Sylmar Ground Return System Replacement Project

FINAL ENVIRONMENTAL IMPACT REPORT

SCH #2010091044 | July 2016

Prepared by :
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Technical Assistance Provided by:
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Final Environmental Impact Report

Sylmar Ground Return System Replacement Project

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CHAPTER 1: INTRODUCTION/OVERVIEW

1.1 PURPOSE OF THE FINAL ENVIRONMENTAL IMPACT REPORT

The purpose of this Final Environmental Impact Report (EIR) is to present agency and public comments received on the Draft EIR for the Sylmar Ground Return System (SGRS) Replacement Project (Project or proposed Project), as well as responses to those comments, as required under the California Environmental Quality Act (CEQA) Guidelines Section 15088.

State CEQA Guidelines, Section 15132 state that the Final EIR shall consists of:

- The Draft EIR or a revision of the Draft.
- Comments and recommendations received on the Draft EIR either verbatim or in summary.
- A list of persons, organizations, and public agencies that commented on the Draft EIR.
- The responses of the lead agency to significant environmental points raised in the review and consultation process.
- Any other information added by the lead agency.

Accordingly, the Final EIR for the SGRS Project consists of the Draft EIR and its technical appendices (incorporated herein by reference and not included in their entirety); agency and public review comments; the lead agency's response to those comments, included herein; and revisions to the Draft EIR, as provided in Chapter 3 of this Final EIR.

1.2 CEQA REQUIREMENTS FOR RESPONDING TO COMMENTS

State CEQA Guidelines Section 15088 state that the lead agency shall evaluate and prepare written responses to comments received during the noticed comment period. Responses must provide a reasoned analysis, supported by factual information. Responses to comments from public agencies must be provided to the agency at least 10 days prior to certification of an EIR. In accordance with CEQA Guidelines, the Los Angeles Department of Water and Power (LADWP), as the lead agency under CEQA for the SGRS Project, has evaluated all substantive comments received on the SGRS Draft EIR, and has prepared written responses to these comments (see Chapter 2 of this Final EIR). This document has been prepared in accordance with CEQA and represents the independent judgment of the lead agency.

1.3 PUBLIC REVIEW PROCESS

LADWP released the SGRS Draft EIR for public review and comment for the CEQA-mandated 45-day public review period, which began on March 10, 2016, and ended on April 25, 2016. In accordance with CEQA Guidelines Section 15085, a Notice of Completion (NOC) was filed with the State Clearinghouse on March 10, 2016. The Notice of Availability (NOA) of a Draft EIR was filed with the Los Angeles City and County Clerks on March 3, 2016, and March 10, 2016, respectively. A legal notice of availability of the Draft EIR was published in the *Los Angeles Times* on March 10, 2016.

Subsequent to the close of the Draft EIR review period, LADWP collected all comments received, provided a formal response to substantive issues related to the environmental analysis in the EIR raised during the public review process, and prepared this Final EIR.

The City of Los Angeles Board of Water and Power Commissioners (Board) will consider the SGRS Project for approval at a regularly scheduled meeting (the specific date of the meeting is to be announced). The Board will hold a public hearing regarding the proposed Project and must certify the Final EIR prior to making any decision regarding the approval of the Project.

The Board will consider all information in the record, including the Draft EIR, comments received on the Draft EIR, responses to comments, Findings of Fact, the Mitigation Monitoring and Reporting Program (MMRP), and any testimony, prior to making its decision. The Board will consider staff recommendations, including:

- A recommendation as to whether the Final EIR document has been completed in accordance with CEQA and should be certified by the Board;
- A recommendation regarding approval of the proposed project;
- A recommendation regarding adoption of the MMRP; and
- A recommendation regarding findings and possible conditions that may override significant environmental impacts of the project.

Should the Board approve the proposed Project, LADWP will file a Notice of Determination (NOD) with the Los Angeles City Clerk, the Los Angeles County Clerk, and the State Clearinghouse. The filing of the NOD would complete the CEQA environmental review process.

1.4 ORGANIZATION AND FORMAT OF THE FINAL EIR

The Responses to Comments document is organized as follows:

- **Chapter 1 – Introduction/Overview:** Provides a brief introduction of the Final EIR and the environmental review process, along with a summary of the Project and Project Alternatives.
- **Chapter 2 – Responses to Comments:** Provides a list of comment letters received on the Draft EIR and provides the lead agency's responses to those comments.
- **Chapter 3 – Errata to the Draft EIR:** Presents corrections, deletions, and additions to the Draft EIR, identifying revisions to the text of the document.
- **Appendix A –** Includes revised Figure 2-4, Proposed Electrode Array Conceptual Layout, revised to clarify the spacing between the vaults, and the overall dimensions of the array.
- **Appendix B –** Includes the MMRP required by CEQA Guidelines Section 15097.

1.5 SUMMARY OF THE PROPOSED PROJECT AND ALTERNATIVES

1.5.1 Proposed Project and Objectives

LADWP is proposing to replace the existing marine cables and the marine electrode portions of the SGRS. The replacement facility would be located in the vicinity of the existing SGRS marine facility in the Santa Monica Bay. The existing marine facility would be decommissioned and abandoned in place after the replacement marine facility is placed in service. While the new marine facility would be in a different alignment than the existing, it would serve the same purpose and function as the existing facility. The SGRS is an integral component of the Pacific Direct Current Intertie Transmission Line (PDCI), which transmits bulk power between Los Angeles and the Pacific Northwest. The PDCI is a 3,100-megawatt (MW) direct current system, and it cannot operate reliably without a ground return system. The SGRS functions as a safeguard to allow the PDCI to remain operational for a period of time when a fault occurs on the transmission line, thus preventing a complete outage of the line. The existing SGRS, which operates at a maximum 3,100 amps, runs from the Sylmar Converter Station in the San Fernando Valley in Los Angeles, California, into the Santa Monica Bay and terminates on the ocean floor approximately one mile offshore from the Pacific Palisades community of Los Angeles. The replacement project is proposed due to physical and operational deficiencies of the existing marine facility.

The proposed Project would be located primarily in Santa Monica Bay but would also include a small landside portion located in an existing parking lot on the south side of Pacific Coast Highway at Sunset Boulevard, where the existing Gladstone Vault is located. The Gladstone Vault is the termination point of the existing underground segment of the SGRS. The proposed SGRS marine cables would extend from the Gladstone Vault beneath Will Rogers State Beach and under the ocean floor to the proposed electrode array located in the Santa Monica Bay approximately two miles offshore. Figure ES-1 illustrates the proposed Project.

The purpose of the proposed Project is to replace the existing SGRS marine facility to ensure the continued reliable operation of the PDCI. The Project objectives related to this purpose are to:

- Increase the reliability and stability of the power generation and delivery system for Southern California;
- Continue to meet current and projected demand for power in the region; and
- Help increase the available share of renewable resource energy for the PDCI partners.

1.5.2 Environmental Impacts and Mitigation Measures

The Draft EIR for the Project was prepared in accordance with CEQA as amended (PRC Section 21000 et seq.) and the CEQA Guidelines as amended (CCR Section 15000 et seq.). The Draft EIR complies with the requirements of CEQA Guidelines Sections 15080 through 15097 regarding the EIR process.

The Draft EIR analyzed potentially significant environmental impacts of the proposed Project. The Draft EIR found that the proposed Project would not result in significant environmental impacts that could not be reduced to a less than significant level with implementation of mitigation measures, with the exception of temporary air quality impacts associated with construction activities, which would result in short-term unavoidable adverse impacts. Implementation of mitigation measures AIR-1 through AIR-3 would reduce air pollutant emissions during Project construction. However, reactive organic gases (ROG) and oxides of nitrogen (NOx) emissions reductions that can be achieved with these measures would not reduce emissions below the level of significance. No permanent significant impacts to air quality would result from Project operation.

Table 1-1 presents a brief summary of Project impacts, proposed Best Management Practices (BMPs) included as part of the proposed Project, Mitigation Measures (MMs) recommended to reduce Project impacts, and the expected status of the potential environmental effects following implementation of the mitigation measures (Table 1-1 reflects current information incorporated into the Draft EIR through errata, as indicated in Chapter 3 of this Final EIR). The BMPs and MMs serve to preclude, reduce, and/or fully mitigate potential environmental impacts.

1.5.3 Alternatives

In accordance with CEQA Guidelines Section 15126.6, alternatives to the proposed Project have been considered to foster informed decision-making and public participation. A range of alternatives were evaluated to identify means by which environmental impacts could be lessened to the extent practicable. Alternatives evaluated in the Draft EIR include:

- No Project Alternative
- Energy Conservation
- Replacement of PDCI with an Alternating Current Transmission Line
- Land-Based Electrode System
- Retrofit of Existing Electrode Array

- Long-Distance Directional Drilling
- Resiting of the Electrode Array and/or Marine Cable Route
- Removal of Existing SGRS Marine Facility

The evaluation of Project alternatives found that the No Project Alternative was technically feasible, but it would not meet any of the objectives identified for the proposed Project. This Alternative was found to be effectively infeasible due to the potentially severe consequences to the regional power generation and transmission system of not replacing the SGRS.

The Energy Conservation Alternative was found to be technically infeasible because the additional energy conservation at a level necessary to offset the capacity of the 3,100-MW PDCI (and, therefore, the need for the proposed Project) is considered infeasible.

The Replacement of PDCI with an Alternating Current Transmission Line Alternative and the Land-Based Electrode System Alternative were found to be technically achievable but due to substantially greater cost than the proposed Project were found to be economically infeasible. In addition, due to their broad scope, they would likely lead to greater environmental impacts than the proposed Project.

The Retrofit of Existing Electrode Array Alternative was found to be technically feasible in terms of constructability; however, it would be effectively infeasible due to risks associated with corrosive effects to underground infrastructure. In addition, it was found to create greater environmental impacts than the proposed Project.

The Long-Distance Directional Drilling Alternative was found to be technically infeasible for several reasons, but mainly due to the operational and safety conflicts created by the use of steel casing required for the long-distance horizontal drilling operation.

In accordance with Section 15126.6(e)(2) of the CEQA Guidelines, an EIR shall identify an environmentally superior alternative among the feasible alternatives, including the proposed Project. Among the alternatives considered, only Resiting of the Electrode Array and/or Marine Cable Route and Removing the Existing SGSR Marine Facility were deemed feasible. These alternatives would also meet all the proposed Project objectives. However, they would not eliminate or reduce impacts that would be caused by the proposed Project. Furthermore, the Resiting the Electrode Array and/or Marine Cable Route may result in increased impacts related to longer marine and/or landside cable installations, and the Removing the Existing SGSR Marine Facility Alternative would result in increased permanent and significant impacts to marine habitat and biota not created by the proposed Project. Therefore, the proposed Project is considered the environmentally superior alternative.

TABLE 1-1 SUMMARY OF PROJECT IMPACTS, BEST MANAGEMENT PRACTICES, AND MITIGATION MEASURES

POTENTIAL IMPACT	SIGNIFICANCE DETERMINATION	BEST MANAGEMENT PRACTICES / MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Air Quality/Greenhouse Gas Emissions			
Would the Project conflict with or obstruct implementation of the applicable air quality plan?	Less than significant	No mitigation is required.	N/A
Would the Project violate an air quality standard or contribute substantially to an existing or projected air quality violation?	Construction: Significant temporary and short-term reactive organic gases (ROG) and oxides of nitrogen (NOx) emissions Operation: Less than significant	Best Management Practices: BMP-1 Fugitive Dust Control Plan Construction of the Project would be subject to the South Coast Air Quality Management District's (SCAQMD) Rule 403, Fugitive Dust. In compliance with this rule, a dust control supervisor shall be identified for the Project and shall supervise implementation of the SCAQMD-approved dust control plan. The plan will itemize measures related to vehicle trackout, stabilizing soils, water application, and maintenance of soil moisture content. Mitigation Measures: AIR-1 Equipment Maintenance – All equipment shall be properly tuned and maintained in accordance with manufacturer's specifications. AIR-2 Equipment Operation – The contractor shall maintain and operate construction equipment to minimize exhaust emissions. During construction, trucks and vehicles will minimize idling when not in use to the extent feasible. AIR-3 Catalytic Converters – Catalytic converters shall be installed on all heavy construction equipment, where feasible.	Construction: Significant and unavoidable Impacts Operation: N/A
Would the Project result in a cumulatively considerable net increase of a criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard (including release emissions which exceed quantitative thresholds for ozone precursors)?	Less than significant	No mitigation is required.	N/A
Would the Project expose sensitive receptors to substantial pollutant concentrations including air toxics such as diesel particulates?	Less than significant	No mitigation is required.	N/A

POTENTIAL IMPACT	SIGNIFICANCE DETERMINATION	BEST MANAGEMENT PRACTICES / MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Would the Project create odors affecting a substantial number of people?	Less than significant	No mitigation is required.	N/A
Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Less than significant	No mitigation is required.	N/A
Biological Resources			
Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or United States Fish and Wildlife Service (USFWS)?	Construction: Significant impact related to potential for collision with marine mammals or sea turtles during construction Operation: Less than significant	Mitigation Measure: BIO-1 Marine Mammal and Sea Turtle Avoidance Practices 1. A biological monitor will be required on vessels and, when appropriate, in the water during construction activities within Santa Monica Bay and will have the authority in coordination with the Los Angeles Department of Water and Power (LADWP) to halt and redirect construction activities to avoid adverse impacts to marine wildlife. If a sea turtle or marine mammal is identified within 100 meters of the construction work zone, construction activity shall be temporarily halted until the sea turtle or marine mammal moves safely beyond this distance. 2. Construction and vessel crews will be trained to recognize and avoid marine mammals and sea turtles prior to initiation of Project construction activities. 3. Vessels involved in construction activities will maintain a steady course and slow speed. 4. Any collisions with marine wildlife will be reported promptly to state and federal resource agencies.	Construction: Less than significant Operation: N/A
Would the Project have a substantial adverse effect on habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS, or National Oceanic and Atmospheric Administration (NOAA)/ National Marine Fisheries Service (NMFS)?	Less than significant	Best Management Practices: BMP-2 Pre-Construction Survey A pre-construction survey utilizing a remotely operated vehicle (ROV) would be conducted to ensure that Project facilities (buried cables and electrode array) would be located within soft-bottom conditions, which is necessary for facilities installation but would also ensure avoidance of rocky reef and kelp habitat.	N/A

