



EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIGUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

Los Angeles Regional Water Quality Control Board

December 18, 2018

Christopher Carobene
Tyco Electronics Subsea Communications
250 Industrial Way West
Eatontown, NJ 07724

VIA CERTIFIED MAIL
RETURN RECEIPT REQUESTED
No. 7008 1140 0002 8672 0796

Dear Mr. Carobene:

RE: CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION AND ORDER
FOR THE CURIE CABLE SYSTEM PROJECT (WDID FILE 4WQC40118102)

Enclosed please find a Clean Water Act Section 401 Water Quality Certification and Order, authorized by the Los Angeles Regional Water Quality Control Board Executive Officer, Deborah J. Smith. This Order is issued to Tyco Electronic Subsea Communications for the Curie Cable System Project (Project). Attachments A through C of the Enclosure are also part of the Order.

This Order is issued in response to an application submitted by Tyco Electronic Subsea Communications for proposed Project discharges to waters of the state, to ensure that the water quality standards for all waters of the state impacted by the Project are met. You may proceed with your Project according to the terms and conditions of the enclosed Order.

If you require further assistance, please contact Valerie Carrillo Zara by phone at (213) 576-6759 or by email at Valerie.CarrilloZara@waterboards.ca.gov. You may also contact LB Nye, Senior Environmental Scientist, by phone at (213) 576-6785 or by email at LB.Nye@waterboards.ca.gov.

Sincerely,

LB Nye
Senior Environmental Scientist
Section 401 Certification and Wetlands Unit
Los Angeles Water Quality Control Board

Enclosures (1): Order for Curie Cable System Project, File No. 18-102

cc: [Via email only] (w/ enclosure):

Nikki Payne
Environmental Resources Management

Elizabeth Payne
CWA Section 401 WQC Program
Division of Water Quality
State Water Resources Control Board

Pamela Kostka
U.S. Army Corps of Engineers
Regulatory Branch, Los Angeles District

Melissa Scianni
Office of Water
US EPA, Region 9

G. Mendel Stewart
Jonathan Snyder
U.S. Fish and Wildlife Service

Kate Huckelbridge
California Coastal Commission



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Los Angeles Regional Water Quality Control Board

CLEAN WATER ACT SECTION 401 WATER QUALITY CERTIFICATION AND ORDER

Effective Date: December 18, 2018

Program Type: Fill/Excavation

Reg. Meas. ID:	425405
Place ID:	851245
WDID:	4WQC40118102
NWP:	12
USACOE#:	SPL-2016-00669-PK
R4 File No	18-102

Project Type: Underground Utility

Project: Curie Cable System Project (Project)

Applicant: Tyco Electronics Subsea Communications

Applicant Contact: Christopher Carobene
250 Industrial Way West
Eatontown, NJ 07724
Phone: 732-578-7263
Email: ccarobene@subcom.com

Applicant's Agent: Nikki Payne
Environmental Resources Management
1920 Main Street, Suite 300
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Water Board Staff: Valerie Carrillo Zara
Engineering Geologist
320 W. 4th Street, Suite 200
Los Angeles, CA 90013
Phone: 213-576-6759
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Water Board Contact Person:

If you have any questions, please call Los Angeles Regional Water Quality Control Board (Los Angeles Water Board) Staff listed above or (213) 576-6600 and ask to speak with the Water Quality Certification and Wetlands Unit Program Manager.

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I. Order

This Clean Water Act (CWA) section 401 Water Quality Certification action and Order (Order) is issued at the request of Tyco Electronics Subsea Communications (hereinafter Permittee) for the Project. This Order is for the purpose described in application and supplemental information submitted by the Permittee. The application was received on September 7, 2018. The application was deemed complete on October 16, 2018.

II. Public Notice

The Los Angeles Water Board provided public notice of the application pursuant to California Code of Regulations, title 23, section 3858 from September 11, 2018 to the effective date of Order. The Los Angeles Water Board did not receive any comments during the comment period.

III. Project Purpose

The purpose of the Project is to install a Trans-Pacific subsea fiber optic cable that will connect to Los Angeles area data centers.

IV. Project Description

The Permittee installed the Los Angeles Trans-Pacific Telecommunications Cable Hub landing site (Cable Hub) in the City of Los Angeles, California, in the northeast corner of the parking lot at Dockweiler State Beach, immediately west of South Marine Avenue. An ocean ground bed, beach manhole (BMH), subsea steel bore pipe and upland conduit were also installed. The Cable Hub project was issued a CWA section 401 Water Quality Certification on December 14, 2017 (File 17-048).

The proposed Curie Cable System ("Curie" or Project) will be installed as Phase II of the Cable Hub project.

From the Cable Hub landing site seaward, the Curie subsea cable will be installed across Los Angeles' submerged lands, U.S. Territorial Waters, and the U.S. Exclusive Economic Zone, then traveling south through the Pacific Ocean and ultimately terminating in Chile. From the Cable Hub landing site landward, the Curie cable will be pulled into existing subsurface infrastructure, approximately 3.7 miles (6.0 kilometers) to connect to an existing data center in El Segundo, California.

Cable Landing Site

Construction activities at the Cable Hub landing site will be limited to trenching from the terminus of an existing bore pipe to an existing BMH, installing articulated pipe and pulling the cable into existing infrastructure.

Pre-Lay Grapnel Run

Immediately prior to installation of the subsea cable(s), a pre-lay grapnel run (PLGR) will be carried out along the Curie cable route, from the horizontal directional drilling (HDD) conduit exit point, out to a depth of approximately 3,937 feet (1,200 meters).

The purpose of the PLGR is to clear seafloor surface debris (i.e., wires or hawsers, derelict fishing gear, etc.) that may have been deposited along the route. Any debris recovered during these operations shall be disposed ashore upon completion of the operations. A vessel will lower a suitable flatfish grapnel to the seafloor and proceed to tow the grapnel across the

seafloor, along the cable route. As the grapnel is dragged across the bottom, blade penetration of up to 15.7 inches (40 centimeters) is achieved, depending on seafloor composition. The grapnel activity will not be conducted within a buffered distance of existing buried cables.

Cable Installation

The cable installation involves three steps: tie-in of the cable to the landing site, installation of the offshore cable, and post-lay inspection and burial.

Cable Landing Tie-In

The shore-end landing is a one-day operation during which a winch is used to pull the cable from the cable ship offshore through the marine bore pipe and anchor it in place behind the BMH.

Prior to the day of the landing, divers will locate and expose the bore pipe and pre-install a "bell-mouth" adaptor to the bore pipe end. On the day of the landing, divers will attach a wire "messenger" line from the cable ship, through the bell-mouth, and to a pre-installed "pull wire" in the bore pipe. The cable will then be pulled through the bore pipe and anchored in place behind the BMH. Once the cable is landed and secured, a diver will swim to the cable to check on the condition of the cable on the seabed. Adjustments will be made as needed to achieve proper cable slack and placement on the seabed and to reduce and/or eliminate chaffing points.

Immediately following the shore-end landing, articulated pipe (a protective iron casing with 2 5/8-inch inner diameter) will be applied to the cable in two locations:

- A dive team will apply articulated pipe along approximately 16.4 feet (5 meters) of the cable from the bore pipe exit point seaward, and then bury the cable to a target depth of 3.3 feet using diver jetting; and
- A trench will be excavated in the parking lot in order to install articulated pipe along approximately 97 feet (30 meters) of cable between the BMH and the landward entry point of the bore pipe.

