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 proposed project area, no project work will start and the least tern biologist will report the nest to the CFWO. OC Parks 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.
 - ii. If least terns are observed in or within 500 feet of the proposed project footprint and no breeding behavior activity is observed, the least tern biologist will be onsite at all times during any maintenance activities that require mechanized equipment and will be responsible for overseeing project activities to ensure compliance with the conservation measures and preventing unanticipated impacts to least terns at Aliso Creek. If least terns are observed within the project footprint, the least tern biologist 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 least tern biologist will have the ability to halt maintenance activities, if necessary, to avoid unanticipated impacts, including significant disturbance, to the least tern.

Measures Specific to Goby Critical Habitat

CM 15. All sediment excavation, grading, re-contouring, and work within the Aliso Creek Outlet will be limited to the amounts defined in the Project Description above. If semi-annual or minor maintenance events require excavation and/or grading in excess of the maximum anticipated impact areas, OC Parks will coordinate with the CFWO to evaluate if reinitiation of consultation is necessary.

Snowy plovers regularly breed at only one location in Orange County, the Bolsa Chica Ecological Reserve, and breed irregularly at Huntington State Beach and Balboa Beach. Non-breeding snowy plovers regularly use beaches along Orange County. Individuals that have successfully or unsuccessfully nested, are unpaired, or are not fully mature appear to use Orange County beaches as roosting, foraging, and migration habitat from April to August and as migration and wintering habitat from September to March. Least terns regularly breed at four locations (Seal Beach National Wildlife Refuge, Bolsa Chica Ecological Reserve, Huntington State Beach, and Upper Newport Bay Ecological Reserve) in Orange County and irregularly at Burris Basin and Anaheim Lake. Individuals that have successfully or unsuccessfully nested or are unpaired use Orange County beaches for staging during migration and as temporary roosting areas from April to September.

⁴ The least tern biologist for this measure will be a trained ornithologist with at least 40 hours of observation in the field for the least tern and documented experience of at least 20 hours of locating and monitoring nests of the least tern.

We have little data on the status of snowy plovers and least terns using Aliso Creek, Poche, and CB outlets. At Poche outlet, the beach immediately north of the outlets is very narrow, with the entire beach covered at high tide, south of the outlet, the beach widens for about 1,400 feet before constricting again. A portion of the available sandy beach south of the outlet is utilized by the Shorecliffs Beach Club, and much of the rest of the beach is vegetated with primarily non-native vegetation above the high tide line. The CB outlet is located immediately in front of an about 1,000-foot long paved beach parking lot. The beach is primarily under water at high tide, with a very narrow strip of sand along the sidewalk left uncovered. Although snowy plovers and least terns could use the beaches at low tide for foraging and roosting, it is unlikely that these species regularly utilize these beaches as foraging and roosting habitat. No suitable breeding habitat for snowy plovers or least terns is present within or adjacent to the Poche or CB outlet footprints. Because there is no suitable breeding habitat and only 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 Poche and CB Outlets as occupied snowy plover or least tern habitat.

Aliso Creek outlet is located within Aliso Creek County Park. Although there are houses and a parking lot immediately north and south of the outlet, the sandy beach area is much wider than at Poche and CB outlets. Aliso Creek forms a lagoon which is naturally opened and closed by tidal events. Snowy plovers and least terns have not been regularly surveyed for at Aliso Creek; however, least terns likely use areas at or adjacent to Aliso Creek outlet, for roosting and staging during migration and snowy plovers may use this beach as roosting, foraging, and migration habitat from April to August and as migration and wintering habitat from September to March. Therefore it is possible, but unlikely, that snowy plovers or least terns could establish a territory in adjacent habitat or at other suitable habitat within the project footprint prior to or during project implementation.

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 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 maintenance activities, and measures (CM 10, CM 12, and CM 14) 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 10) 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 12 and CM 14), 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 Western Snowy Plover

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 7) and minimizing the extent of compaction and crushing of the invertebrate community within the project areas by vehicles remaining in the project footprint at all times, 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 7, and CM 9). 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.

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,

Digitally signed by JONATHAN SNYDER Date: 2019.03.21 16:46:02 -07'00'

for Karen A. Goebel Assistant Field Supervisor

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Personal Communications

 Kwakwa, T. 2018. Project Manager, Los Angeles District, U.S. Army Corps of Engineers, Lost Angeles, California. Email Correspondence to Katy Kughen, USFWS, Carlsbad, California. Dated: January 25, 2018. Subject: Request for Initiation of Informal Consultation for RGP 88 Renewal with Inclusion of Aliso Creek (Corps File No. SPL-2010-00849-SME)

Figure 1. Poche Beach Maintenance Area Footprint (Kwakwa 2018, pers. comm.)

Figure 2. Capistrano Beach Maintenance Area Footprint (Kwakwa 2018, pers. comm.)

Figure 3. Aliso Creek Beach Maintenance Area Footprint (Kwakwa 2018, pers. comm.)