POTENTIAL IMPACT	SIGNIFICANCE DETERMINATION	BEST MANAGEMENT PRACTICES / MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Would the Project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	No impact	No mitigation is required.	N/A
Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	Construction: Significant impact related to potential for collision with marine mammals or sea turtles during construction Operation: Less than significant	Mitigation Measure: BIO-1 Marine Mammal and Sea Turtle Avoidance Practices 1. A biological monitor will be required on vessels and, when appropriate, in the water during construction activities within Santa Monica Bay and will have the authority in coordination with LADWP to halt and redirect construction activities to avoid adverse impacts to marine wildlife. If a sea turtle or marine mammal is identified within 100 meters of the construction work zone, construction activity shall be temporarily halted until the sea turtle or marine mammal moves safely beyond this distance. 2. Construction and vessel crews will be trained to recognize and avoid marine mammals and sea turtles prior to initiation of Project construction activities. 3. Vessels involved in construction activities will maintain a steady course and slow speed. 4. Any collisions with marine wildlife will be reported promptly to state and federal resource agencies.	Construction: Less than significant Operation: N/A
Would the Project conflict with any local policies or ordinances protecting biological resources, such as tree preservation or ordinance?	No impact	No mitigation is required.	N/A
Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?	No impact	No mitigation is required.	N/A
Would noise associated with the Project substantially impact marine biological resources?	Less than significant	No mitigation is required.	N/A

POTENTIAL IMPACT	SIGNIFICANCE DETERMINATION	BEST MANAGEMENT PRACTICES / MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Cultural Resources			
Would the Project cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the California Environmental Quality Act (CEQA) Guidelines; cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5; either directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; disturb any human remains, including those interred outside of formal cemeteries?	No Impact	<u>Best Management Practices:</u> BMP-3 Archaeological Resources Should previously unknown archaeological resources be found during project construction activities, all activities shall cease in the immediate area of the discovered resource. A project archaeologist shall be retained to first determine whether the resource discovered is a unique archaeological resource pursuant to Section 21083.2(g) of the California Public Resources Code (PRC) or a historical resource pursuant to Section 15064.5(a) of the CEQA Guidelines. If the archaeological resource is determined to be a unique archaeological resource or a historical resource, the archaeologist shall recommend disposition of the site and formulate a mitigation plan in consultation with LADWP and CSLC that satisfies the requirements of Section 21083.2 of the PRC and/or Section 15064.5 of the CEQA Guidelines. The final disposition of archaeological, historical, and paleontological resources recovered on State lands under the jurisdiction of the CSLC must be approved by the CSLC. If the archaeologist determines that the archaeological resource is not a unique archaeological resource or historical resource, the site will be recorded and the site form submitted to the California Historical Resource Information System (CHRIS) at the South Central Coastal Information Center (SCCIC). The archaeologist shall prepare a report of the results of any study prepared following accepted professional practice and guidelines of the California Office of Historic Preservation. Copies of the report shall be submitted to the CHRIS at the SCCIC. BMP-4 Human Remains In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found, the County Coroner shall be notified within 24 hours of the discovery. No further disturbance of the site or any nearby area reasonably suspected to overlie other remains shall occur until the Coroner has determined, within two working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the Coroner determines that the remains are or are believed to be Native American, the Coroner shall notify the Native American Heritage Commission (NAHC) in Sacramento within 48 hours. In accordance with PRC Section 5097.98, the NAHC must immediately notify those persons it believes to be the most likely descended from the deceased Native American. The descendants shall complete an inspection of the site within 48 hours of being granted access. The designated Native American representative shall then determine, in consultation with LADWP, the disposition of the human remains.	N/A

POTENTIAL IMPACT	SIGNIFICANCE DETERMINATION	BEST MANAGEMENT PRACTICES / MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Noise			
Would the Project result in exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	Construction: Less than significant construction-related noise impacts Operation: No impact	No mitigation is required.	N/A
Would the Project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	Construction: Less than significant construction-related vibration impacts Operation: No impact	No mitigation is required.	N/A
Would the Project result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project?	No impact	No mitigation is required.	N/A
Would the Project result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project?	Less than significant	No mitigation is required.	N/A
Would the Project expose people residing or working in the Project area to excessive noise levels related to a public airport or public use airport?	No impact	No mitigation is required.	N/A
Would the Project expose people residing or working in the Project area to excessive noise levels related to a private airstrip?	No impact	No mitigation is required.	N/A
Recreation and Fishing			
Would Project construction and operation activities result in a significant impact to recreational fishing and other water related recreational activities?	Less than significant	<u>Best Management Practices:</u> BMP-5 Marine Location Markings The position of the electrode array will be marked using surface buoys, and the United States Coast Guard (USCG) and other responsible entities will be notified of the position and as-built characteristics of the electrode array and underwater cables.	N/A

POTENTIAL IMPACT	SIGNIFICANCE DETERMINATION	BEST MANAGEMENT PRACTICES / MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
		BMP-6 Issuance of Notices Advance notice of construction activities shall be provided to local recreational and commercial boaters and fisherman through the USCG Notice to Mariners regarding the restrictions in the use of the Project area with sufficient lead-time for affected persons to plan for alternate times and places to perform offshore activities. In addition, LADWP shall post notices in the harbor master's offices at least 15 days in advance of in-water construction activities.	
Traffic and Transportation			
Would the Project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit; conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	No impact	No mitigation is required.	N/A
Would the Project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	No impact	No mitigation is required.	N/A
Would the Project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	No impact	No mitigation is required.	N/A
Would the Project result in inadequate emergency access or impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	No impact	No mitigation is required.	N/A

POTENTIAL IMPACT	SIGNIFICANCE DETERMINATION	BEST MANAGEMENT PRACTICES / MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
Would the Project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	No impact	No mitigation is required.	N/A
Water Quality			
Would the Project violate any water quality standards or waste discharge requirements; the Project would not otherwise substantially degrade water quality?	Construction: Less than significant Operation: Less than significant	Best Management Practices: BMP-7 Hazardous Materials As required by the Clean Air Act, Section 401 of the Clean Water Act, the Toxic Substance Control Act, and the Hazardous Materials Transportation Act, all vehicles, vessels, and equipment must be in proper working condition to avoid fugitive emissions or accidental release of motor oil, fuel, antifreeze, hydraulic fluid, grease, or other hazardous materials. To reduce potential for accidental spills and discharges that could impact water and sediment quality during construction, the following are recommended: Discharge of hazardous materials during construction activities into the Project area shall be prohibited. A comprehensive spill prevention control and countermeasure plan shall be developed that documents management practices that will be enacted to limit the potential for accidental spills. An environmental protection plan shall be developed that addresses issues related to storage and handling of fuel, waste disposal, equipment and vessel operation, and field policies. All debris and trash shall be disposed of in appropriate trash containers on land or on construction barges by the end of each construction day.	Construction: N/A Operation: N/A

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CHAPTER 2: RESPONSE TO COMMENTS

2.1 INTRODUCTION

This Chapter contains comments received on the SGRS Project Draft EIR received during the 45-day public review period, which began on March 10, 2016, and ended on April 25, 2016. During the public review period, four written comments were received from public agencies; no organizations or individuals provided comments on the Draft EIR.

According to CEQA Guidelines Section 15088(a), "the lead agency shall evaluate comments on environmental issues received from persons who reviewed the Draft EIR and shall prepare a written response." This chapter of the Final EIR provides the lead agency's responses to the comments received. Each comment letter is reproduced in its entirety and is followed by individual responses to each comment within the letter. Each comment is indicated by a line bracket and an identifying number in the margin of the comment letter (e.g., Letter 1, Response 1-1).

Any changes to the text of the Draft EIR that resulted from the comments are presented in Chapter 3 (Errata). None of the changes to the Draft EIR text represent significant new information, as defined by CEQA Guidelines Section 15088.5, and the conclusions of the EIR regarding significant impacts, alternatives, and mitigation measures remain unchanged.

2.2 WRITTEN COMMENTS AND RESPONSES

Table 2-1 provides a list of public agencies that submitted comments on the Draft EIR.

TABLE 2-1 COMMENTS RECEIVED FROM PUBLIC AGENCIES

LETTER	AGENCY	DATE
1	U.S. Army Corps of Engineers, Los Angeles District *Signed: Elizabeth R. Thomas, Regulatory Assistant*	March 23, 2016
2	California State Lands Commission *Signed: Cy R. Oggins, Chief*	April 25, 2016
3	State of California Governor's Office of Planning and Research State Clearinghouse *Signed: Scott Morgan*	April 26, 2016
4	State of California Governor's Office of Planning and Research State Clearinghouse *Signed: Scott Morgan*	April 26, 2016

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From:	Chung, Nancy
To:	Court Morgan 2764; Kim Quinn 2730; Jeff Fenner
Subject:	FW: Regulatory Permit May Be Required SPL-2016-00273-ERT LADWP (SCH#2010091044) Sylmar Ground Return System Replacement Project
Date:	Tuesday, April 26, 2016 10:06:10 AM

From: Thomas, Elizabeth SPL [mailto:Elizabeth.R.Thomas@usace.army.mil]
Sent: Wednesday, March 23, 2016 3:24 PM
To: Sylmar Ground Return Project
Cc: Thomas, Elizabeth SPL
Subject: Regulatory Permit May Be Required SPL-2016-00273-ERT LADWP (SCH#2010091044) Sylmar Ground Return System Replacement Project

Dear Ms. Chung:

Regulatory Permit May Be Required SPL-2016-00273-ERT LADWP (SCH#2010091044) Sylmar Ground Return System Replacement Project

Thank you for contacting the Army Corps of Engineers Regulatory Division.

The Corps' evaluation process for determining if you need a permit is based on whether or not the proposed project is located within or contains a water of the United States, and whether or not the proposed project includes an activity regulated under Section 10 of the River and Harbor Act or Section 404 of the Clean Water Act. If both conditions are met, a permit would be required.

1-1

To download a permit application form (ENG 4345) please visit our website:
http://www.spl.usace.army.mil/Missions/Regulatory/PermitProcess.aspx
For Nationwide Permits, please download the SPD (South Pacific Division) nationwide permit Preconstruction Notification (PCN) form.

For information and resources regarding jurisdiction, please see the Jurisdictional Determination:
http://www.spl.usace.army.mil/Missions/Regulatory/JurisdictionalDetermination.aspx

Elizabeth R. Thomas
Regulatory Assistant
North Coast Branch
Regulatory Division
U.S. Army Corps of Engineers, Los Angeles District
213-452-3897 (Ofc); 213-452-4196 (Fax)

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Response to Letter 1

U.S. Army Corps of Engineers, Los Angeles District
Elizabeth R. Thomas, Regulatory Assistant
March 23, 2016

Response 1-1

LADWP acknowledges the requirement for a permit from the U.S. Army Corps of Engineers in relation to Project activities that are regulated under Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act. To comply with these regulatory requirements, LADWP has submitted a Nationwide Permit Preconstruction Notification Form, along with supporting material, to the Regulatory Division of the Los Angeles District of the Corps, and is coordinating with the Regulatory Division on its completion and processing. No further issues related to the Draft EIR are raised in the comment, and, therefore, no further response is required.

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STATE OF CALIFORNIA EDMUND G. BROWN JR., *Governor*

CALIFORNIA STATE LANDS COMMISSION
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Established in 1938

April 25, 2016

File Ref: SCH # 2010091044

Nancy Chung
Los Angeles Department of Water and Power
P. O. Box 51111, Room 1044
Los Angeles, CA 90012

Subject: Revised Draft Environmental Impact Report (Draft EIR) for Sylmar Ground Return System Replacement Project, Los Angeles County

Dear Ms. Chung:

The California State Lands Commission (CSLC) staff has reviewed the subject Draft EIR for the Sylmar Ground Return System (SGRS) Replacement Project (Project), which is being prepared by the Los Angeles Department of Water and Power (LADWP). The LADWP, as the public agency proposing to carry out the Project, is the lead agency under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq. The CSLC is a trustee agency for projects that could directly or indirectly affect sovereign lands and their accompanying Public Trust resources or uses. Additionally, because the Project involves work on sovereign lands, the CSLC will act as a responsible agency. 2-1

CSLC Jurisdiction and Public Trust Lands

The CSLC has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The CSLC also has certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions (Pub. Resources Code, §§ 6301, 6306). All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the Common Law Public Trust.

As general background, the State of California acquired sovereign ownership of all tidelands and submerged lands and beds of navigable lakes and waterways upon its admission to the United States in 1850. The State holds these lands for the benefit of all people of the State for statewide Public Trust purposes, which include but are not limited to waterborne commerce, navigation, fisheries, water-related recreation, habitat preservation, and open space. On tidal waterways, the State's sovereign fee ownership extends landward to the mean high tide line, except for areas of fill or artificial accretion or where the boundary has been fixed by agreement or a court. Such boundaries may not be readily apparent from present day site inspections. 2-2

The existing and proposed SGRS facilities are located on sovereign lands under the CSLC's jurisdiction. On February 9, 2016, the CSLC authorized a 10-year General Lease – Public Agency Use, No. PRC 4480.9, to LADWP for the continued use and maintenance of the existing underwater electrode in Santa Monica Bay. An application for a lease to cover the new proposed underwater electrode was submitted on March 29, 2016. Please contact Drew Simpkin (see contact information below) for information regarding the CSLC's application, jurisdiction, and leasing requirements. 2-2 con't

Project Description

The proposed Project is an integral component of the Pacific Direct Current Intertie Transmission Line (PDCI) because it transmits bulk electricity between Los Angeles and the Pacific Northwest. During any disruption on the PDCI, the electricity (direct current) would travel in one direction to the SGRS. Because disruptions on the PDCI are rare, electricity would only be present in the SGRS for short periods of time (from 2008 through 2014, the existing SGRS only had electricity for an average of 5.25 hours per year). The LADWP proposes to replace the existing SGRS's marine facility (operating since 1970) to meet the agency's following objectives and needs:

- Increase reliability and stability of the electricity generation and delivery system for Southern California;
- Meet current and projected electricity demand in the region; and
- Increase the available share of renewable resource energy for PDCI partners.

The Project description in the Draft EIR had been revised to maximize the use of existing facilities, avoid sensitive marine environments, minimize marine cable length, and provide a sufficient distance from shore to achieve the required system operational capability, while reducing corrosive effects to onshore infrastructure. The Draft EIR identifies the Resiting of the Electrode Array and/or Marine Cable Route and Removing the Existing SGSR Marine Facility as the Environmentally Superior Alternative. 2-3

From the Project Description, CSLC staff understands that the Project would include the following components.