Offshore Cable Installation

The cable will be installed by cable ship through state, federal, and international waters. Where possible, the offshore cable will be buried to a target depth of 3.3 feet below the sea floor in water depths up to 3,937 feet, beginning from the HDD bore pipe exit point. Through soft-bottom areas, the cable ship will install and bury the cable simultaneously using a sea plow. The plow is a burial tool resembling a large sled attached to the cable ship with a tow wire. The sea plow allows for mechanical burial of the cable to a desired depth, creating a furrow approximately 1.5 feet wide, and feeding the cable to the bottom of the furrow. The furrow is then backfilled by the collapsing of the trench sidewalls which are unstable due to their vertical geometry. In hard bottom areas and areas below 3,937 feet (1,200 meters) water depth, the cable will be laid directly on the ocean floor.

Computerized modeling and tracking will be utilized to control position and tension of the cable during laying activities, and correct for external factors such as wind and ocean currents. Information such as the planned cable route, bathymetry, the ship heading, position and speed, the cable characteristics, and layout speed are integrated into the software to optimize real time monitoring of the cable installation. Use of the cable lay software during

installation reduces the likelihood of unwanted cable suspensions and assists in accurately placing the cable along the planned route. Once the cable is laid and buried, it maintains position on the seafloor. This is owing to the installation methods that manage slack in the cable, the weight of the cable itself, and burial.

Post-Lay Inspection and Burial

Where plow burial is not possible as part of the main cable installation (e.g., crossings of other in-service cables) or where the cable plow could not achieve the target depth due to bottom conditions, the cable will be surface-laid by the cable ship and subsequently buried through post-lay inspection and burial. The post-lay inspection and burial (PLIB) can take place any time after the initial marine installation is completed; however, it is expected to take place immediately following completion of the cable landing tie-ins for the Curie cable.

In deeper waters between 98 and 328 feet, a remotely operated vehicle (ROV) will be used to conduct PLIB. The ROV is a robotic device, which will be deployed and operated from the cable ship to which it is tethered. The ROV fluidizes the seafloor sediments beneath the cable by jetting to allow for cable settlement to the desired depth. The need for the above burial options will be determined once site-specific conditions are known.

Diver-assisted jet burial can be used in shallower depths, between 32 and 98 feet and involves fluidizing the seabed to facilitate cable burial by divers with hand jets.

Upland Cable Pulling

The sub-ducts and cable associated with Curie will be installed into the existing Cable Hub terrestrial conduit infrastructure by pulling them from one intermediate manhole to the next. Equipment required for this operation includes trailers to transport the sub-ducts and cable, and truck-mounted mechanical pulling equipment. Although cable pulling does not disturb the ground surface physically, traffic control may be required for manholes located in traffic lanes. A non-toxic pulling lubricant will be used to facilitate the pulling and subsequently dry in place.

Upland Site Restoration

Surface restoration in the parking lot will involve returning the impacted areas to preconstruction contours and elevations, per the requirements of Los Angeles County's Right-of-Entry Permit. Additionally, restoration entails pavement repair, curb and gutter reconstruction, and pavement re-striping, if needed.

V. Project Location

Dockweiler Beach, Santa Monica Bay

<u>Latitude</u>	<u>Longitude</u>
33.942208	-118.456272
33.943290	-118.460602
33.944137	-118.466888
33.944938	-118.482045
33.945574	-118.491497
33.946128	-118.499755
33.947250	-118.511181

33.947951

-118.521592

Maps showing the Project location are found in Attachment A of this Order.

VI. Project Impact and Receiving Waters Information

The Project is located within the jurisdiction of Los Angeles Regional Water Quality Control Board. Receiving waters and groundwater potentially impacted by this Project are protected in accordance with the applicable water quality control plan (Basin Plan) for the region and other plans and policies which may be accessed online at:

http://www.waterboards.ca.gov/plans_policies/. The Basin Plan includes water quality standards, which consist of existing and potential beneficial uses of waters of the state, water quality objectives to protect those uses, and the state and federal antidegradation policies.

Receiving Water: Santa Monica Bay
(Hydrologic Unit Code: 180701040500)

Designated Beneficial Uses: IND, NAV, REC-1, REC-2, COMM, MAR, WILD, SPWN

VII. Description of Direct Impacts to Waters of the State

The area of impact was calculated using benthic substrate survey data and ocean floor topography data. The impact width along the cable is determined by the method of cable installation, which depends on the substrate type and water depth. As the PLGR grapnel is dragged across the bottom, blade penetration is achieved over a width of approximately 3.3 feet. Based on consultation with the U.S. Army Corps of Engineers for the Cable Hub application, the width of the PLGR was used to determine the temporary impact area for installation of the Curie cable.

The cable will be laid directly on the sea floor in hard bottom areas and all areas deeper than 3,937 feet. Crushing, scraping, and/or displacement of hard bottom substrates and their associated flora and fauna may occur from surface laid cable activities. These impacts are expected to affect an area double the width of the cable (approximately 1.5 inches in diameter). No impacts to hard bottom communities from the PLGR or sea plow are anticipated, because the grapnel and plow will be lifted above the sea floor at least 50 feet before reaching surveyed hard bottom habitats.

Total Project fill/excavation quantities for all impacts are summarized in Table 1. Permanent impacts are categorized as those resulting in a physical loss in area and also those degrading ecological condition only.

Table 1: Total Project Fill/Excavation Quantity									
Aquatic Resource Type	Temporary Impact ¹			Permanent Impact					
				Physical Loss of Area			Degradation of Ecological Condition Only		
	Acres	CY ²	LF	Acres	CY	LF	Acres	CY	LF
Ocean/bay/estuary							1.5		19,860

VIII. Compensatory Mitigation

No compensatory mitigation was required for permanent impacts because the offshore cable burial activities via disturbance to the seafloor from the sea plow, along with the creation of a small furrow for cable burial will result in no loss in the extent of the waters of the state and because all areas of impact will continue to function as habitat. The sediments displaced during cable burial will settle immediately back to the seafloor. Because it is so narrow, the surface laid cable is not expected to significantly disturb hard bottom habitat.

IX. California Environmental Quality Act (CEQA)

On November 3, 2017, the City of Los Angeles, as lead agency, certified an environmental impact report (EIR) (State Clearinghouse No. 2016101050) for the Project. The Los Angeles Water Board is a responsible agency under CEQA (Pub. Resources Code, § 21069) and in making its determinations and findings, must presume that City of Los Angeles' adopted environmental document comports with the requirements of CEQA and is valid. (Cal. Code Regs., tit. 14 § 15096(e); Pub. Resources Code, § 21167.2.) The Los Angeles Water Board has reviewed and considered the environmental document and finds that the environmental document prepared by City of Los Angeles adequately addresses the Project's water resource impacts. (Cal. Code Regs., tit. 14, § 15096, subd. (f).)

X. Petitions for Reconsideration

Any person aggrieved by this action may petition the State Water Board to reconsider this Order in accordance with California Code of Regulations, title 23, section 3867. A petition for reconsideration must be submitted in writing and received within 30 calendar days of the issuance of this Order.

XI. Fees Received

The fee amount for the proposed project has been determined as required by California Code of Regulations, title 23, sections 3833(b)(3) and 2200(a)(3), and was calculated as Fill and Excavation Discharges, with the dredge and fill fee calculator.

¹ Includes only temporary direct impacts to waters of the state and does not include upland areas of temporary disturbance which could result in a discharge to waters of the state.

² Cubic Yards (CY); Linear Feet (LF)

Table 2: Record of Fees Received		
Date Received	Check No.	Amount
August 31, 2018	345904	\$1,500
November 5, 2018	347116	\$18,402
		Total: \$19,902

XII. Conditions

The Los Angeles Water Board has independently reviewed the record of the Project to analyze impacts to water quality and designated beneficial uses within the watersheds of the Project. In accordance with this Order, the Permittee may proceed with the Project under the following terms and conditions:

A. Authorization

Impacts to waters of the state shall not exceed quantities shown in Table 1.

B. Reporting and Notification Requirements

Requirements for the content of these reporting and notification types are detailed in Attachment C, including specifications for photo and map documentation during the Project. Written reports and notifications must be submitted using the Reporting and Notification Cover Sheet located in Attachment C, which must be signed by the Permittee or an authorized representative.

1. Project Reporting

- a. **Annual Reporting:** The Permittee shall submit an Annual Report each year on the anniversary of Project effective date. Annual Reporting requirements are detailed in Attachment C. Annual reporting shall continue until a Notice of Project Complete Letter is issued to the Permittee.

2. Project Status Notifications

- a. **Request for Notice of Completion of Discharges Letter:** The Permittee shall submit a Request for Notice of Completion of Discharges Letter following completion of active Project construction activities, including any required restoration and permittee-responsible mitigation. This request shall be submitted to the Los Angeles Water Board staff within thirty (30) days following completion of all Project construction activities. Upon acceptance of the request, Los Angeles Water Board staff shall issue a Notice of Completion of Discharges Letter to the Permittee which will end the active discharge period and associated annual fees.
- b. **Request for Notice of Project Complete Letter:** The Permittee shall submit a Request for Notice of Project Complete Letter when construction and/or any post-

construction monitoring is complete,³ and no further Project activities will occur. This request shall be submitted to Los Angeles Water Board staff within thirty (30) days following completion of all Project activities. Upon approval of the request, the Los Angeles Water Board staff shall issue a Notice of Project Complete Letter to the Permittee which will end the post discharge monitoring period and associated annual fees.

3. Conditional Notifications and Reports: The following notifications and reports are required as appropriate.

a. Accidental Discharges of Hazardous Materials⁴

Following an accidental discharge of a reportable quantity of a hazardous material, sewage, or an unknown material, the following applies (Wat. Code, § 13271):

- i. As soon as (A) Permittee has knowledge of the discharge or noncompliance, (B) notification is possible, and (C) notification can be provided without substantially impeding cleanup or other emergency measures then:
 - first call – 911 (to notify local response agency)
 - then call – Office of Emergency Services (OES) State Warning Center at: (800) 852-7550 or (916) 845-8911
 - Lastly, follow the required OES procedures as set forth in:
[http://www.caloes.ca.gov/FireRescueSite/Documents/CalOES-Spill Booklet Feb2014 FINAL BW Acc.pdf](http://www.caloes.ca.gov/FireRescueSite/Documents/CalOES-Spill%20Booklet%20Feb2014%20FINAL%20BW%20Acc.pdf)
- ii. Following notification to OES, the Permittee shall notify Los Angeles Water Board, as soon as practicable (ideally within 24 hours). Notification may be via telephone, e-mail, or delivered written notice.
- iii. Within five (5) working days of notification to the Los Angeles Water Board, the Permittee must submit an Accidental Discharge of Hazardous Material Report.

b. Violation of Compliance with Water Quality Standards: The Permittee shall notify the Los Angeles Water Board of any event causing a violation of compliance with water quality standards. Notification may be via telephone, e-mail, or delivered written notice.

- i. Examples of noncompliance events include: lack of any reporting in a timely manner, lack of storm water treatment following a rain event, discharges causing a visible plume in a water of the state, water contact with uncured

³ Completion of post-construction monitoring shall be determined by Los Angeles Water Board staff and shall be contingent on successful attainment of restoration and mitigation performance criteria.

⁴ "Hazardous material" means any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment. (Health & Saf. Code, § 25501.)

concrete, and exceedances of limits for the analytes for *In-Water Work or Diversions* listed below.

- ii. This notification must be followed within three (3) working days by submission of a Violation of Compliance with Water Quality Standards Report.

c. Modifications to Project

Project modifications may require an amendment of this Order. The Permittee shall give advance notice to Los Angeles Water Board staff if Project implementation as described in the application materials is altered in any way or by the imposition of subsequent permit conditions by any local, state or federal regulatory authority by submitting a Modifications to Project Report. The Permittee shall inform Los Angeles Water Board staff of any Project modifications that will interfere with the Permittee's compliance with this Order.

d. Transfer of Property Ownership: This Order is not transferable in its entirety or in part to any person or organization except after notice to the Los Angeles Water Board in accordance with the following terms:

- i. The Permittee must notify the Los Angeles Water Board of any change in ownership or interest in ownership of the Project area by submitting a Transfer of Property Ownership Report. The Permittee and purchaser must sign and date the notification and provide such notification to the Los Angeles Water Board at least 10 days prior to the transfer of ownership.
- ii. Until such time as this Order has been modified to name the purchaser as the permittee, the Permittee shall continue to be responsible for all requirements set forth in this Order.

C. Water Quality Monitoring

1. **General:** If surface water is present, continuous visual surface water monitoring shall be conducted to detect accidental discharge of construction related pollutants (e.g. oil and grease, turbidity plume, or uncured concrete).
2. **Accidental Discharges/Noncompliance:** Upon occurrence of an accidental discharge of hazardous materials or a violation of compliance with a water quality standard, Los Angeles Water Board staff may require water quality monitoring based on the discharge constituents and/or related water quality objectives and beneficial uses.

D. Standard

1. This Order is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to Water Code section 13330, and California Code of Regulations, title 23, chapter 28, Article 6 commencing with sections 3867-3869, inclusive. Additionally, the Los Angeles Water Board reserves the right to suspend, cancel, or modify and reissue this Order, after providing notice to the Permittee, if the Los Angeles Water Board determines that: the Project fails to comply with any of the conditions of this Order; or, when necessary to implement any new or revised water quality standards and implementation plans adopted or approved pursuant

to the Porter-Cologne Water Quality Control Act (Wat. Code, § 13000 et seq.) or federal Clean Water Act section 303 (33 U.S.C. § 1313). For purposes of Clean Water Act section 401(d), the condition constitutes a limitation necessary to assure compliance with water quality standards and appropriate requirements of state law.

2. This Order is not intended and shall not be construed to apply to any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license, unless the pertinent certification application was filed pursuant to subsection 3855(b) of chapter 28, title 23 of the California Code of Regulations, and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
3. This Order is conditioned upon total payment of any fee required under title 23 of the California Code of Regulations and owed by the Permittee.
4. In the event of any violation or threatened violation of the conditions of this Order, the violation or threatened violation shall be subject to any remedies, penalties, process, or sanctions as provided for under state and federal law. For purposes of Clean Water Act, section 401(d), the applicability of any state law authorizing remedies, penalties, processes, or sanctions for the violation or threatened violation constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements incorporated into this Order.

E. General Compliance

1. Failure to comply with any condition of this Order shall constitute a violation of the Porter-Cologne Water Quality Control Act and the Clean Water Act. The Permittee and/or discharger may then be subject to administrative and/or civil liability pursuant to Water Code section 13385.
2. Permitted actions must not cause a violation of any applicable water quality standards, including impairment of designated beneficial uses for receiving waters as adopted in the Basin Plans by any applicable Los Angeles Water Board or any applicable State Water Board (collectively Water Boards) water quality control plan or policy. The source of any such discharge must be eliminated as soon as practicable.
3. In response to a suspected violation of any condition of this Order, the Los Angeles Water Board may require the holder of this Order to furnish, under penalty of perjury, any technical or monitoring reports the Water Boards deem appropriate, provide that the burden, including costs, of the reports shall bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. The additional monitoring requirements ensure that permitted discharges and activities comport with any applicable effluent limitations, water quality standards, and/or other appropriate requirement of state law.
4. The Permittee must, at all times, fully comply with engineering plans, specifications, and technical reports submitted to support this Order; and all subsequent submittals required as part of this Order. The conditions within this Order and Attachments supersede conflicting provisions within Permittee submittals.