- Existing Gladstone Vault (Vault). The existing Vault (20 feet long, 9 feet wide, 8 feet tall) is located south of the Pacific Coast Highway at Sunset Boulevard under the Gladstones Malibu Restaurant's valet-only parking lot and Will Rogers State Beach (Beach). The Vault would be used to carry marine cables from the Vault to two existing conduits that end approximately 1,200 feet offshore.
- Existing Conduits. Two existing conduits would each carry a bundled set of three marine cables from the Vault under the Beach to 1,200 feet offshore.
- New Marine Cables. At the end of the two conduits approximately 1,200 feet offshore, all six cables (three from each conduit) would be encased in a 3.2 inch-diameter cable jacket. The marine cables, which would run from the end of two conduits to the beginning of the Electrode Array, would be buried under the ocean floor (on average approximately 5 feet deep and 20 feet apart) by a water jet plow that would create a furrow slightly larger than the cable bundle.

- Existing Electrode Array (Proposed to be Abandoned In Place). The existing Electrode Array, which consists of 24 concrete vaults (each 7 feet long, 11 feet wide, 6 feet tall) with cables and transmitters, is located about 1 mile offshore in approximately 50 feet water depth.
- New Electrode Array. The new Electrode Array would be located approximately 2 miles offshore in a different location than the existing Electrode Array. The new Electrode Array would consist of 36 concrete vaults (each 20 feet long, 8 feet wide, 4 feet tall, and weighing about 20 tons). Cranes on barges would lower the vaults into two rows of 18 vaults in about 100 feet water depth on soft-bottom seafloor covering an area of approximately 654 feet by 70 feet. Each vault and row would be spaced approximately 30 feet apart. At the new Electrode Array site, the six marine cables (three from each conduit) would be divided into six smaller cables. Each of the six smaller cables (36 total) would be connected to one of the 36 vaults. Each vault would be constructed with a fiberglass reinforced concrete floor and ceiling. The sides of the vaults would be open but covered with Kevlar mesh with 1-inch screen. Within a vault, each cable would be further divided into four cables to connect to the electrode rods that would be suspended from the vault ceiling with metal brackets.

2-3 con't

Environmental Review

CSLC staff requests that the LADWP consider the following comments.

General Comments

1. CSLC Authorization: CSLC staff requests that Table 1-3 (page 1-7) state that abandonment in place of the existing 24-vault Electrode Array would require approval by the CSLC. Under the current lease the Commission may require restoration of the lease premises, including but not limited to the removal of all improvements (Section 3, Paragraph 13(a)). CSLC and LADWP staffs discussed the proposed abandonment during a meeting in Sacramento on March 29, 2016, and agreed that the proposed abandonment of the existing electrode array is subject to further review and discussions and is ultimately subject to Commission approval. 2-4

2. Upgrading Existing Electrode Array: The explanation provided on page 2-8 does not clearly explain why the existing Electrode Array could not be upgraded with the latest technology by replacing the existing structural components like electrodes and cables within the existing 24 similar sized cement vaults. CSLC staff requests that the EIR more clearly analyze the alternative of upgrading the existing Electrode Array versus adding 36 new cement vaults. 2-5

3. Project Description: Please clarify the following potential inconsistencies.
   a) Vault Separation: Page ES-2 states that the distance between the proposed vaults is 20 feet apart; page 2-15 states 30 feet apart. 2-6
   b) Electrode Array footprint: Page ES-5 states that the footprint is 650 feet long and 70 feet wide; Figure 2-4 states it is 654 feet by 70 feet wide. 2-7

c) Furrow Depth: Page 2-22 states that the approximate average furrow depth would be "several feet." At a March 29, 2016 meeting, LADWP staff informed CSLC staff that the average furrow depth would be 5 feet. Please clarify in the Final EIR the approximate average furrow depth. 2-8

d) Number of Marine Cables and Conduits: Based on figures presented in the Draft EIR (e.g., Figure 2-4), it appears that only one marine cable would be buried under sea floor. Please revise the Final EIR figures to show two existing conduits with two marine cables being buried on the ocean floor. 2-9

e) Proposed Electrode Array Study: The Appendix D2: Marine Resources Assessment assessed marine resources for the proposed Electrode Array being 3 miles offshore (Appendix D2: pages 1, 7, and 70) instead of the proposed Project being 2 miles offshore as stated in the Draft EIR. CSLC staff requests that the Final EIR provide an explanation of how the existing data for the proposed Electrode Array being 2 miles offshore is okay using the supporting data that is for the Electrode Array to be 3 miles offshore. 2-10

f) Width of Survey Corridor: Page 1 of Fugro's Geophysical Survey Report (Appendix D1) states that a 1,200-foot corridor (600 feet on either side) was surveyed April 23 to June 1, 2012) along both the primary and the proposed optional cable routes. However, the Draft EIR states on page 3-49 that the rock outcroppings would be avoided for the marine cables because the survey corridor's width is approximately 1,440 feet. Please clarify the width of the survey corridor or provide an explanation of how this survey can be used for the proposed Project. 2-11

4. Consultation: The CSLC has an existing lease, PRC No. 7121.9, with the CDFW to maintain an artificial fishing reef in the Project vicinity CSLC staff requests that (1) the Final EIR include results of any consultations with CDFW staff on leaving structures in the ocean as an artificial reef, and (2) that the CDFW be added to Table 6-2 (page 6-3) as a state agency consulted for this Project. 2-12

Biological Resources

5. Using One or Two Jet Plows: The Project description (page 2-22) is unclear about whether the use of one jet plow, or two jet plows operating simultaneously, to lay down the two parallel cables (spaced 20 feet apart) will generate similar or different environmental impacts. CSLC staff requests that the Final EIR analyze possible environmental impacts for both one and two jet plows. 2-13

6. Water Turbidity from Jet Plow: The Draft EIR states that cable installation using one or two jet plows would take about 1 month and that the turbidity created would be "... localized and temporary, and suspended sediment is anticipated to settle relatively rapidly, generally during the ebb and flow of a single tidal cycle." However, there is no reference provided for this analysis. CSLC staff request that additional information be provided in the Final EIR about the size of sand particles, turbidity based on this size of sand particles, turbidity from using one or two jet plows, and the duration of dust plumes on the ocean floor (Appendix D.3: page 18). This 2-14

information could help support why no mitigation measures are proposed for biological resources or water quality impacts associated with turbidity 2-14 con't

7. Water Intake for Jet Plow: As explained on page 2-22, a jet plow takes water in from the ocean floor in order to create enough pressure in the water stream to be able to plow (cut) approximately 5 feet into the soft-bottom habitat on the ocean floor to bury the marine cables. However, the Draft EIR does not provide sufficient detail about the water intake process. CSLC staff requests that the Final EIR further discuss the water intake function of the jet plows and possible environmental impacts (e.g., would screens on the plow intakes help prevent marine wildlife entrainment?). 2-15

8. Underwater Noise

   a) Jet Plow Operation: Page 3-58 states "...because the cable laying activity for the SGRS marine facility would occur for a very brief period in any given location, this would be localized and temporary effect, which in isolation would not represent a significant impact on marine biological resources." Page 3-58 also states that noise from laying cable by jet plowing may temporarily displace fish within the water column from the vicinity of construction activities. The Draft EIR concludes that noise impacts to marine biological resources would be less than significant, and that no mitigation measures are required (page ES-13). However, it is not clear if possible noise impacts from using either one or two jet plows would still be the same. CSLC staff requests that the Final EIR analyze possible environmental impacts for both one and two jet plows. 2-16

   b) Placement of Concrete Vaults on Seafloor: Page 3-58 explains that "... the actual setting of the concrete vaults on the ocean floor is not anticipated to create substantial noise." However, there is no further explanation of how lowering a 20-ton cement vault to the seafloor by a crane would not generate any underwater noise. CSLC requests that the Final EIR include additional information for a reader to better understand this analysis. 2-17

   c) Underwater Noise Consultations: CSLC staff requests that the Final EIR include results of all consultations with the appropriate agencies like the California Department of Fish and Wildlife (CDFW), U.S. Fish and Wildlife, and National Oceanic and Atmospheric Administration (NOAA) Fisheries on how it was determined that there would be no underwater noise impacts to the marine wildlife and how noise levels would be monitored to keep below the recommended thresholds. 2-18

9. Connections between Marine Cables, Culverts, and Vaults: CSLC staff requests that additional information be included in the Final EIR explaining (and showing, if possible) the connections between the culverts and the marine cables and then between the marine cables and the vaults in order to evaluate the potential to create hazard or safety impact for marine organisms or others. 2-19

Cultural Resources

10. Title to Resources: BMP-2 on page ES-13 in the Cultural Resources section should include the following: "The final disposition of archaeological, historical, and 2-20

paleontological resources recovered on State lands under the jurisdiction of the CSLC must be approved by the CSLC." 2-20 con't

11. Native American Monitors: Staff notes that an email submitted by the Gabrieleno Band of Mission Indians, a contact provided by the Native American Heritage Commission, is not referenced in Table 6-8 (page 6-10) of the Draft EIR. Staff requests that the Draft EIR address the status of the request by the Gabrieleno Band of Mission Indians for onsite monitoring during all ground disturbances by one of their experienced and certified Native American monitors (Appendix E, page 544). 2-21

Climate Change

12. Greenhouse Gases (GHG): The GHG emissions analysis on page 3-10 does not appear to accurately analyze GHG emissions for the proposed Project. CSLC staff requests that the GHG analysis in the Final EIR should identify a significance threshold for GHG emissions, calculate the level of GHGs that would be emitted as a result of construction and ultimate build-out of the Project, and determine the significance of the impacts of those emissions. If impacts are significant, CSLC staff requests that appropriate mitigation measures be proposed in the Final EIR that would help reduce possible impacts to less than significant levels. 2-22

Thank you for the opportunity to comment on the Draft EIR for the Project. As a responsible and trustee agency, the CSLC will need to rely on the Final EIR for the issuance of any amended lease as specified above and, therefore, we request that you consider our comments prior to certification of the EIR.

Please send copies of future Project-related documents, including electronic copies of the Final EIR, Mitigation Monitoring Program, Notice of Determination, CEQA Findings and, if applicable, Statement of Overriding Considerations when they become available, and refer questions concerning environmental review to Afifa Awan, Environmental Scientist, at (916) 574-1891 or via e-mail at Afifa.Awan@slc.ca.gov. For questions concerning archaeological or historic resources under CSLC jurisdiction, please contact Assistant Chief Counsel Pam Griggs at (916) 574-1854 or via e-mail at Pamela.Griggs@slc.ca.gov. For questions concerning CSLC leasing jurisdiction, please contact Drew Simpkin, Public Land Management Specialist, at (916) 574-2275, or via e-mail at Drew.Simpkin@slc.ca.gov. 2-23

Sincerely,

Cy R. Oggins, Chief
Division of Environmental Planning
and Management

cc: Office of Planning and Research
A. Awan, CSLC
K. Colson, CSLC
D. Simpkin, CSLC

Response to Letter 2

California State Lands Commission
Cy R. Oggins, Chief
April 25, 2016

Response 2-1

The comment indicates that the California State Lands Commission (CSLC) has reviewed the Draft EIR for the proposed Project. The comment also indicates that the CSLC is both a trustee and a responsible agency for the proposed Project under CEQA. This dual role of the CSLC is acknowledged. No further issues related to the Draft EIR are raised in the comment, and, therefore, no further response is required.

Response 2-2

The comment discusses the jurisdiction and management authority held by the CSLC over sovereign lands owned by the State of California, such as tidelands, submerged lands, and the beds of navigable lakes and waterways. This includes the sites of the existing and proposed SGRS marine facilities. Therefore, as noted, lease agreements from CSLC would be required for the continued use and maintenance of the existing marine facility beyond the period of its current permit as well as for the use and maintenance of the proposed facility. No further issues related to the Draft EIR are raised in the comment, and, therefore, no further response is required.

Response 2-3

The comment provides a brief summary of the proposed Project as described in the Draft EIR, including the SGRS purpose and the Project objectives, the Project facility siting considerations, the proposed facilities, and the proposed abandonment in place of the existing SGRS marine facility after Project implementation. With the exception of the following minor discrepancies, this summary is essentially accurate.

- The summary indicates that the "Draft EIR identifies the Resiting of the Electrode Array and/or Marine Cable Route and Removing the Existing SGSR Marine Facility as the Environmentally Superior Alternative." This statement encompasses two separate alternatives that were considered in the Draft EIR. "Resiting of the Electrode Array and/or Marine Cable Route" (relative to the *proposed Project* electrode site and cable route) was deemed feasible and capable of achieving all the Project objectives. However, as stated on pages 4-9 and 4-11, this alternative would not eliminate or reduce (and may, in fact, increase) impacts that would be caused by the proposed Project. It was, therefore, not deemed an environmentally superior alternative. "Removing the Existing SGRS Marine Facility," which entailed physical demolition and removal of the existing electrode array and cable, was also deemed feasible and capable of achieving all the Project objectives. However, as stated on pages 4-10 and 4-11, this alternative would result in increased permanent and significant impacts to marine habitat and biota compared to the proposed Project. It was, therefore, likewise not deemed an environmentally superior alternative. As stated on page 4-11, the proposed Project (which optimized the route and location of the electrode array and marine cables relative to minimizing the size of the facility and potential environmental impacts and which included the abandonment in place [not the removal] of the existing SGRS Marine facility) was deemed the environmentally superior alternative.
- The summary indicates that the existing Gladstone Vault, from which the proposed replacement marine cables would originate, is located beneath Gladstones Malibu Restaurant's parking lot and Will Rogers State Beach. As indicated on page 2-15 of the Draft EIR, the vault is located entirely under the parking lot adjacent to Pacific Coast Highway and does not extend beneath the beach.

- The summary implies that the two separate bundled sets containing three cables each would be joined together into a single 3.2-inch diameter high-density polyethylene (HDPE) jacket where they emerge from the existing conduit about 1,200 feet offshore of the Gladstone Vault. As stated on page 2-15 of the Draft EIR, the two bundled sets would each be encased in a separate 3.2-inch diameter HDPE jacket and be buried in separate furrows to the offshore electrode array.
- The summary indicates that the proposed marine cable would be buried an average depth of about five feet below the ocean floor. The Draft EIR only stated that the cable would be buried several feet below the ocean floor. However, it has now been determined by LADWP that the cable would in fact be buried to an average depth of five feet (see response to comment 2-8, below).
- The summary of the existing electrode array employs the term "transmitters" in describing the components of the existing vaults. This term is not used in the Draft EIR, but as stated on page 2-7, the existing vaults each contain two silicon iron alloy electrode rods, where the release of current occurs.
- The summary indicates that cranes (plural) on barges (plural) would lower the proposed Project vaults to the ocean floor at the electrode site. As described on page 2-23 of the Draft EIR, only a single barge with a single crane would be used to lower the vaults.