5. This Order and all of its conditions contained herein continue to have full force and effect regardless of the expiration or revocation of any federal license or permit issued for the Project. For purposes of Clean Water Act, section 401(d), this condition constitutes a limitation necessary to assure compliance with the water quality standards and other pertinent requirements of state law.
6. **Construction General Permit Requirement:** If enrolled, the Permittee shall maintain compliance with conditions described in, and required by, NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-009-DWQ and NPDES No. CAS 000002 as amended by Order No. 2010-0014-DWQ, Order No. 2012-0006-DWQ, and any amendments thereto) (General Construction Permit).

F. Administrative

1. Signatory requirements for all document submittals required by this Order are presented in Attachment B of this Order.
2. This Order does not authorize any act which results in the taking of a threatened, endangered or candidate species or any act, which is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish & G. Code, §§ 2050-2097) or the federal Endangered Species Act (16 U.S.C. §§ 1531-1544). If a "take" will result from any act authorized under this Order held by the Permittee, the Permittee must obtain authorization for the take prior to any construction or operation of the portion of the Project that may result in a take. The Permittee is responsible for meeting all requirements of the applicable endangered species act for the Project authorized under this Order.
3. The Permittee shall grant Los Angeles Water Board staff, or an authorized representative (including an authorized contractor acting as a Water Board representative), upon presentation of credentials and other documents as may be required by law, permission to:
 - a. Enter upon the Project or compensatory mitigation site(s) premises where a regulated facility or activity is located or conducted, or where records are kept.
 - b. Have access to and copy any records that are kept and are relevant to the Project or the requirements of this Order.
 - c. Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order.
 - d. Sample or monitor for the purposes of assuring Order compliance.
4. A copy of this Order shall be provided to any consultants, contractors, and subcontractors working on the Project. Copies of this Order shall remain at the Project site for the duration of this Order. The Permittee shall be responsible for work conducted by its consultants, contractors, and any subcontractors.
5. A copy of this Order must be available at the Project site(s) during construction for review by site personnel and agencies. All personnel performing work on the Project shall be familiar with the content of this Order and its posted location at the Project site.

6. This Order shall expire **five (5) years** from date of this Order. The Applicant shall submit a complete application at least 90 days prior to termination of this Order if renewal is requested.

G. Best Management Practices

1. The construction limits at the landing site will be clearly marked with high-visibility construction fencing prior to any ground-disturbing or construction-related activities. The remaining construction areas along the terrestrial conduit route will be delineated with cones. Per the Project's Mitigation Monitoring and Reporting Plan (MMRP), TBI0-1, sensitive habitat for the El Segundo Blue Butterfly will be delineated and flagged prior to the start of construction in those areas. Vegetation will be avoided by using directional drilling at the beach and construction within the paved right-of-ways elsewhere.
2. Measures will be implemented to prevent erosion from sand, soil or rock stockpiles, excavated materials, and excess soil materials into sensitive areas outside of the construction limits as a result of stormwater runoff.
3. Preconstruction surveys for active migratory bird nests will occur within 14 days of the start of construction activities along all areas of ground disturbance if construction activities in these areas occur between February 1 and August 31 (the period covering the nesting season for most birds).
4. If active nest sites are identified within 500 feet of Project-related activities, the Project shall impose a no disturbance buffer zone for all active nest sites prior to commencement of any Project-related construction activities to avoid construction or access-related disturbances to migratory bird nesting activities. Activities permitted within and the size of the no disturbance buffer shall be established by a qualified biologist based on the birds' behavior, nest location, surrounding landscape features, and proposed site activities.
5. If the beach landing site is in a Special Protection Zone then activities will not be allowed until western snowy plovers are no longer present.
6. If the area is not within a Special Protection Zone, a biologist trained in recognizing western snowy plover will conduct a survey of the sites to determine if plovers are present. The biologist will be present to monitor the establishment of the beach landing site to ensure that no western snowy plovers are injured or killed.
7. The site will include fencing/walls that will prevent western snowy plovers from entering the work areas. The biologist will conduct weekly site visits to ensure that fence/walls are intact until construction activities are finished at the sites and all equipment is removed from the beach.
8. All drivers of vehicles and machinery that are operated on sections of beach where snowy plovers may be found will be trained in snowy plover avoidance.
9. Vehicles will avoid operating within Special Protection Zones. Vehicles simply transiting between points will not be allowed within these areas.
10. Visible markers, will be placed at the inland corners of any Special Protection Zones adjacent to the beach landing construction sites to remind vehicle operators of their presence.

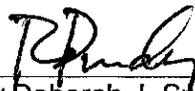
11. A spill prevention control and countermeasures (SPCC) plan will be developed prior to beginning construction at the beach site. The SPCC plan will identify the appropriate spill containment measures that will be employed throughout project construction.
12. Grapnel will not be deployed over hard bottom areas crossed by the cable routes.
13. Vessels will generally be operating at relatively low speeds during the proposed project, allowing mobile species to avoid project vessels.
14. Monitoring by a biologist familiar with federally protected marine mammal and sea turtle behavior will be conducted during all project activities that occur within the continental shelf of California.
15. In the event that marine mammals or sea turtles are present in the immediate area of the project vessels or are approaching the work area such that interactions may occur, the biologist will have the authority to halt vessel operations until any risk of collision has passed.
16. Vessels operating within 100 meters of federally protected species will modify operations and implement the following measures to reduce the potential for an adverse interaction with federally protected species:
 - a. Vessels shall maintain a minimum distance of 100 meters from the sighting location, when feasible.
 - b. Vessels shall not be permitted to cross directly in front of, or intersect, the path of sighted individuals.
 - c. If federally protected species are passing alongside the ship, the vessel operator shall maintain a steady heading and constant speed that is not faster than the sighted individuals' speed.
 - d. If sighted individuals demonstrate defensive or disturbed actions, the vessel shall slow, or be taken out of gear, until the animal calms and/or moves a safe distance away from the vessel.
 - e. If federally protected species come within 100 meters of the vessels during installation, the crew will have the authority to suggest modifications in vessel operations and installation until the animal moves safely out of the area and remains unobserved for 15 minutes.
17. Computerized modeling and tracking will be utilized to control position and tension of the cable during laying activities, as well as correct for external factors such as wind and ocean currents.
18. The project shall comply with the local regulations associated with the Los Angeles Water Board's Municipal Stormwater Permit issued to Los Angeles County and co-permittees under NPDES No. CAS004001 and Waste Discharge Requirements Order No. R4-2012-0175.
19. If not enrolled in the General Construction Permit, the Permittee shall develop and implement a site-specific Storm Water Pollution Prevention Plan (SWPPP) and a Rain Event Action Plan (REAP) as described in the General Construction Permit.

XIII. Water Quality Certification

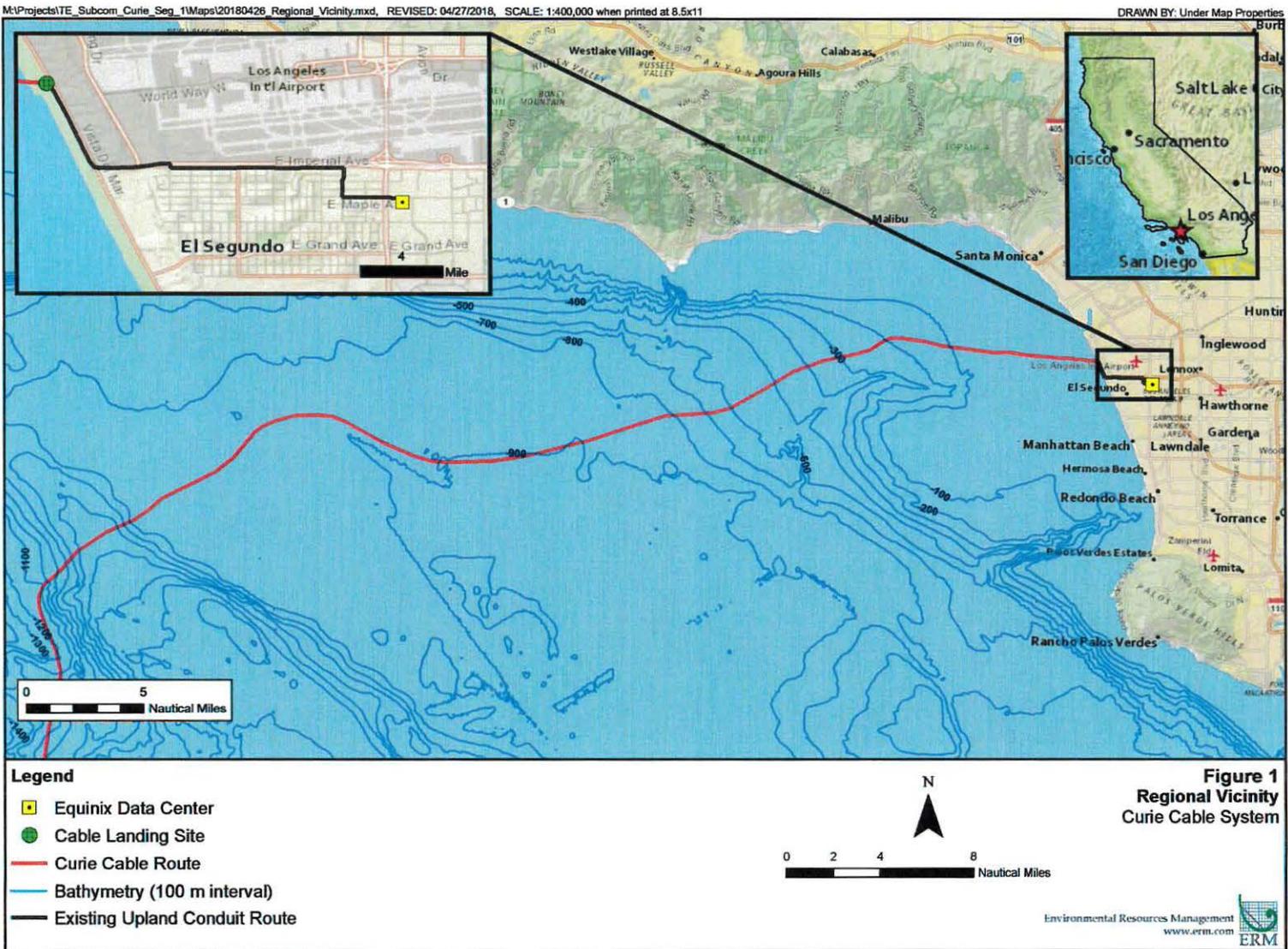
I hereby issue the Order for the Curie Cable System Project, 4WQC40118102 certifying that as long as all of the conditions listed in this Order are met, any discharge from the referenced Project will comply with the applicable provisions of Clean Water Act sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 303 (Water Quality Standards and Implementation Plans), 306 (National Standards of Performance), and 307 (Toxic and Pretreatment Effluent Standards).

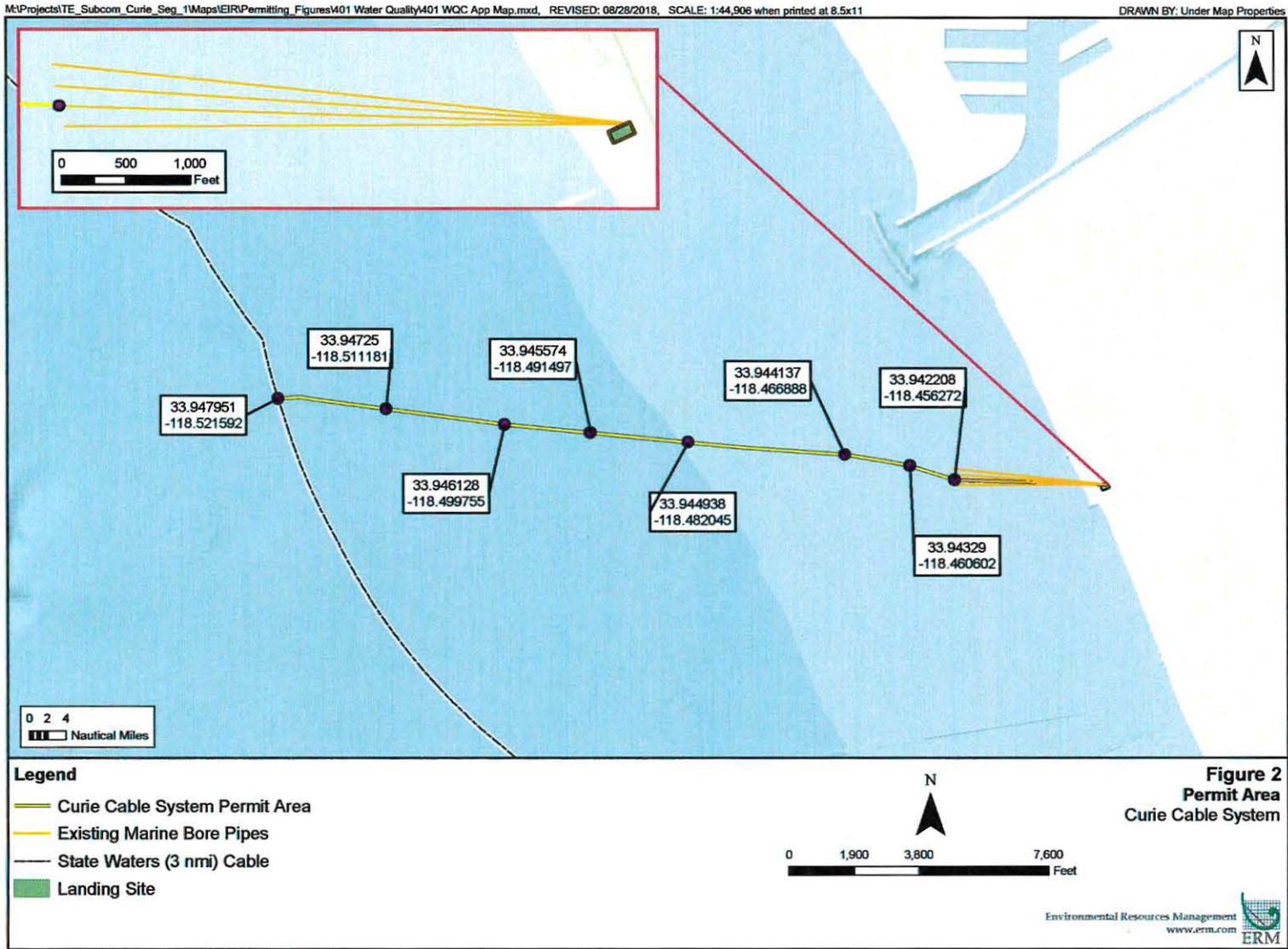
This discharge is also regulated pursuant to State Water Board Water Quality Order No. 2003-0017-DWQ which authorizes this Order to serve as Waste Discharge Requirements pursuant to the Porter-Cologne Water Quality Control Act (Wat. Code, § 13000 et seq.).