Response 2-4

As requested in the comment, Table 1-3 (page 1-7) has been modified to reflect that the abandonment in place of the existing SGRS marine facilities, described in the Draft EIR as an element of the proposed Project, is subject to approval by the CSLC, which, in accordance with the conditions of the existing SGRS permit, has the authority to require the removal of all the existing facilities. (See Chapter 3.0 of the Final EIR for errata.)

Response 2-5

The discussion noted in the comment on page 2-8 of the Draft EIR addressed the siting and operational parameters of the existing electrode array when it was placed into service in 1970 and the changes that have occurred to the operational parameters since that time based on increases in power and amperage on the PDCI, which the SGRS supports. The issues related to the siting of the proposed Project marine cable and electrode array in a different location than the existing array were discussed beginning on page 2-16 of the Draft EIR, and the alternative of retrofitting the existing electrode array was discussed beginning on page 4-5. These discussions are summarized below.

Under the existing electrode array retrofit alternative, rather than constructing a new electrode array located approximately two miles offshore of the Gladstone Vault (as proposed under the Project), the existing electrode array, located about one mile offshore, would be retrofitted to eliminate the physical deficiencies in the system and, if feasible, provide similar operational capabilities as the proposed Project.

This retrofit would entail the cleaning, modification, and, as required, repair of the existing vault structures as well as the replacement of the existing electrode rods and installation of additional electrode rods in the vaults. Depending on the condition of individual vaults (which have been in service for over 45 years) as determined during the retrofitting process, some vaults may also need to be entirely removed and replaced in the same location or abandoned in place while a replacement vault is installed in an adjacent location. In addition, new vaults would need to be installed adjacent to the existing vaults to help achieve the operational parameters of the proposed Project; that is, the number of vaults would need to be increased from the existing 24 to the proposed 36 to maintain the electric field strength during an operational event at the electrode array below the threshold established by the International Commission on Non-Ionizing Radiation Protection and established by the International Electrochemical Commission in the *Design of Earth Electrode Stations for High-Voltage Direct Current (HVDC) Links* (IEC Technical Standard 62344:2013). The retrofit of the existing facility would also require the replacement of the

existing marine cables between the Gladstone Vault and the electrode array, but at only about half the length (approximately one mile) of cable installation of the proposed Project (approximately two miles).

As discussed in the Draft EIR, the existing electrode array was placed into service in 1970. At that time, the PDCI had a transmission rating of 1,440 MW, with a voltage of 400 kilovolts (kV) and a maximum current of 1,800 amps. In the first two decades of operation, the PDCI was upgraded several times. In 1982, the capacity was raised to 1,600 MW. In 1984, the voltage was increased to 500 kV, and the capacity was increased to 2,000 MW. In 1989, the capacity was increased again to 3,100 MW, with a maximum current of 3,100 amps, which is the existing capacity and amperage of the system. However, since it was originally installed in 1970, the electrode array itself, which was designed and sited to support a 1,800-amp system, has remained essentially the same in its physical configuration.

As discussed in the Draft EIR, electrical current is released from the SGRS electrode array during an operational event related to a fault on one pole of the PDCI. This release of electrical current can result in electrochemical corrosion of buried metallic objects, especially pipelines (such as water, petroleum, or gas transmission lines), if an appropriate separation distance is not provided between the electrode and the objects. This corrosion can damage infrastructure, which can be costly, disruptive to services, and may result in environmental impacts. The location of the existing electrode array at one mile offshore was based on the maximum 1,800-amp electrical current for the SGRS when it was placed into service in 1970 and the distance required to minimize corrosion to onshore underground infrastructure caused by the cumulative effect of operational events at the array.

Based on the one-mile offshore location and an 1,800-amp electrical current, the SGRS was designed to operate at maximum amperage for 30 minutes to provide operators time to resolve disruptions that might occur on the PDCI. However, to compensate for the increase in power and amperage that occurred on the PDCI since it was first placed into service, the operating time at maximum current (which is now 3,100 amps) has been decreased to 20 minutes, followed by a 10-minute ramp down to 1,460 amps, and operation at 1,460 amps for up to an additional two hours. These modified operational parameters have acted to minimize the corrosive effects associated with the electrode operation, but they have also substantially reduced the flexibility of operators to respond when a fault occurs on the PDCI.

Consistent with the Project objective of increasing the reliability and stability of the power generation and delivery system for Southern California, as discussed in Chapter 2 of the Draft EIR, the proposed Project would restore the capability of the SGRS to be operated at maximum amperage for 30 minutes, as was the case when the SGRS was originally placed into service. This 30-minute operating period at 3,100 amps would be followed by a 10-minute ramp down to 2,000 amps (rather than the current 1,460 amps) and operation at 2,000 amps for up to an additional two hours. These parameters would provide operators with substantially greater flexibility to resolve a potential problem on the PDCI that triggers an event of the SGRS.

However, because the PDCI operates at a maximum 3,100 amps rather than 1,800 amps (as it did when the existing electrode array was sited in its present location), the array must now be sited approximately two miles offshore of the Gladstone Vault to restore the original operating duration and still minimize the cumulative corrosive effects to onshore infrastructure. While a retrofit of the existing electrode array would be technically feasible in terms of constructability, it would create an unacceptable risk related to corrosion of underground infrastructure and the associated costs, disruption to services, and potential environmental impacts.

Furthermore, in addition to the above described risks associated with locating the proposed electrode array at the site of the existing array, retrofitting the existing electrode would likely create significant impacts to marine biological resources that would not occur at the proposed array location, two miles offshore. Based on the extensive surveys conducted of the proposed SGRS marine facility corridor for the Draft EIR, the proposed electrode array site consists of sandy bottom with no significant seafloor features

or significant biological or cultural resources. No significant long-term impacts related to locating the electrode at this site were identified.

Conversely, also based on the extensive surveys conducted for the Draft EIR, the biological community associated with the existing electrode vaults, in terms of the diversity and numbers of fish, invertebrates, and algae, is considered rich and is similar to conditions found at natural and manmade reefs in the region. As described above, construction work at the existing vault structures associated with a retrofit of the existing electrode array would involve cleaning, modification, and, as required, repair of the existing vault structures as well as the replacement of the existing electrode rods and installation of additional electrode rods in the vaults. In addition, some new vaults would be required and some existing vaults may require complete replacement, depending on condition. This work would substantially disturb the productive marine habitat that has established on and around the vaults. Given the richness of this biological community in terms of diversity and numbers and its relative scarcity in Santa Monica Bay, this impact related to retrofitting the existing electrode array would be considered significant.

Response 2-6

As stated on page ES-2 and page 2-15 of the Draft EIR, based on a preliminary design, the array would be composed of 36 concrete vaults, arranged in two rows of 18 vaults, with each vault and row spaced approximately 30 feet apart. (On page ES-2, as well as elsewhere in the Draft EIR, it stated that the proposed marine cables, consisting of two separate 3.2-inch diameter bundled sets of three cables encased in a common HDPE jacket, would be installed in two parallel furrows, which would be spaced approximately 20 feet apart).

Response 2-7

As stated in the Draft EIR, each vault would be 20 feet long and eight feet wide, and they would be arranged in two rows of 18 vaults, with each vault and row spaced approximately 30 feet apart. Assuming the vaults were oriented perpendicular to the rows (as configured in the preliminary design), based on the width and spacing of the vaults, an *approximate* outside dimension of the array of 650 feet long by 70 feet wide is provided on pages ES-5 and 2-15 of the Draft EIR. However, based on the stated width and spacing, the actual calculated dimension would be 654 feet by 70 feet, as indicated in Figure 2-4.

Response 2-8

The Draft EIR stated on page 2-22 and in other locations that "the marine cables would be installed within plowed furrows several feet below the ocean floor." LADWP engineering staff has determined that the average depth of the furrows would be about five feet. The Draft EIR has been changed on pages ES-2, ES-6, 2-12, 2-22, 3-45, and 3-50 from "several feet below the ocean floor" to "an average depth of about five feet below the ocean floor." (See Chapter 3 of the Final EIR for errata.)

Response 2-9

The purpose of Figure 2-4 is to illustrate the conceptual layout of the electrode array vaults, the spacing between the vaults, and the overall dimensions of the array. The line on the figure leading to the vaults represents the centerline of the 1,440-foot wide proposed marine facility survey corridor to indicate that, in concept, the array would be centered within the corridor and oriented perpendicular to the direction of the corridor. As discussed on page 2-16 of the Draft EIR, depending on actual conditions, it is intended that the proposed cables would generally follow the centerline of the survey corridor. However, to clarify Figure 2-4, a note has been added to the figure as follows: "Two separate cable bundles, each 3.2 inches in diameter and buried approximately five feet below the ocean floor, would generally follow the corridor centerline in separate furrows spaced approximately 20 feet apart." (See Chapter 3 of the Final EIR for errata.)

Response 2-10

As discussed in the Preface to the Draft EIR, the replacement SGRS electrode array had previously been proposed at a site three miles offshore from the Gladstone Vault, rather than the currently proposed array site two miles offshore from the vault. Based on this previous site, two 1,440-foot wide study corridors were designated and surveyed in 2012 between the three-mile offshore array site and two alternative landside cable origination points, one at the Gladstone Vault and one approximately 2.25 miles east along Pacific Coast Highway, at West Channel Road. As also discussed in the Preface to the Draft EIR, the cable alignment originating at West Channel Road is no longer under consideration in favor of the alignment originating at the Gladstone Vault.

As discussed on page 2-16 of the Draft EIR, the Gladstone study corridor (i.e., the corridor between the Gladstone Vault and the three-mile offshore electrode array site) was surveyed to ascertain resource conditions and potential constructability issues for the proposed SGRS marine facility, including the cables and the electrode array. The study corridor survey elements included bathymetric and seafloor features, side-scan sonar, and geotechnical conditions. In addition to these seafloor and sub-seafloor surveys, water and sediment sampling and dive surveys were conducted to assess biological resources, water quality, and sediment quality along the proposed route. The surveys also included two passes generally along the corridor centerline by a remotely operated underwater vehicle.

As discussed on page 2-12 of the Draft EIR, the results of these various surveys established that the study corridor consists of a gently sloping (about one percent) sandy bottom with no significant biological or cultural resources or significant seafloor features (other than nearshore rock outcroppings discussed in the Draft EIR). In addition, as discussed, the intent of the 1,440-foot width of the corridor was to provide the necessary flexibility to site the cables and the electrode array to avoid any sensitive resources ascertained during the surveys, such as the nearshore rock outcroppings.

Under the proposed Project, the marine cables would follow the same alignment defined by the corridor between the Gladstone Vault and the proposed three-mile offshore electrode site. However, they would terminate at an electrode site two miles, rather than three miles, offshore. In addition, as discussed in the Preface, while the previously proposed replacement electrode array located three miles offshore was configured in a circular arrangement approximately 0.25 mile (1,320 feet) in diameter, the currently proposed Project electrode is considerably reduced in size, at about 650 feet long by 70 feet wide. The currently proposed electrode array would be sited generally along the centerline of the survey corridor. Thus, as discussed on page 3-26 of the Draft EIR, since the survey corridor was designated when the larger electrode array located farther offshore was under consideration, the survey area completely encompasses the currently proposed cable route and electrode array site and, therefore, provides supporting data for the Project environmental analysis.

Response 2-11

As indicated in the comment, it is correct that on page 1 of the Geophysical Survey Report (Appendix D1 of the Draft EIR), a corridor width of 1,200 feet (600 feet on either side of the preliminary proposed cable route) was specified. However, in the succeeding text, greater detail was given relative to the precise survey methodology and coverage area. Here it specified that a total of nine parallel lines (a centerline and four lines either side of the centerline) were surveyed. These lines were spaced 160 feet apart. Based on the nature of the surveys, this also provided an additional 80 feet of survey area outbound of the outermost lines. Therefore, based on the number and spacing of the lines, a total survey corridor width of 1,440 feet was provided (720 feet either side of the centerline). This width is reflected in the plates contained in Appendix F of the report, where a 1,440 feet corridor is illustrated, and all data, such as contours, sediment characteristics, rock outcroppings, and side-scan sonar targets, are indicated to the outer limits of the corridor.

In addition, as discussed on page 2-16 of the Draft EIR, depending on actual conditions, it is intended that the proposed cables would generally follow the centerline on of the survey corridor. As discussed on page 2-12, the surveys established that the study corridor consists of a gently sloping (about one percent) sandy bottom with no significant biological or cultural resources or significant seafloor features other than nearshore rock outcroppings. As discussed on page 2-16, existing conduit would be utilized to install the initial segment of the new marine cable from the Gladstone Vault underneath nearshore rock outcroppings to reach soft-bottom conditions. In addition, based on the surveys, the preliminary centerline of the proposed cable corridor passes just north of a relatively large rock outcropping, which is located about 1,800 feet offshore of the Gladstone Vault. In this instance, the cables would be routed wide of the centerline to completely avoid this rock outcropping and remain in soft-bottom conditions. Even assuming the study corridor was only 1,200 feet wide, sufficient width would be provided to allow this rerouting around the rock outcropping and remain well within the surveyed corridor limits. Furthermore, the proposed electrode array, at approximately 640 feet in length, would be sited generally along the centerline of the corridor and would be entirely accommodated within the surveyed area even assuming the corridor was only 1,200 feet in width.

Response 2-12

During the development of the revised Draft EIR, numerous in-person meetings or telephone conferences were conducted beginning in summer of 2014 between LADWP environmental and engineering staff and several state agencies, including the California Department of Fish and Wildlife (CDFW). These discussions focused on concerns of the agencies regarding potential environmental impacts of the Project, the characteristics and scope of the revised Project construction and operation, and the nature of the environmental analyses being undertaken for the Draft EIR.

In particular, emphasis was given during these discussions to the environmental surveys and analyses that were conducted of the existing SGRS marine facility, the conclusions of these studies regarding the rich biological community that had established at the existing electrode array, and the recommendation that the existing array be abandoned in place to preserve this biological community, which is relatively rare within Santa Monica Bay. In the context of this abandonment recommendation, an inquiry regarding the presence of invasive species at the existing array was made by CDFW. It was indicated that based on the extensive surveys of the existing system, no invasive species had established at the array. The abandonment of the array was reflected as a component of proposed Project as presented in the revised Draft EIR. No issues related to this aspect of the Project were raised by CDFW during the review of the Draft EIR.