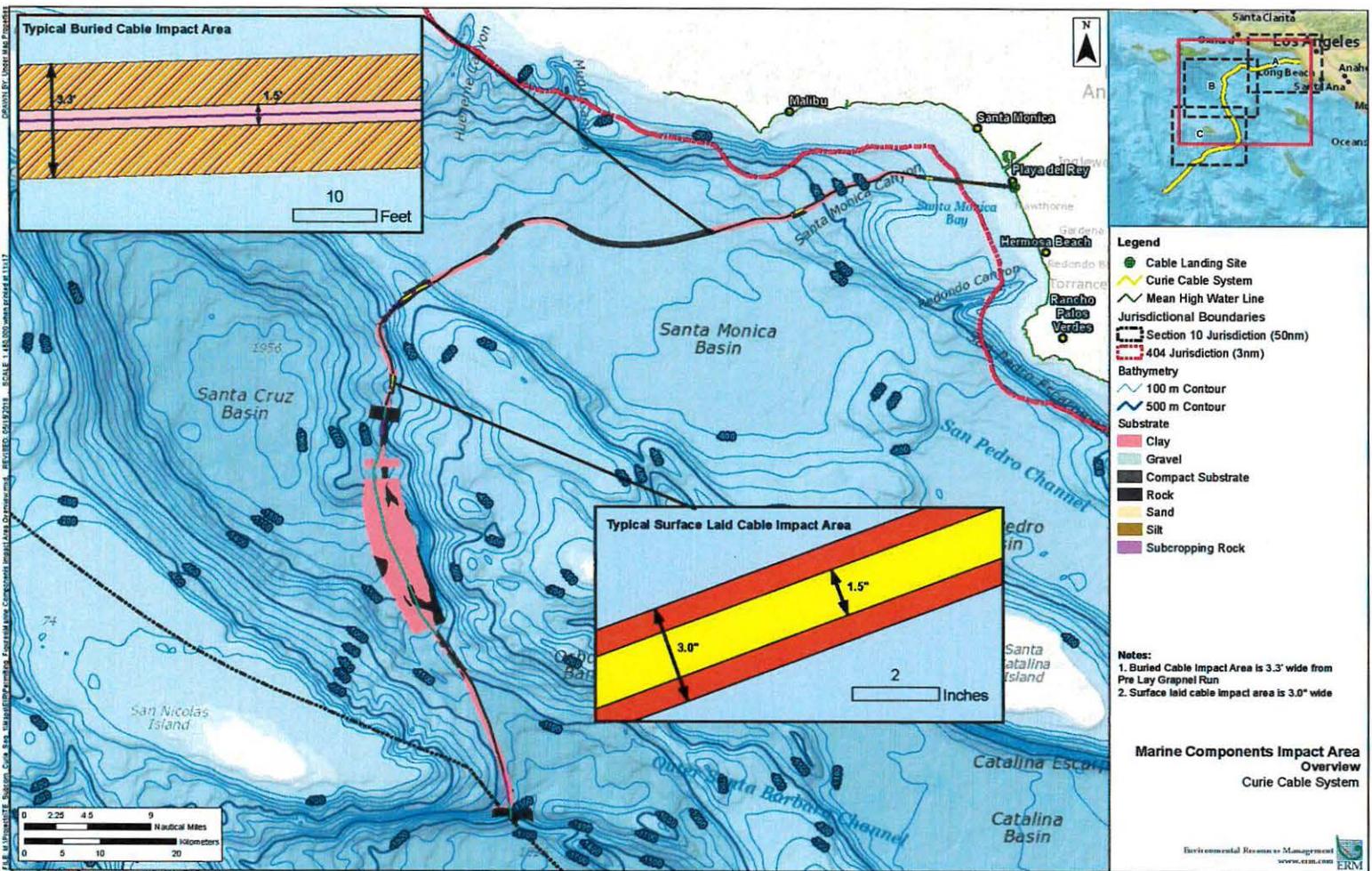
Except insofar as may be modified by any preceding conditions, all Order actions are contingent on: (a) the discharge being limited and all proposed mitigation being completed in strict compliance with the conditions of this Order and the attachments to this Order; and, (b) compliance with all applicable requirements of Statewide Water Quality Control Plans and Policies, the Regional Water Boards' Water Quality Control Plans and Policies.

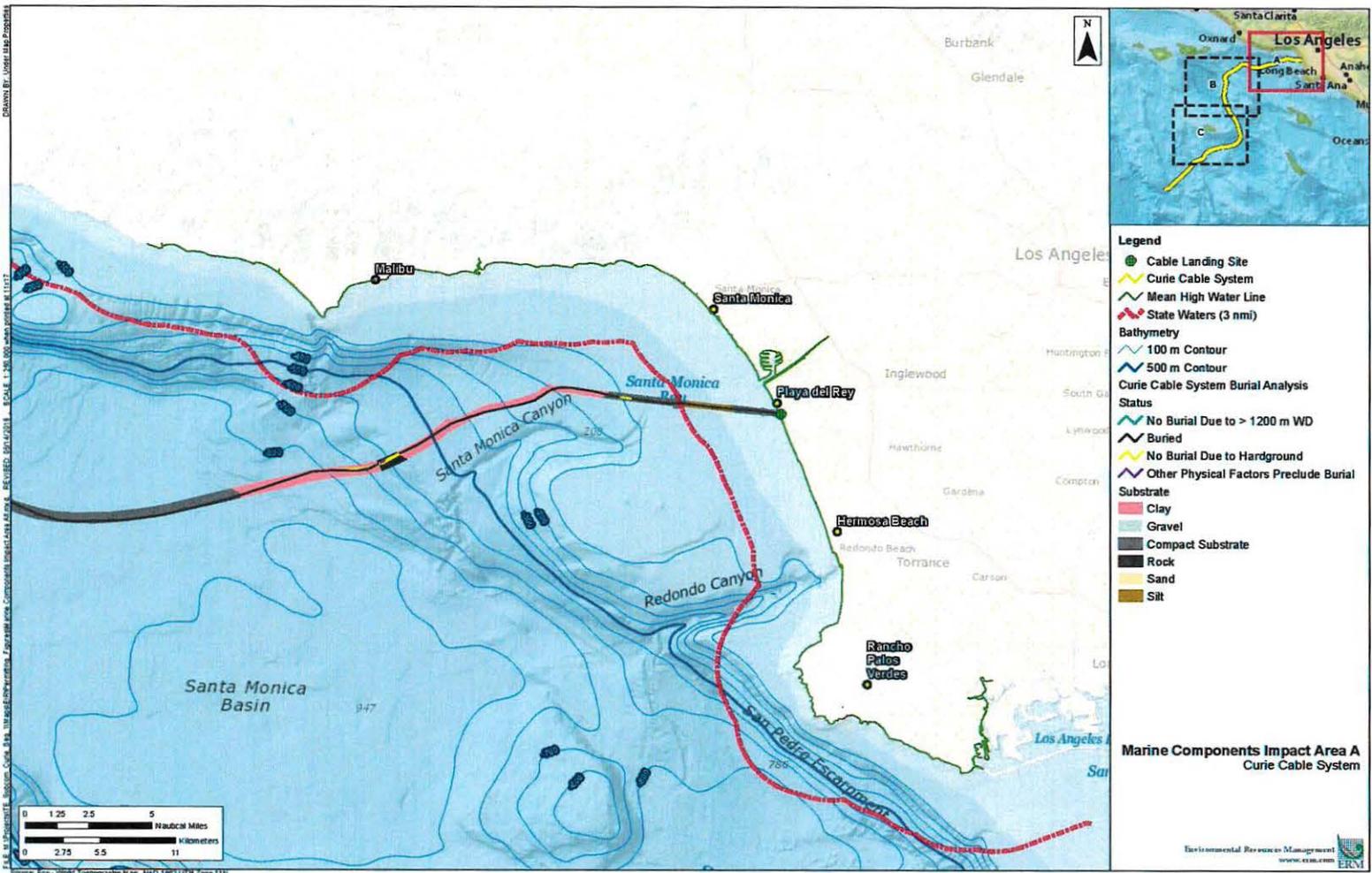

for Deborah J. Smith
Executive Officer
Los Angeles Water Quality Control Board

12/18/18
Date









Attachment B
Signatory Requirements

SIGNATORY REQUIREMENTS

*All Documents Submitted In Compliance With This Order
Shall Meet The Following Signatory Requirements:*

1. All applications, reports, or information submitted to the Los Angeles Water Quality Control Board (Los Angeles Water Board) must be signed and certified as follows:
 - a) For a corporation, by a responsible corporate officer of at least the level of vice-president.
 - b) For a partnership or sole proprietorship, by a general partner or proprietor, respectively.
 - c) For a municipality, or a state, federal, or other public agency, by either a principal executive officer or ranking elected official.