Table 6-2 (page 6-3 of the Draft EIR) includes those agencies that were contacted during the preparation of the previous Draft EIR for the Project, which was released for public and agency review on May 15, 2014. The agencies contacted during the preparation of the current revised Draft EIR for the modified Project (released for public and agency review on March 10, 2016) are listed on page 6-9 of the Draft EIR. As indicated on page 6-9, CDFW was one of the state agencies contacted.

Response 2-13

As mentioned in the comment, it was stated on page 2-22 of the Draft EIR that the installation of the two bundled sets of cables within separate furrows spaced about 20 feet apart "may be accomplished utilizing two plows simultaneously (if available and economically feasible) working in parallel in a single pass, or it may require the use of a single plow making two passes." The Draft EIR did not differentiate between the environmental impacts that would be caused by using one plow versus two plows, but essentially performed the analysis related to the use of only a single plow.

However, the number of jet plows that would be used for the cable installation for the Project has been further examined by LADWP. It is considered very unlikely that two plows would be used because of the limited availability and/or expense of a second plow. More significantly, however, it has now been

determined that, regardless of availability or affordability, a single plow would be used in order to better monitor and control the cable installation process to ensure that the cable is being properly fed through the plow and that it is settling correctly within the fluidized furrow created by the plow. Monitoring and controlling this process would be substantially more difficult if two plows were operating simultaneously in parallel.

Therefore, the Draft EIR (on pages ES-6 and 2-22) has been modified to indicate that although two furrows spaced 20 feet apart would be plowed, a single plow making two passes (rather than two plows working in parallel making one pass) would be utilized to adequately monitor and control the cable installation process. (See Chapter 3 of the Final EIR for errata.) Based on this change, the environmental analysis conducted in the Draft EIR was correct in its scope and conclusions since it addressed the impacts created by employing only one plow.

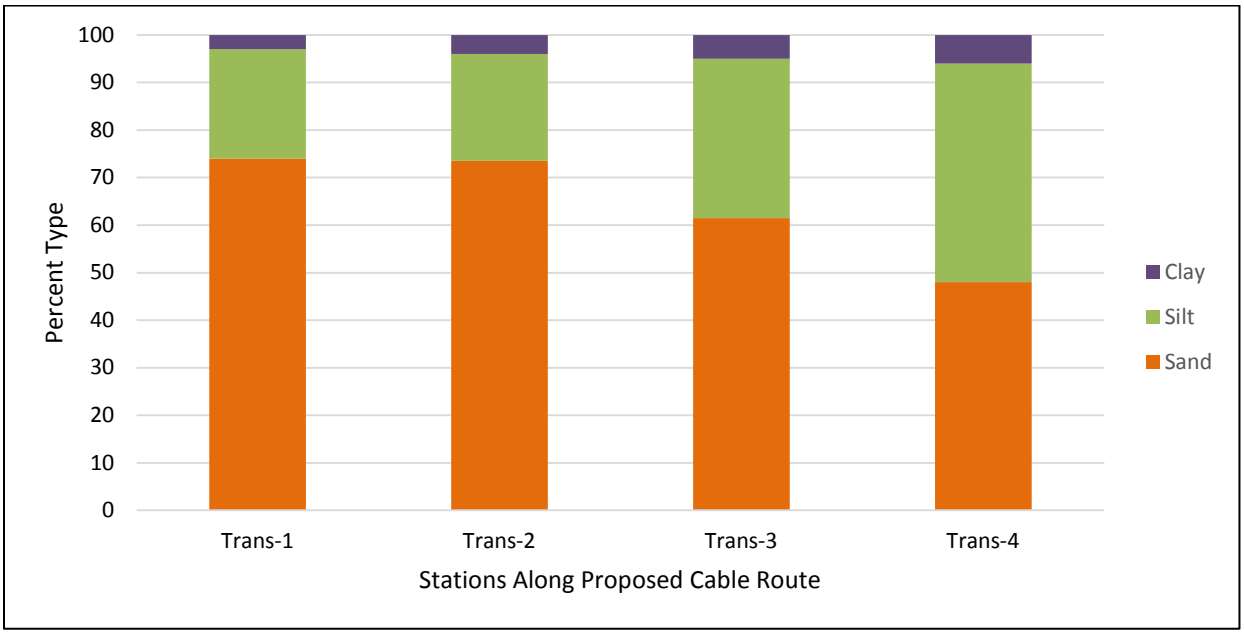
Response 2-14

As mentioned in the comment, the Draft EIR stated that it would take about one month to install the cables via plowing to the offshore electrode array site (pages ES-6 and 2-22), but it was not specified that one month would be required whether one or two plows were utilized. However, as discussed in response to comment 13, above, the analysis performed in the EIR considered that only a single plow would be utilized. This has now been clarified by modifications to the Draft EIR limiting the cable installation to utilizing one plow (see response to comment 2-13).

The geology and geomorphological characteristics of the ocean floor along the cable route will determine the type of sediment disturbed during the cable burial operations. Thus, the first step in understanding the potential impacts from the proposed cable laying operations for the SGRS Replacement Project was an assessment of sediment characteristics along the proposed cable route. As discussed on page 3-28 of the Draft EIR, as part of the Marine Resources Assessment conducted for the Project (Appendix D2 of the Draft EIR), samples were collected for grain size analyses at four locations along the proposed cable route (see Figure 3.3-1). Sampling locations were located along the cable route on transects positioned at the following distances from shore: 1,000 feet (Transect 1), 3,800 feet (Transect 2), 7,000 feet (Transect 3), 10,100 feet (Transect4). Transect 4 is located adjacent to the site of the proposed electrode array for the Project.

Grain size along the proposed cable route appeared to be strongly correlated with water depth. Sediment collected from Transects 1 and 2 (25 and 40 feet deep, respectively) consisted primarily of approximately 75 percent sand and 23 percent silt. Transect 3 sediments (60 feet deep) consisted of approximately 60 percent sand and 33 percent silt, and Transect 4 (90 feet deep) sediments consisted of approximately equal amounts of sand and silt (48 percent and 46 percent, respectively). Sediments at all transects contained a small amount of clay (2 to 6 percent). Results of grain size analyses from the Marine Resources Assessment are presented by location along the cable route (Transects 1 through 4) on Figure 2-1 (from Appendix D-2 of the Draft EIR).

FIGURE 2-1 RESULTS OF GRAIN SIZE ANALYSES ALONG THE PROPOSED CABLE ROUTE



Source: Reproduced from Weston (2012a), found in Appendix D2

The extent to which the sediment will be spread when disturbed is dependent on the current velocity at the time of disturbance and the particle size. In general, coarse sand will settle out on the seabed very close to the furrow, especially in a slack current, whereas fine sand and silt will remain in suspension longer. The sediments along the proposed cable route (Figure 2-1) consist primarily of sand close to shore (transects 1 and 2) with a higher percentage of silt with depth (transects 3 and 4), suggesting that sediments disturbed by jet plowing may be more dispersed at the deeper locations. However, sediments low in clay-sized particles, such as those in the cable route proposed for the Project are known as cohesionless because they lack a large percentage of clay-sized particles (BERR, 2008). In such sediments, jet plowing operations can be used to fluidize the sediment in a narrow channel within which the cable would sink. This method, which is proposed to be used for the Project, greatly limits the actual displacement of bottom material. According to a review of cabling techniques and environmental effects applicable to the offshore windfarm industry (BERR, 2008), the impact from jetting systems working in cohesionless soils are negligible, since there is minimal sediment displacement.

In order to assess the potential impacts that may arise from sediment suspension resulting from cable installation for the Project, several studies associated with similar projects were reviewed. The extent to which the cable-laying portion of the Project would impact the marine environment through re-suspension of sediments is dependent on the several variables, including the type of furrowing equipment used, the advance rate and plowing duration, type of substrate encountered along the cable route (e.g., sediment grain size), and local environmental conditions (e.g., tidal and wave action). There are a number of case studies available that assessed sediment re-suspension resulting from cable laying operations under various conditions.

BERR (2008) and others provided a series of case studies that assessed impacts from sediment suspension associated with various cable laying techniques and environmental variables. Projects with characteristics similar to those found along the proposed cable route for the Project are summarized below.

As part of the environmental impact assessment for the Norfolk Offshore Wind Farm (Norfolk Offshore Wind, 2002), an assessment of the fate of sediment released during cable laying operations was conducted. The assessment considered settling velocities of particles of varying grain sizes, tidal current

speeds, and tidal stage. For fine sediments, it was concluded that background suspended sediment concentrations in the water column would only be raised by a few percent above ambient conditions. The authors concluded that dispersion of fine sediment was rapid, with concentrations within a single flood or ebb excursion dropping to less than 1 milligram per Liter (mg/L) above background concentrations. This would represent a concentration of less than one part per million (ppm).

During construction of the Nysted Offshore Wind Farm in Demark, a study was conducted to determine the effects of various cable laying techniques. The sediments at the site consisted of medium sands with low silt and clay content, similar to the sediment grain size in the proposed cable route for the Project. Measurements of turbidity were taken continuously during the cabling operations, and daily mean and maximum values were determined. The jetting operations resulted in significantly less turbidity than the other techniques, with mean and maximum values of 2 mg/L and 18 mg/L, respectively. Post-construction monitoring of the Nysted site found no significant impacts from the project on fish stocks in the area.

In 2003, a modeling study was conducted to estimate water column sediment concentration and sediment deposition resulting from a proposed embedment of submarine electric cables in Lewis Bay, Nantucket Sound (Galagan et al., 2003). Suspended Sediment Fate (SSFATE) model simulations were completed to quantify these impacts for cables buried to a depth of six feet in sand-sized marine sediments. It was assumed that a jetting device would be used to create a trapezoidal trench measuring 6 feet across at the top, 2 feet across at the bottom and 8 feet deep (much larger than the furrow anticipated with the SGRS Replacement Project). It was also assumed that 30 percent of the total sediment fluidized within the trench would be evenly distributed vertically throughout the overlying water column, and the remaining 70 percent would remain within the limits of the trench. The modelling indicated that suspended sediment concentrations would reach a maximum value of 120 mg/L along the cable route (a concentration of about 60 ppm).

In 2008, the U.S. Department of the Interior (DOI) Minerals Management Service conducted an environmental impact study (EIS) for the Cape Wind Energy Project for a proposed alternative energy facility in Nantucket Sound (DOI, 2008). The project included a 12.5 mile submarine transmission cable system that was installed by jet plowing in sediments that consisted primarily of medium sand in shallow water and finer sand in deeper water (similar to sediment conditions along the proposed cable route for the SGRS Replacement Project). Jet plowing technology was specifically selected for its ability to keep sediment disturbance to a minimum.

Model simulations of sediment transport and deposition from jet plow embedment of the submarine cable system were performed for the project using two models (HYDROMA to calculate currents and SSFATE to calculate suspended sediment concentrations in the water column and bottom deposition from the jet plow operations). The model results demonstrated that concentrations of suspended sediment in the water column would be low (largely below 50 mg/L). Suspended sediment concentrations above ambient levels would be short lived due to rapid settling out of the water column. In places immediately adjacent to the cable route, suspended sediment concentrations were predicted to remain at 100 mg/L (about 50 ppm) for approximately 2 to 3 hours before returning to ambient conditions. The authors of the study concluded that sediment suspension during jet plowing operations would not result in long-term or environmentally significant elevations in water column suspended sediment, and species that may be temporarily affected or displaced in the immediate vicinity of jet plow operations were likely to rapidly return to those areas once cable installation activities ceased.

More recent modelling efforts were conducted for a proposed offshore wind farm off the coast of Rhode Island found similar results (ASA 2012). The researchers used a sediment dispersion model to evaluate the underwater sediment plume created by jet plowing associated with cable installation. The model incorporated hydrodynamic simulations for three different jet plow advance rates, two different hydrodynamic conditions, and analysis of the natural sediment dispersion processes in the surf zone based on ambient conditions and conditions during a simulated storm event. The results of the study indicated

that during jet plow operations, elevated levels of suspended sediment would be produced in the water column, but remained close to the jet plow track. Concentrations rarely exceeded 100 mg/L, and there were no areas with a 100 mg/L concentration for durations of an hour or greater.

The model results were not sensitive to differences in jet plow advance rate or the different hydrodynamic conditions used in the analysis, but results did show that simulations at sites with smaller grained sediments produced slightly great water column sediment concentrations than larger grained sites. The effects were short lived, however, and elevated concentrations were rapidly dispersed. In comparing the suspended sediment from the jet plow, they found that modeled suspended sediment concentrations generated by the jet plow fell between concentrations during ambient and storm wave conditions in the surf zone. The volume of suspended sediments expected as a result of jet plow operations were comparable to those generated by normal wave climates. In all model simulations, suspended sediment settled out of the water column within a matter of minutes after cessation of plowing. The study concluded that the jet plow operations provide a very small contribution to the natural sediment concentration conditions in the nearshore areas of the study sites.

Based on the studies summarized above and the site conditions along the proposed cable route for the Project (cohesionless sediments consisting primarily of sand), construction activities from cable laying operations would produce only temporary, localized, and minor increases in suspended sediment and therefore would not have insignificant impacts to marine biota in Santa Monica Bay. The level of potential impact is expected to be within the natural variability associated with waves, tidal action, and storm events experienced in Santa Monica Bay and substantially less than that associated with anthropogenic impacts from dredging or aggressive fishing practices (BERR 2008). It is unlikely that construction activities would increase turbidity beyond levels commonly encountered during high wave events and storms. Therefore, the impact of construction on turbidity would be both short-term and within the natural level of variability.

In relation to the turbidity that would be created by using one plow versus the turbidity that would be created by using two plows working in parallel, the analysis performed in the Draft EIR considered the use of only a single plow. The Draft EIR has been modified to limit the cable installation to utilizing one plow (see response to comment 2-13). Based on this change, the environmental analysis conducted in the Draft EIR relative to turbidity was correct in its scope and conclusions since it addressed the impacts created by employing only one plow.

Response 2-15

As stated on page 2-22 of the Draft EIR, water would be pumped through jets located on the plowshare of the jet plow to fluidize the sediment and allow the cable to sink below the surface. However, the intake of water used for this purpose would be located at the sea surface, off of the cable-laying vessel, not from the ocean floor. Water pumps aboard the vessel would introduce water drawn from the surface and pump it through hoses to an intake manifold of the jet plow on the ocean floor. It is anticipated that it would take about two weeks to install each cable bundle beneath the ocean floor to the offshore electrode array site (i.e., one month total installation time). However, the actual time that the jet plow would be in operation during this installation would be significantly less. Nonetheless, several million gallons of water would be pumped from the surface to the jet plow on the seafloor during the installation. To put this quantity in perspective, one large tanker can carry over 52 million gallons of seawater as ballast, with pumping rates of four to five million gallons of water per hour (Marine Board Commission on Engineering and Technical Systems, 1996).

The intakes for the jet plowing operation would be screened to minimize entrainment of fish and other species. However, any early life stages of fish, such as eggs and larvae (ichthyoplankton), that are present at the sea surface at the time of jet plow operation would still have the potential to be entrained by the pumping process. The species that could potentially be impacted by seawater withdrawals for jet plow

operations include the pelagic (open ocean) stages of ichthyoplankton. Early life stages of species that are benthic (on or in the ocean floor sediment) or demersal (in the water column just above the ocean floor) would not be impacted by the pumping of surface water for jet plow operations. It is expected that ichthyoplankton entrained by the jet plow operation would experience essentially 100 percent mortality.

Extensive data sets for ichthyoplankton in California's coastal communities have been developed by the California Cooperative Oceanic Fisheries Investigations (CalCOFI) program, National Marine Fisheries Service (NMFS), and the Los Angeles County Museum (LACM). Ichthyoplankton collected for these programs and institutions have been collected since the 1940s (Suntsov et al., 2012). A list of the major fish species with nearshore pelagic ichthyoplankton that may be entrained during pumping operations associated with the Project is provided in Table 2-2. The list was compiled from the CalCOFI, NMFS, and LACM monitoring programs from ichthyoplankton trawls conducted over the last several decades.

TABLE 2-2 LIST OF FISH SPECIES WITH INSHORE PELAGIC ICHTHYOPLANKTON

SPECIES[a]	COMMON NAME	SPAWNING SEASON
Engraulis mordax	California anchovy	Winter and spring[a, b]
Paralabrax spp.	Sea bass	June – September[e]
Genyonemus lineatus	White croaker	Year-round[l]
Citharichthys spp.	Sanddab	July - September[c]
Paralichthys californicus	California halibut	April – July[c]
Pleuronichthys verticalis	Hornyhead turbot	Year-round[a,k]
Seriphus politus	Queenfish	March – August[d]
Peprilus simillimus	Pacific pompano	March - May[f]
Sardinops sagax	Pacific sardine	November - May[g]
Pleuronichthys ritteri	Spotted turbot	Year-round[h]
Parophrys vetulus	English sole	January to March[i]
Hypsopsetta guttulata	Diamond turbot	Winter and Fall[h]
Lyopsetta exilis	Slender sole	February – April[j]
Hippoglossina stomata	Bigmouth sole	May - November[k]

Sources: (a) Gruber et al., 1982. (b) NOAA, 1985. (c) CDFW, 2013. (d) DeMartii and Fountaini, 1981. (e) Oda et al., 1993. (f) Goldberg, 1981. (g) Hammann et al., 1998. (h) Kramer, 1991. (i) Gadomski and Boehlert, 1984. (j) Alaska Fisheries Science Center, 2015. (k) Goldberg, 1982. (l) Love et al., 1984.

Millions of eggs and larvae from these species may be present at the sea surface in the area of the pumping operations for the jet plow (Watson et al., 2010). However, given the high fecundity (i.e., the rate of egg production) of fish (Hunter and Goldberg, 1980), the potential loss of ichthyoplankton from entrainment would represent only a very small fraction of equivalent adults of the species that may be present.

For example, northern anchovy spawn throughout the year off southern California, with peak spawning in the winter and spring months. Female anchovies off Los Angeles spawn every seven to ten days during peak spawning periods, and they spawn approximately 20 times per year (Hunter and Macewicz 1980, MBC 1987). Love (1996) reported that they release 2,700 to 16,000 eggs per spawning batch, with an annual fecundity of up to 130,000 eggs per year in Southern California from a single female. Fecundity is strongly influenced by the age of the female (older individuals producing substantially more eggs per batch than younger females). IRC (1981) found that in samples collected in 1978-1979, concentrations of anchovy species complex larvae in Santa Monica Bay were 360 larvae per 264,172 gallons of seawater (in surveys conducted during the day). Concentrations of larvae in plankton sampling conducted in 2006 near the same locations (MBC et al., 2007) were approximately seven times less than the concentrations measured in 1978-1979, reflecting the high inter-annual variability of this species in southern California.

Estimates of fecundity of sea bass (which comprise three important recreational fish species in southern California) is strongly dependent on size, with the number of eggs ranging from 12,000 eggs in a one pound fish to over 185,000 eggs in a six pound fish (DeMartini, 1987). The spawning rate of an average sized female was estimated by Oda et al. (1993) at 81,000 eggs per batch, and all three species of sea bass in southern California are capable of daily spawning (Oda et al., 1993). White croaker (a common and ecologically important species found in nearshore waters throughout southern California) are broadcast spawners that can spawn year-round (Gruber et al. 1982), with peak spawning primarily from November through August. Love et al. (1984) reported a wide range in white croaker fecundity, with batch fecundities ranging from approximately 800 eggs to over 37,000 eggs per female (depending on the size of the fish). Spawning takes place as often as every five days, and females spawn approximately 18 times per season.

Although fecundity is high for the pelagic species that may be affected by the jet plowing operations, the potential impact of entrainment of eggs and larvae on fish populations is based on impacts to reproductive-aged adults. One way of estimating the potential impacts from entrainment of ichthyoplankton on populations of adults for a given species is to use models developed for assessing impacts associated with impingement and entrainment of ichthyoplankton from once-through cooling operations of coastal power plants, as required by the Clean Water Act, Section 316(b). LADWP has conducted mortality and entrainment characterization studies for the Scattergood Generating Station, located in Santa Monica Bay as part of the 316(b) regulations (MBC et al., 2007). Comprehensive, year-round plankton sampling and a suite of predictive models were used to estimate reductions in the number of adults in source populations in Santa Monica Bay caused by impingement and entrainment of ichthyoplankton by the power plant intake.

The Scattergood Generating Station has a maximum cooling water flow of 495 million gallons per day (mgd) from its seawater intake located 1,600 feet from shore in Santa Monica Bay (MBC et al. 2007). The actual flow in 2006 (when the study was conducted) was estimated at 317 mgd. Although the power plant entrained millions of eggs and larvae for once through cooling purposes, the models demonstrated that the percentage of pelagic eggs and larvae entrained by the plant that would have survived to reproductive-aged adults was very low (typically less than 0.1%). MBC et al. (2007) concluded that the magnitude of impacts to fishes in Santa Monica Bay from the seawater intake of the Scattergood Generating Station was relatively low and not at levels that would represent a risk of adverse impacts to the fish and invertebrate populations.

The entire volume of seawater expected to be used for the jet plowing operations associated with the SGRS replacement project would be several orders of magnitude less than the Scattergood Generating Station uses in a single day. Given the relatively short duration of the actual pumping activity required for cable installation and the relatively small volume of seawater that would be used over the course of construction (as compared to the much larger volumes of seawater withdrawn from the Santa Monica Bay for other purposes on a daily basis), impacts from the incremental increase in loss of ichthyoplankton associated with jet plow operations would be short-lived and less than significant.

Response 2-16

In relation to the impacts to marine biological resources that would be created by the noise using one plow versus the noise using two plows working in parallel, the analysis performed in the Draft EIR considered the use of only a single plow. The Draft EIR has been modified to limit the cable installation to utilizing one plow (see response to comment 2-13). Based on this change, the environmental analysis conducted in the Draft EIR relative to noise created by the plows was correct in its scope and conclusions since it addressed the impacts created by employing only one plow.

Response 2-17

As described in Section 2.5 of the Draft EIR (Project Construction), the 36 concrete vaults of the electrode array would be transported by barge to the proposed array site. All activities related to the installation of the vaults would occur on or from the barge. The electrode rods would be installed within each vault and connected to cables. Each vault would then be lowered to the ocean floor by a 30-ton crane mounted on the barge. The vaults would be set directly on the ocean floor with no requirement for foundations or excavation. Divers would be present as the vaults are lowered to guide and monitor the installation.

Installation of the vaults is anticipated to proceed at a very slow pace. An average of one vault per day would be assembled and lowered. It is expected that the actual lowering of a single vault from the barge to the ocean floor (at a depth of approximately 100 feet) would take several hours. The noise transmitted through the water column associated with the actual lowering of the vault would be negligible until the vault made contact with the ocean floor. Due to the very slow rate of descent required to safely and accurately position the vault in the appropriate location and orientation, noise produced by the contact of the vault with the floor would be minimal and instantaneous (rather than continuous).

While activities involved in the array installation would generate noise on the surface (e.g., from the generator and crane on the barge), the noise generated by the vault installation would be much lower in both intensity and duration than noise associated with the jet plow operation. Therefore, as discussed on page 3-58 of the Draft EIR, "impacts related to construction noise have been considered based on the cable laying activities for the marine portion of the SGRS because the cable laying would involve the operation of vessels at the surface and a jet plow on the ocean floor and would create the highest levels of noise associated with Project construction." Noise associated with jet plowing was shown in empirical studies conducted by Nedwell et al. (2007) to be less than the 70 decibel hearing threshold for individual marine species (dBht [species]) for all species tested (see discussion beginning on page 3-58 of the Draft EIR). This value is less than the underwater noise threshold of 75 dBht (species) on Nedwell's scale that may induce a mild avoidance reaction from some marine fauna. Based on this noise scale, the very low sound level that would be produced by contact of an electrode vault with the ocean floor and the very short duration of sound generation (essentially instantaneous, occurring once per day on 36 separate days) would result in no impact on marine fauna in the vicinity. Once set on the ocean floor, no further movement of the vaults would take place, and there would be no other noise impacts associated with the vault installation process that could potentially impact marine biota.

Response 2-18

The determination of a less than significant noise impact to marine species (including marine mammals) was based not on agency consultation but, as discussed on pages 3-58 and 3-59 of the Draft EIR, on the noise predicted to result from cable laying activities (which would create the highest noise levels during Project construction) when assessed in relation to scientifically established thresholds for noise-induced behavioral effects to marine species. As discussed, relative to the development of these thresholds,

> Nedwell et al. (1998) developed a scale based on a hearing threshold (ht) of sound perception on the decibel (dB) scale for individual marine species (dBht [species]). This species-specific scale . . . accounts for the hearing threshold of individual species and allows for an assessment of potential impacts of a given level of noise on a species-specific basis. . . . The measure that is obtained represents the 'loudness' of the sound for that animal.

As further discussed, relative to the determination of the noise levels resulting from marine cable laying activities and the reactions of marine species to these noise levels,

> Nedwell et al. (2003) measured the noise associated with cable laying construction at varying distances from trenching operations and compared noise levels in the field to the hearing thresholds of

several fish and marine mammal species using the dBht (species) scale. Based on the scale, avoidance reactions were considered mild at species-specific sound levels greater than 75 dBht (species), significant at levels greater than 90 dBht (species), and strong at levels greater than 100 dBht (species). This model was validated for a variety of fish species and marine mammals by Nedwell et al. (2007). They found that the noise measurements in the field associated with cable trenching were less than 70 dBht (species) for all species tested.

Based on this analysis, it was determined that the impacts to marine species from noise associated with Project construction would be less than significant. Furthermore, because the anticipated noise level (less than 70 dBht [species]) from cable installation (based on past similar operations) would be substantially below the threshold at which a significant level of avoidance reactions would occur (90 dBht [species]), the need for monitoring to prevent exceedances of the significance threshold was not warranted to avoid impact. In addition, as discussed in the Draft EIR, because the cable installation would occur for only a brief period (and very brief in any given location), the effect would be temporary and isolated and would not represent a significant impact on marine biological resources.

Numerous state and federal agencies, including CDFW, the National Marine Fisheries Service, and the United States Fish and Wildlife Service, were provided copies of the Draft EIR from the previous SGRS Project and the current revised Draft EIR from the modified SGRS Project, both of which contained analysis related to the potential noise impacts to marine species caused by Project construction activity. No issues related to the analysis or significance conclusions regarding construction noise impacts were raised by these resource agencies during the review of these documents.

Response 2-19

Splicing of the cables would be necessary at several locations between the Gladstone Vault and the electrode array. This would include where the two bundled sets containing three cables each emerge from the existing conduit about 1,200 feet offshore of the Gladstone Vault, where the two bundled cable sets would be divided just prior to reaching the vaults, and at each vault. These spliced connections would be completely protected and hermetically sealed by encasing them in heat shrink insulation tubing. The spliced connections would also be buried beneath the ocean floor.

The complete sealing of these connections is critical for several reasons and, therefore, it would be properly executed during Project construction. First, it would prevent corrosion of the conductor material, which is necessary to maintain the full functionality of the system. Second, relative to the hazard and safety concern expressed in the comment, even if the cables became exposed on the ocean floor, the splices would be fully insulated and electrically neutral, preventing potential exposure of marine organisms and humans to electrical current. Third, and most significant from an operations point of view, securely insulating the connections is essential to the proper function of the electrode system. If a splice was exposed, a portion of the electrical current would discharge at the splice rather than reaching the electrode array, where it would be appropriately dissipated to a safe level and where a sufficient distance from shore would be provided to achieve the required system operational capability while also minimizing corrosive effects to onshore infrastructure.

Response 2-20

As requested, BMP-2 on pages ES-13, 2-25, and 3-65 of the Draft EIR has been modified to include the following: “The final disposition of archaeological, historical, and paleontological resources recovered on State lands under the jurisdiction of the CSLC must be approved by the CSLC.” (See Chapter 3 of the Final EIR for errata.)

Response 2-21

Table 6-8 (page 6-10 of the Draft EIR) references responses from Native American tribal representatives to a letter of inquiry regarding potential Project impacts to cultural resources dated 6/12/2015. The email mentioned in the comment is instead referenced in Table 6-4 (page 6-5) of the Draft EIR and was submitted by Andrew Salas, chairman of the Gabrieleno Band of Mission Indians, on 11/26/2010 in response to a letter of inquiry to Native American tribal representatives dated 10/15/2010. As described in this letter of inquiry (which was prepared during the CEQA scoping process for the previously circulated Draft EIR for the Project), the proposed SGRS Replacement Project consisted of the replacement of the overhead segment of the SGRS (which extends about 22 miles from the Sylmar Converter Station to the Kenter Canyon Terminal Tower in Brentwood) and the underground segment of the SGRS (which extends about 7.5 miles from the Kenter Canyon Terminal Tower to the Gladstone Vault) but not the replacement of the marine segment of the SGRS. The proposed underground segment replacement involved three alternative alignments, including one through Topanga State Park. This alignment in particular engendered the request from the Gabrieleno Band of Mission Indians for onsite monitoring during all ground disturbances.