2. A duly authorized representative of a person designated in items 1.a through 1.c above may sign documents if:
 - a) The authorization is made in writing by a person described in items 1.a through 1.c above.
 - b) The authorization specifies either an individual or position having responsibility for the overall operation of the regulated activity.
 - c) The written authorization is submitted to the Los Angeles Water Board Staff Contact prior to submitting any documents listed in item 1 above.

3. Any person signing a document under this section shall make the following certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

Attachment C
Report and Notification Requirements

Copies of this Form

Include a copy of the Project specific Cover Sheet below with your report: please retain a copy for your records.

Report Submittal Instructions

1. Check the box on the Report and Notification Cover Sheet next to the report or notification you are submitting.
 - **Part A (Annual Report):** This report will be submitted annually from the anniversary of Project effective date until a Notice of Project Complete Letter is issued.
 - **Part B (Project Status Notifications):** Used to notify the Los Angeles Water Board of the status of the Project schedule that may affect Project billing.
 - **Part C (Conditional Notifications and Reports):** Required on a case by case basis for accidental discharges of hazardous materials, violation of compliance with water quality standards, notification of in-water work, or other reports.
2. Sign the Report and Notification Cover Sheet and attach all information requested for the Report Type.
3. **Electronic Report Submittal Instructions:**
 - Submit signed Report and Notification Cover Sheet and required information via email to: Valerie.CarrilloZara@waterboards.ca.gov
 - Include in the subject line of the email:
Subject: ATTN: Valerie CarrilloZara ; File No: 18-102, Reg. Measure ID: 425405 Report

Definition of Reporting Terms

1. **Active Discharge Period:** The active discharge period begins with the effective date of this Order and ends on the date that the Permittee receives a Notice of Completion of Discharges Letter or, if no post-construction monitoring is required, a Notice of Project Complete Letter. The Active Discharge Period includes all elements of the Project including site construction and restoration, and any Permittee responsible compensatory mitigation construction.
2. **Request for Notice of Completion of Discharges Letter:** This request by the Permittee to the Los Angeles Water Board staff pertains to projects that have post construction monitoring requirements, e.g. if site restoration was required to be monitored for 5 years following construction. Los Angeles Water Board staff will review the request and send a Completion of Discharges Letter to the Permittee upon approval. This letter will initiate the post-discharge monitoring period and a change in fees from the annual active discharge fee to the annual post-discharge monitoring fee.

3. **Request for Notice of Project Complete Letter:** This request by the Permittee to the Los Angeles Water Board staff pertains to projects that either have completed post-construction monitoring and achieved performance standards or have no post-construction monitoring requirements, and no further Project activities are planned. Los Angeles Water Board staff will review the request and send a Project Complete Letter to the Permittee upon approval. Termination of annual invoicing of fees will correspond with the date of this letter.
4. **Post-Discharge Monitoring Period:** The post-discharge monitoring period begins on the date of the Notice of Completion of Discharges Letter and ends on the date of the Notice of Project Complete Letter issued by the Los Angeles Water Board staff. The Post-Discharge Monitoring Period includes continued water quality monitoring or compensatory mitigation monitoring.
5. **Effective Date:** Date of Order issuance.

Map/Photo Documentation Information

When submitting maps or photos, please use the following formats.

1. **Map Format Information:**

Preferred map formats of at least 1:24000 (1" = 2000') detail (listed in order of preference):

- **GIS shapefiles:** The shapefiles must depict the boundaries of all project areas and extent of aquatic resources impacted. Each shape should be attributed with the extent/type of aquatic resources impacted. Features and boundaries should be accurate to within 33 feet (10 meters). Identify datum/projection used and if possible, provide map with a North American Datum of 1983 (NAD38) in the California Teale Albers projection in feet.
 - **Google KML files** saved from Google Maps: My Maps or Google Earth Pro. Maps must show the boundaries of all project areas and extent/type of aquatic resources impacted. Include URL(s) of maps. If this format is used include a spreadsheet with the object ID and attributed with the extent/type of aquatic resources impacted.
 - **Other electronic format** (CAD or illustration format) that provides a context for location (inclusion of landmarks, known structures, geographic coordinates, or USGS DRG or DOQQ). Maps must show the boundaries of all project areas and extent/type of aquatic resources impacted. If this format is used include a spreadsheet with the object ID and attributed with the extent/type of aquatic resources impacted.
 - Aquatic resource maps marked on paper **USGS 7.5 minute topographic maps** or **Digital Orthophoto Quarter Quads (DOQQ)** printouts. Maps must show the boundaries of all project areas and extent/type of aquatic resources impacted. If this format is used include a spreadsheet with the object ID and attributed with the extent/type of aquatic resources impacted.
2. **Photo-Documentation:** Include a unique identifier, date stamp, written description of photo details, and latitude/longitude (in decimal degrees) or map indicating location of photo. Successive photos should be taken from the same vantage point to compare pre/post construction conditions.

REPORT AND NOTIFICATION COVER SHEET

Project: Curie Cable System Project

Permittee: Tyco Electronics Subsea Communications

Reg. Meas. ID: 425405 **Place ID:** 851245 **File No:** 18-102

Report Type Submitted

Part A – Project Reporting

Report Type **Annual Report**

Part B - Project Status Notifications

Report Type **Commencement of Construction**

Report Type **Request for Notice of Completion of Discharges Letter**

Report Type **Request for Notice of Project Complete Letter**

Part C - Conditional Notifications and Reports

Report Type **Accidental Discharge of Hazardous Material Report**

Report Type **Violation of Compliance with Water Quality Standards Report**

Report Type **In-Water Work/Diversions Water Quality Monitoring Report**

Report Type **Modifications to Project Report**

Report Type **Transfer of Property Ownership Report**

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

Print Name ¹

Affiliation and Job Title

Signature

Date

¹STATEMENT OF AUTHORIZATION (include if authorization has changed since application was submitted)

I hereby authorize _____ to act in my behalf as my representative in the submittal of this report, and to furnish upon request, supplemental information in support of this submittal.

Permittee's Signature

Date

***This Report and Notification Cover Sheet must be signed by the Permittee or a duly authorized representative and included with all written submittals.**

Part A – Project Reporting

Report Type	Annual Report
Report Purpose	Notify the Los Angeles Water Board staff of Project status during both the active discharge and post-discharge monitoring periods.
When to Submit	Annual reports shall be submitted each year on the anniversary of Project effective date. Annual reports shall continue until a Notice of Project Complete Letter is issued to the Permittee.
Report Contents	<p>The contents of the annual report shall include the topics indicated below for each project period. Report contents are outlined in Annual Report Topics below.</p> <p><u>During the Active Discharge Period</u></p> <ul style="list-style-type: none"> • Topic 1: Construction Summary • Topic 2: Mitigation for Temporary Impacts Status • Topic 3: Compensatory Mitigation for Permanent Impacts Status <p><u>During the Post-Discharge Monitoring Period</u></p> <ul style="list-style-type: none"> • Topic 2: Mitigation for Temporary Impacts Status • Topic 3: Compensatory Mitigation for Permanent Impacts Status
Annual Report Topics (1-3)	
Annual Report Topic 1	Construction Summary
When to Submit	With the annual report during the Active Discharge Period.
Report Contents	<ol style="list-style-type: none"> 1. Project progress and schedule including initial ground disturbance, site clearing and grubbing, road construction, site construction, and the implementation status of construction storm water best management practices (BMPs). If construction has not started, provide estimated start date and reasons for delay. 2. Color photos, pre-project and current. 3. Map showing general Project progress. 4. If applicable: <ol style="list-style-type: none"> a. Summary of any conditional reports sent during the year such as “Accidental Discharge of Hazardous Material Report” or “Accidental Discharge of Hazardous Material Report” b. Copies of revised permits from other agencies c. Compilation of all water quality monitoring results for the year in a spreadsheet format.
Annual Report Topic 2	Mitigation for Temporary Impacts Status
When to Submit	With the annual report during both the Active Discharge Period and Post-Discharge Monitoring Period.

Report Contents	<p>*If not applicable report N/A.</p> <ol style="list-style-type: none"> 1. Planned date of initiation and map showing locations of mitigation for temporary impacts to waters of the state and all upland areas of temporary disturbance which could result in a discharge to waters of the state. 2. If mitigation for temporary impacts has already commenced, provide a map and information concerning attainment of mitigation success.
Annual Report Topic 3	Compensatory Mitigation for Permanent Impacts Status
When to Submit	With the annual report during both the Active Discharge Period and Post-Discharge Monitoring Period.
Report Contents	<p>*If not applicable report N/A.</p> <p>Part A. Permittee Responsible</p> <ol style="list-style-type: none"> 1. Planned date of initiation of compensatory mitigation site installation. 2. If installation is in progress, a map of what has been completed to date. 3. If the compensatory mitigation site has been installed, provide a final map and information concerning attainment of performance standards contained in the compensatory mitigation plan. <p>Part B. Mitigation Bank or In-Lieu Fee</p> <ol style="list-style-type: none"> 1. Status or proof of purchase of credit types and quantities. 2. Include the name of bank/ILF Program and contact information. 3. If ILF, location of project and type if known.

Part B – Project Status Notifications

Report Type	Request for Notice of Completion of Discharges Letter
Report Purpose	Notify Los Angeles Water Board staff that post-construction monitoring is required and that active Project construction, including any mitigation and permittee responsible compensatory mitigation, is complete.
When to Submit	Must be received by Los Angeles Water Board staff within thirty (30) days following completion of all Project construction activities.
Report Contents	<ol style="list-style-type: none"> 1. Pre- and post-photo documentation of all Project activity sites where the discharge of dredge and/or fill/excavation was authorized. 2. An updated monitoring schedule for mitigation for temporary impacts to waters of the state and permittee responsible compensatory mitigation during the post-discharge monitoring period, if applicable.

Report Type	Request for Notice of Project Complete Letter
Report Purpose	Notify Los Angeles Water Board staff that construction and/or any post-construction monitoring is complete, or is not required, and no further Project activity is planned.

When to Submit	Must be received by Los Angeles Water Board staff within thirty (30) days following completion of all Project activities.
Report Contents	<p>Part A: Mitigation for Temporary Impacts</p> <ol style="list-style-type: none"> 1. A report establishing that areas of temporary impacts to waters of the state, and upland areas of temporary disturbance which could result in a discharge to waters of the state, have been successfully restored and all identified success criteria have been met. Pre- and post-photo documentation of all restoration sites. <p>Part B: Permittee Responsible Compensatory Mitigation</p> <ol style="list-style-type: none"> 2. A report establishing that the performance standards outlined in the compensatory mitigation plan have been met. 3. Status on the implementation of the long-term maintenance and management plan and funding of endowment. 4. Pre- and post-photo documentation of all compensatory mitigation sites. 5. Final maps of all compensatory mitigation areas (including buffers). <p>Part C: Post-Construction Storm Water BMPs</p> <ol style="list-style-type: none"> 6. Date of storm water permit Notice of Termination(s), if applicable. 7. Report status and functionality of all post-construction BMPs.

Part C – Conditional Notifications and Reports

Report Type	Accidental Discharge of Hazardous Material Report
Report Purpose	Notifies Los Angeles Water Board staff that an accidental discharge of hazardous material has occurred.
When to Submit	Within five (5) working days following the date of an accidental discharge. Continue reporting as required by Los Angeles Water Board staff.
Report Contents	<ol style="list-style-type: none"> 1. The report shall include the OES Incident/Assessment Form, a full description and map of the accidental discharge incident (i.e. location, time and date, source, discharge constituent and quantity, aerial extent, and photo documentation). If applicable, the OES Written Follow-Up Report may be substituted. 2. If applicable, any required sampling data, a full description of the sampling methods including frequency/dates and times of sampling, equipment, locations of sampling sites. 3. Locations and construction specifications of any barriers, including silt curtains or diverting structures, and any associated trenching or anchoring.

Report Type	Violation of Compliance with Water Quality Standards Report
Report Purpose	Notifies Los Angeles Water Board staff that a violation of compliance with water quality standards has occurred.
When to Submit	The Permittee shall report any event that causes a violation of water quality standards within three (3) working days of the noncompliance event notification to Los Angeles Water Board staff.

Report Contents	The report shall include: the cause; the location shown on a map; and the period of the noncompliance including exact dates and times. If the noncompliance has not been corrected, include: the anticipated time it is expected to continue; the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance; and any monitoring results if required by Los Angeles Water Board staff.
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Report Type	In-Water Work and Diversions Water Quality Monitoring Report
Report Purpose	Notifies Los Angeles Water Board staff of the completion of in-water work.
When to Submit	Within three (3) working days following the completion of in-water work. Continue reporting in accordance with the approved water quality monitoring plan.
Report Contents	As required by the approved water quality monitoring plan.

Report Type	Modifications to Project Report
Report Purpose	Notifies Los Angeles Water Board staff if the Project, as described in the application materials, is altered in any way or by the imposition of subsequent permit conditions by any local, state or federal regulatory authority.
When to Submit	Prior to any alteration or modification of Project activities.
Report Contents	A description and location of any alterations of Project activities. Identify any Project modifications that will interfere with the Permittee's compliance with the Order. Any alteration may require an Amendment, to be determined by Los Angeles Water Board staff.

Report Type	Transfer of Property Ownership Report
Report Purpose	Notifies Los Angeles Water Board staff of change in ownership of the Project or Permittee-responsible mitigation area.
When to Submit	At least 10 working days prior to the transfer of ownership.
Report Contents	<ol style="list-style-type: none"> 1. A statement that the Permittee has provided the purchaser with a copy of this Order and that the purchaser understands and accepts: <ol style="list-style-type: none"> a. the Order's requirements and the obligation to implement them or be subject to administrative and/or civil liability for failure to do so; b. responsibility for compliance with any long-term BMP¹ maintenance plan requirements in this Order. 2. A statement that the Permittee has informed the purchaser to submit a written request to the Los Angeles Water Board to be named as the permittee in a revised order.

¹ Best Management Practices (BMPs) is a term used to describe a type of water pollution or environmental control.