However, since the time of this scoping letter and the subsequent email response (fall of 2010), the proposed Project has changed substantially. As discussed on page 2-2 of the Draft EIR, the overhead segment of the SGRS will not be replaced as part of the proposed Project because it has since been determined that it is adequate to support the continued reliable operation of the SGRS. Likewise, as discussed on page 2-7, the underground segment will not be replaced because it has been determined that, with appropriate maintenance improvements, it is also adequate to support continued reliable operations. As discussed in the Draft EIR, the proposed Project now consists only of the replacement of the marine segment of the SGRS, which was not a component of the Project as described in the 10/15/2010 letter of inquiry that engendered the email request for on-site Native American monitoring related to the ground disturbance cause by Project construction.

Based on these substantial changes in the Project scope, during the preparation of the revised Draft EIR, the Native American Heritage Commission was contacted in April 2015 to perform an additional Sacred Lands File search in relation to the currently proposed Project, and additional letters of inquiry were sent in June 2015 to Native American tribal representatives, including the Gabrieleno Band of Mission Indians (Andrew Salas, chairman). The responses to these letters are referenced in Table 6-8 of the Draft EIR. In relation to the currently proposed Project, under which the overhead and underground segment replacements have been eliminated, no request for monitoring from the Gabrieleno Band of Mission Indians was received.

Response 2-22

The discussion on page 3-10 of the Draft EIR provided an overview of the general consequences related to greenhouse gas (GHG) emissions, the primary types of GHGs and their global warming potential, and legislative requirements related to GHG emissions.

The analysis of the potential for the proposed Project to generate GHGs in excess of established thresholds of significance was included on page 3-25 of the Draft EIR. In summary, based on the types of equipment and duration of use during the different phases of Project construction, the total metric tons of various GHGs that would be generated was calculated. This calculation is reflected in Table 3.2-9 (page 3-25), which indicates total CO_2-equivalent (CO_2e) construction-related emissions of 1,888 metric tons. (Project operations would produce no additional GHGs beyond current operations.) Based on South Coast Air Quality Management District (SCAQMD) guidance, the construction emissions were amortized over a 30-year period to determine the Project's contribution to overall GHG emissions, resulting in 66 metric tons of CO_2e emissions per year. It was therefore concluded that the proposed Project would remain substantially below the SCAQMD recommended threshold of significance for industrial projects of

10,000 metric tons of CO_2e emissions per year, and the impact related to GHGs would be less than significant.

Response 2-23

LADWP recognizes CSLC's important role regarding the implementation of the proposed Project and has provided responses to the comments contained in this letter. All future Project-related CEQA documents will be forwarded when available. Inquiries related to environmental review, archaeological or historic resources, and lease requirements will be directed to the appropriate party as indicated in the comment. No further issues related to the Draft EIR are raised in the comment, and, therefore, no further response is required.

STATE OF CALIFORNIA
GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

April 26, 2016

Nancy Chung
City of Los Angeles Department of Water and Power
111 North Hope Street
Los Angeles, CA 90012

Subject: Sylmar Ground Return System Replacement Project
SCH#: 2010091044

Dear Nancy Chung:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. The review period closed on April 25, 2016, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

3-1

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Document Details Report
State Clearinghouse Data Base

SCH# 2010091044
Project Title Sylmar Ground Return System Replacement Project
Lead Agency Los Angeles, City of

Type EIR Draft EIR

Description The Los Angeles Dept. of Water and Power is proposing to replace the existing marine cables and the marine electrode portions of the Sylmar Ground Return System. The proposed marine facility would originate at the existing Gladstone Vault, from this location, the new marine cables would extend to a new electrode array in the Santa Monica Bay. The marine cables would be installed several feet beneath the ocean floor by means of a water-jet plow to the site of the proposed electrode array, approx. 2 miles offshore. The electrode array would be located on the ocean floor at a depth of approx. 100 feet below mean sea level and consist of 36 concrete vaults, arranged in two rows of 18 vaults. Each vault is 20 feet long 8 feet wide, and four feet high.

Lead Agency Contact

Name Nancy Chung
Agency City of Los Angeles Department of Water and Power
Phone 213-367-0404 **Fax**
email
Address 111 North Hope Street
City Los Angeles **State** CA **Zip** 90012

Project Location

County Los Angeles
City Los Angeles, City of
Region
Lat / Long 34° 02' 18.1" N / 118° 33' 19.1" W
Cross Streets Pacific Coast Hwy and Sunset Blvd.
Parcel No.
Township **Range** **Section** **Base**

Proximity to:

Highways Pacific Coast Hwy
Airports
Railways
Waterways Santa Monica Bay
Schools Multiple
Land Use

Project Issues Air Quality; Archaeologic-Historic; Biological Resources; Coastal Zone; Noise; Recreation/Parks; Traffic/Circulation; Water Quality; Vegetation; Cumulative Effects; Wetland/Riparian

Reviewing Agencies Resources Agency; California Coastal Commission; Department of Conservation; Department of Fish and Wildlife, Region 5; Department of Parks and Recreation; Department of Water Resources; Office of Emergency Services, California; California Highway Patrol; Caltrans, District 7; Air Resources Board; Regional Water Quality Control Board, Region 4; Native American Heritage Commission; State Lands Commission

Date Received 03/10/2016 **Start of Review** 03/10/2016 **End of Review** 04/25/2016

Note: Blanks in data fields result from insufficient information provided by lead agency

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Response to Letter 3

State Clearinghouse
Scott Morgan, Director
April 26, 2016

Response 3-1

This comment letter acknowledges that LADWP has complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to CEQA. No further issues related to the Draft EIR are raised in the State Clearinghouse letter and, therefore, no further response is required.

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STATE OF CALIFORNIA
GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT

EDMUND G. BROWN JR.
GOVERNOR

KEN ALEX
DIRECTOR

April 26, 2016

Nancy Chung
City of Los Angeles Department of Water and Power
111 North Hope Street
Los Angeles, CA 90012

Subject: Sylmar Ground Return System Replacement Project
SCH#: 2010091044

Dear Nancy Chung:

The enclosed comment (s) on your Draft EIR was (were) received by the State Clearinghouse after the end of the state review period, which closed on April 25, 2016. We are forwarding these comments to you because they provide information or raise issues that should be addressed in your final environmental document.

4-1

The California Environmental Quality Act does not require Lead Agencies to respond to late comments. However, we encourage you to incorporate these additional comments into your final environmental document and to consider them prior to taking final action on the proposed project.

Please contact the State Clearinghouse at (916) 445-0613 if you have any questions concerning the environmental review process. If you have a question regarding the above-named project, please refer to the ten-digit State Clearinghouse number (2010091044) when contacting this office.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency

STATE OF CALIFORNIA

EDMUND G. BROWN JR., *Governor*

CALIFORNIA STATE LANDS COMMISSION
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202

JENNIFER LUCCHESI, *Executive Officer*
(916) 574-1800 *Fax* (916) 574-1810
California Relay Service TDD Phone 1-800-735-2929
from Voice Phone 1-800-735-2922

Contact Phone: (916) 574-1890
Contact FAX: (916) 574-1885

Established in 1938

April 25, 2016

File Ref: SCH # 2010091044

~~Elsewhere~~ Late
04/25/16

Nancy Chung
Los Angeles Department of Water and Power
P. O. Box 51111, Room 1044
Los Angeles, CA 90012

Subject: Revised Draft Environmental Impact Report (Draft EIR) for Sylmar Ground Return System Replacement Project, Los Angeles County

Dear Ms. Chung:

The California State Lands Commission (CSLC) staff has reviewed the subject Draft EIR for the Sylmar Ground Return System (SGRS) Replacement Project (Project), which is being prepared by the Los Angeles Department of Water and Power (LADWP). The LADWP, as the public agency proposing to carry out the Project, is the lead agency under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq. The CSLC is a trustee agency for projects that could directly or indirectly affect sovereign lands and their accompanying Public Trust resources or uses. Additionally, because the Project involves work on sovereign lands, the CSLC will act as a responsible agency.

CSLC Jurisdiction and Public Trust Lands

The CSLC has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The CSLC also has certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions (Pub. Resources Code, §§ 6301, 6306). All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the Common Law Public Trust.

As general background, the State of California acquired sovereign ownership of all tidelands and submerged lands and beds of navigable lakes and waterways upon its admission to the United States in 1850. The State holds these lands for the benefit of all people of the State for statewide Public Trust purposes, which include but are not limited to waterborne commerce, navigation, fisheries, water-related recreation, habitat preservation, and open space. On tidal waterways, the State's sovereign fee ownership extends landward to the mean high tide line, except for areas of fill or artificial accretion or where the boundary has been fixed by agreement or a court. Such boundaries may not be readily apparent from present day site inspections.

The existing and proposed SGRS facilities are located on sovereign lands under the CSLC's jurisdiction. On February 9, 2016, the CSLC authorized a 10-year General Lease – Public Agency Use, No. PRC 4480.9, to LADWP for the continued use and maintenance of the existing underwater electrode in Santa Monica Bay. An application for a lease to cover the new proposed underwater electrode was submitted on March 29, 2016. Please contact Drew Simpkin (see contact information below) for information regarding the CSLC's application, jurisdiction, and leasing requirements.

Project Description

The proposed Project is an integral component of the Pacific Direct Current Intertie Transmission Line (PDCI) because it transmits bulk electricity between Los Angeles and the Pacific Northwest. During any disruption on the PDCI, the electricity (direct current) would travel in one direction to the SGRS. Because disruptions on the PDCI are rare, electricity would only be present in the SGRS for short periods of time (from 2008 through 2014, the existing SGRS only had electricity for an average of 5.25 hours per year). The LADWP proposes to replace the existing SGRS's marine facility (operating since 1970) to meet the agency's following objectives and needs:

- Increase reliability and stability of the electricity generation and delivery system for Southern California;
- Meet current and projected electricity demand in the region; and
- Increase the available share of renewable resource energy for PDCI partners.

The Project description in the Draft EIR had been revised to maximize the use of existing facilities, avoid sensitive marine environments, minimize marine cable length, and provide a sufficient distance from shore to achieve the required system operational capability, while reducing corrosive effects to onshore infrastructure. The Draft EIR identifies the Resiting of the Electrode Array and/or Marine Cable Route and Removing the Existing SGSR Marine Facility as the Environmentally Superior Alternative.

From the Project Description, CSLC staff understands that the Project would include the following components.

- Existing Gladstone Vault (Vault). The existing Vault (20 feet long, 9 feet wide, 8 feet tall) is located south of the Pacific Coast Highway at Sunset Boulevard under the Gladstones Malibu Restaurant's valet-only parking lot and Will Rogers State Beach (Beach). The Vault would be used to carry marine cables from the Vault to two existing conduits that end approximately 1,200 feet offshore.
- Existing Conduits. Two existing conduits would each carry a bundled set of three marine cables from the Vault under the Beach to 1,200 feet offshore.
- New Marine Cables. At the end of the two conduits approximately 1,200 feet offshore, all six cables (three from each conduit) would be encased in a 3.2 inch-diameter cable jacket. The marine cables, which would run from the end of two conduits to the beginning of the Electrode Array, would be buried under the ocean floor (on average approximately 5 feet deep and 20 feet apart) by a water jet plow that would create a furrow slightly larger than the cable bundle.

- Existing Electrode Array (Proposed to be Abandoned In Place). The existing Electrode Array, which consists of 24 concrete vaults (each 7 feet long, 11 feet wide, 6 feet tall) with cables and transmitters, is located about 1 mile offshore in approximately 50 feet water depth.
- New Electrode Array. The new Electrode Array would be located approximately 2 miles offshore in a different location than the existing Electrode Array. The new Electrode Array would consist of 36 concrete vaults (each 20 feet long, 8 feet wide, 4 feet tall, and weighing about 20 tons). Cranes on barges would lower the vaults into two rows of 18 vaults in about 100 feet water depth on soft-bottom seafloor covering an area of approximately 654 feet by 70 feet. Each vault and row would be spaced approximately 30 feet apart. At the new Electrode Array site, the six marine cables (three from each conduit) would be divided into six smaller cables. Each of the six smaller cables (36 total) would be connected to one of the 36 vaults. Each vault would be constructed with a fiberglass reinforced concrete floor and ceiling. The sides of the vaults would be open but covered with Kevlar mesh with 1-inch screen. Within a vault, each cable would be further divided into four cables to connect to the electrode rods that would be suspended from the vault ceiling with metal brackets.

Environmental Review

CSLC staff requests that the LADWP consider the following comments.

General Comments

1. CSLC Authorization: CSLC staff requests that Table 1-3 (page 1-7) state that abandonment in place of the existing 24-vault Electrode Array would require approval by the CSLC. Under the current lease the Commission may require restoration of the lease premises, including but not limited to the removal of all improvements (Section 3, Paragraph 13(a)). CSLC and LADWP staffs discussed the proposed abandonment during a meeting in Sacramento on March 29, 2016, and agreed that the proposed abandonment of the existing electrode array is subject to further review and discussions and is ultimately subject to Commission approval.

2. Upgrading Existing Electrode Array: The explanation provided on page 2-8 does not clearly explain why the existing Electrode Array could not be upgraded with the latest technology by replacing the existing structural components like electrodes and cables within the existing 24 similar sized cement vaults. CSLC staff requests that the EIR more clearly analyze the alternative of upgrading the existing Electrode Array versus adding 36 new cement vaults.

3. Project Description: Please clarify the following potential inconsistencies.
   a) Vault Separation: Page ES-2 states that the distance between the proposed vaults is 20 feet apart; page 2-15 states 30 feet apart.
   b) Electrode Array footprint: Page ES-5 states that the footprint is 650 feet long and 70 feet wide; Figure 2-4 states it is 654 feet by 70 feet wide.

c) Furrow Depth: Page 2-22 states that the approximate average furrow depth would be "several feet." At a March 29, 2016 meeting, LADWP staff informed CSLC staff that the average furrow depth would be 5 feet. Please clarify in the Final EIR the approximate average furrow depth.

d) Number of Marine Cables and Conduits: Based on figures presented in the Draft EIR (e.g., Figure 2-4), it appears that only one marine cable would be buried under sea floor. Please revise the Final EIR figures to show two existing conduits with two marine cables being buried on the ocean floor.

e) Proposed Electrode Array Study: The Appendix D2: Marine Resources Assessment assessed marine resources for the proposed Electrode Array being 3 miles offshore (Appendix D2: pages 1, 7, and 70) instead of the proposed Project being 2 miles offshore as stated in the Draft EIR. CSLC staff requests that the Final EIR provide an explanation of how the existing data for the proposed Electrode Array being 2 miles offshore is okay using the supporting data that is for the Electrode Array to be 3 miles offshore.

f) Width of Survey Corridor: Page 1 of Fugro's Geophysical Survey Report (Appendix D1) states that a 1,200-foot corridor (600 feet on either side) was surveyed April 23 to June 1, 2012) along both the primary and the proposed optional cable routes. However, the Draft EIR states on page 3-49 that the rock outcroppings would be avoided for the marine cables because the survey corridor's width is approximately 1,440 feet. Please clarify the width of the survey corridor or provide an explanation of how this survey can be used for the proposed Project.

4. Consultation: The CSLC has an existing lease, PRC No. 7121.9, with the CDFW to maintain an artificial fishing reef in the Project vicinity CSLC staff requests that (1) the Final EIR include results of any consultations with CDFW staff on leaving structures in the ocean as an artificial reef, and (2) that the CDFW be added to Table 6-2 (page 6-3) as a state agency consulted for this Project.

Biological Resources

5. Using One or Two Jet Plows: The Project description (page 2-22) is unclear about whether the use of one jet plow, or two jet plows operating simultaneously, to lay down the two parallel cables (spaced 20 feet apart) will generate similar or different environmental impacts. CSLC staff requests that the Final EIR analyze possible environmental impacts for both one and two jet plows.

6. Water Turbidity from Jet Plow: The Draft EIR states that cable installation using one or two jet plows would take about 1 month and that the turbidity created would be "... localized and temporary, and suspended sediment is anticipated to settle relatively rapidly, generally during the ebb and flow of a single tidal cycle." However, there is no reference provided for this analysis. CSLC staff request that additional information be provided in the Final EIR about the size of sand particles, turbidity based on this size of sand particles, turbidity from using one or two jet plows, and the duration of dust plumes on the ocean floor (Appendix D.3: page 18). This

information could help support why no mitigation measures are proposed for biological resources or water quality impacts associated with turbidity.

7. Water Intake for Jet Plow: As explained on page 2-22, a jet plow takes water in from the ocean floor in order to create enough pressure in the water stream to be able to plow (cut) approximately 5 feet into the soft-bottom habitat on the ocean floor to bury the marine cables. However, the Draft EIR does not provide sufficient detail about the water intake process. CSLC staff requests that the Final EIR further discuss the water intake function of the jet plows and possible environmental impacts (e.g., would screens on the plow intakes help prevent marine wildlife entrainment?).

8. Underwater Noise

   a) Jet Plow Operation: Page 3-58 states "...because the cable laying activity for the SGRS marine facility would occur for a very brief period in any given location, this would be localized and temporary effect, which in isolation would not represent a significant impact on marine biological resources." Page 3-58 also states that noise from laying cable by jet plowing may temporarily displace fish within the water column from the vicinity of construction activities. The Draft EIR concludes that noise impacts to marine biological resources would be less than significant, and that no mitigation measures are required (page ES-13). However, it is not clear if possible noise impacts from using either one or two jet plows would still be the same. CSLC staff requests that the Final EIR analyze possible environmental impacts for both one and two jet plows.

   b) Placement of Concrete Vaults on Seafloor: Page 3-58 explains that "... the actual setting of the concrete vaults on the ocean floor is not anticipated to create substantial noise." However, there is no further explanation of how lowering a 20-ton cement vault to the seafloor by a crane would not generate any underwater noise. CSLC requests that the Final EIR include additional information for a reader to better understand this analysis.

   c) Underwater Noise Consultations: CSLC staff requests that the Final EIR include results of all consultations with the appropriate agencies like the California Department of Fish and Wildlife (CDFW), U.S. Fish and Wildlife, and National Oceanic and Atmospheric Administration (NOAA) Fisheries on how it was determined that there would be no underwater noise impacts to the marine wildlife and how noise levels would be monitored to keep below the recommended thresholds.

9. Connections between Marine Cables, Culverts, and Vaults: CSLC staff requests that additional information be included in the Final EIR explaining (and showing, if possible) the connections between the culverts and the marine cables and then between the marine cables and the vaults in order to evaluate the potential to create hazard or safety impact for marine organisms or others.

Cultural Resources

10. Title to Resources: BMP-2 on page ES-13 in the Cultural Resources section should include the following: "The final disposition of archaeological, historical, and

paleontological resources recovered on State lands under the jurisdiction of the CSLC must be approved by the CSLC."

11. Native American Monitors: Staff notes that an email submitted by the Gabrieleno Band of Mission Indians, a contact provided by the Native American Heritage Commission, is not referenced in Table 6-8 (page 6-10) of the Draft EIR. Staff requests that the Draft EIR address the status of the request by the Gabrieleno Band of Mission Indians for onsite monitoring during all ground disturbances by one of their experienced and certified Native American monitors (Appendix E, page 544).

Climate Change

12. Greenhouse Gases (GHG): The GHG emissions analysis on page 3-10 does not appear to accurately analyze GHG emissions for the proposed Project. CSLC staff requests that the GHG analysis in the Final EIR should identify a significance threshold for GHG emissions, calculate the level of GHGs that would be emitted as a result of construction and ultimate build-out of the Project, and determine the significance of the impacts of those emissions. If impacts are significant, CSLC staff requests that appropriate mitigation measures be proposed in the Final EIR that would help reduce possible impacts to less than significant levels.

Thank you for the opportunity to comment on the Draft EIR for the Project. As a responsible and trustee agency, the CSLC will need to rely on the Final EIR for the issuance of any amended lease as specified above and, therefore, we request that you consider our comments prior to certification of the EIR.

Please send copies of future Project-related documents, including electronic copies of the Final EIR, Mitigation Monitoring Program, Notice of Determination, CEQA Findings and, if applicable, Statement of Overriding Considerations when they become available, and refer questions concerning environmental review to Afifa Awan, Environmental Scientist, at (916) 574-1891 or via e-mail at Afifa.Awan@slc.ca.gov. For questions concerning archaeological or historic resources under CSLC jurisdiction, please contact Assistant Chief Counsel Pam Griggs at (916) 574-1854 or via e-mail at Pamela.Griggs@slc.ca.gov. For questions concerning CSLC leasing jurisdiction, please contact Drew Simpkin, Public Land Management Specialist, at (916) 574-2275, or via e-mail at Drew.Simpkin@slc.ca.gov.

Sincerely,

Cy R. Oggins, Chief
Division of Environmental Planning
and Management

cc: Office of Planning and Research
A. Awan, CSLC
K. Colson, CSLC
D. Simpkin, CSLC

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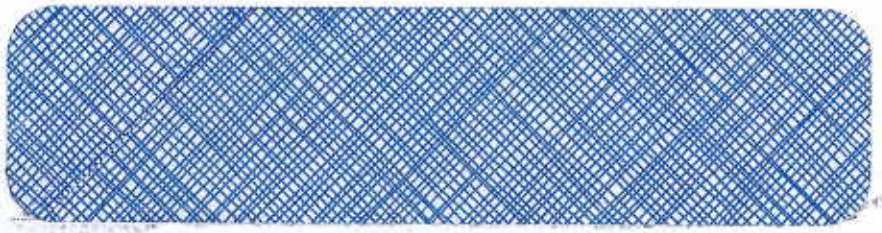

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Response to Letter 4

State Clearinghouse
Scott Morgan, Director
April 26, 2016

Response 4-1

This comment letter acknowledges that one comment letter submitted by the CSLC was received by the State Clearinghouse after the end of the specified Draft EIR public review period. However, LADWP received a copy of the same comment letter within the 45-day public review period directly from CSLC. Detailed responses to CSLC comments are provided in Response to Letter 2. No further issues related to the Draft EIR are raised in the State Clearinghouse letter and, therefore, no further response is required.

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CHAPTER 3: ERRATA

3.1 INTRODUCTION

This Errata section includes recommended clarifications and revisions to the Draft EIR. Text changes shown in this section include those made as a result of comments received on the Draft EIR during the public review period. This section is organized by respective sections of the Draft EIR. Deleted text is shown as ~~strike-out~~ (deletions) and new text is underlined (addition). The changes to the Draft EIR shown in this section do not affect the overall conclusion of the environmental analysis relative to the significance of impacts.

3.2 CLARIFICATIONS AND REVISIONS

Executive Summary

Section ES.5 on page ES-2, has been revised and incorporated into the Final EIR as follows:

> The proposed marine facility would originate at the existing Gladstone Vault. As state above, the existing Gladstone Vault is the termination point of the existing underground segment of the SGRS. Utilizing existing conduit, the marine cables would extend from the vault under the parking lot and Will Rodgers State Beach and continue under the ocean floor to a location approximately 1,200 feet offshore in Santa Monica Bay. From there, the marine cables would be installed within plowed furrows ~~several feet~~ an average depth of about five feet below the ocean floor, extending to the proposed electrode array, which would be located approximately two miles south-southwest from shore on the surface of the ocean floor at a depth of about 100 feet below mean sea level.

Section ES.6.1 on page ES-6 has been revised and incorporated into the Final EIR as follows:

> Once the cables had been installed in the conduit to reach soft-bottom conditions, the marine cable installation would proceed by means of a water-jet plow, which would bury the cables ~~several feet~~ an average depth of about five feet below the ocean floor to the site of the electrode array, about two miles offshore. The cables would be installed in two separate bundled sets, each consisting of three cables encased in a common HOPE jacket. A cable-laying vessel would provide a continuous feed of the bundled cable sets from an onboard reel to the jet plow as it proceeds along the floor. The two bundled sets would be installed in separate furrows spaced about 20 feet apart. This may be accomplished by utilizing two plows simultaneously (if available and economically feasible) working in parallel in a single pass, or it may require the use of a single plow making two passes.

Section ES.6.1 on page ES-6 has been revised and incorporated into the Final EIR as follows:

> Once the cables had been installed in the conduit to reach soft-bottom conditions, the marine cable installation would proceed by means of a water-jet plow, which would bury the cables several feet below the ocean floor to the site of the electrode array, about two miles offshore. The cables would be installed in two separate bundled sets, each consisting of three cables encased in a common HDPE jacket. A cable-laying vessel would provide a continuous feed of the bundled cable sets from an on board reel to the jet plow as it proceeds along the floor. The two bundled sets would be installed in separate furrows spaced about 20 feet apart. To adequately monitor and control the cable installation process, ~~This may~~ this would be accomplished by utilizing ~~two plows simultaneously (if available and economical feasible) working in parallel in a single pass,~~

~~or it may require the use of~~ a single plow making two passes, rather than two plows working in parallel making a single pass.

A new BMP-2, Pre-Construction Survey, has been added to Table ES-1, Summary of Project Impacts and Mitigation Measures (Section ES.8, page ES-11). Table ES-1 has been revised and incorporated into the Final EIR as follows:

Best Management Practices:

BMP-2 Pre-Construction Survey

A pre-construction survey utilizing a remotely operated vehicle (ROV) would be conducted to ensure that Project facilities (buried cables and electrode array) would be located within soft-bottom conditions, which is necessary for facilities installation but would also ensure avoidance of rocky reef and kelp habitat.

The subsequent BMPs in Table ES-1 have been renumbered accordingly. The BMPs have also been renumbered in accordance with the changes in Table ES-1 in the Draft EIR on pages 3-2, 3-65, 3-66, 3-99, 3-100, 3-101, 3-111, and 3-112.

The previously numbered BMP-2, Archaeological Resources, (now BMP-3) in Table ES-1 (Section ES.8, page ES-13) has been revised and incorporated into the Final EIR as follows:

Should previously unknown archaeological resources be found during project construction activities, all activities shall cease in the immediate area of the discovered resource. A project archaeologist shall be retained to first determine whether the resource discovered is a unique archaeological resource pursuant to Section 21083.2(g) of the PRC or a historical resource pursuant to Section l5064.5(a) of the CEQA Guidelines. If the archaeological resource is determined to be a unique archaeological resource or a historical resource, the archaeologist shall recommend disposition of the site and formulate a mitigation plan in consultation with LADWP and CSLC that satisfies the requirements of Section 21083.2 of the PRC and/or Section 15064.5 of the CEQA Guidelines. The final disposition of archaeological, historical, and paleontological resources recovered on State lands under the jurisdiction of the CSLC must be approved by the CSLC. If the archaeologist determines that the archaeological resource is not a unique archaeological resource or historical resource, the site will be recorded and the site form submitted to the California Historical Resource Information System (CHRIS) at the South Central Coastal Information Center (SCCIC). The archaeologist shall prepare a report of the results of any study prepared following accepted professional practice and guidelines of the California Office of Historic Preservation. Copies of the report shall be submitted to the CHRIS at the SCCIC.

Chapter 1 Introduction

Table 1-3 on page 1-7 has been modified to reflect that the abandonment in place of the existing SGRS marine facilities is subject to approval by the CSLC. Table 1-3 has been revised and incorporated into the Final EIR as follows:

Accepting Authority/Approving Agency: California State Lands Commission

Permit/Approval: Existing SGRS Permit

Triggering Action: Abandonment in place of the existing SGRS marine facilities is subject to approval by the CSLC

Statutory Reference: N/A

Chapter 2 Project Description

Section 2.4.3 on page 2-12 has been revised and incorporated into the Final EIR as follows:

> As mentioned above, the proposed marine facility would originate at the existing Gladstone Vault. Utilizing the existing conduit, the marine cables would extend from the vault under the parking lot and Will Rodgers State Beach and continue under the ocean floor to a location approximately 1,200 feet offshore in Santa Monica Bay. From there, the marine cables would be installed within plowed furrows ~~several feet~~ an average depth of about five feet below the ocean floor, extending to the proposed electrode array, which would be located approximately two miles south-southwest from shore on the surface of the ocean floor at a depth of about 100 feet below mean sea level (see Figure 2-3, Proposed and Existing Marine Facility Location).

Section 2.5.1 on page 2-22 has be revised and incorporated into the Final EIR as follows:

> Once the cables had been installed in the conduit to reach soft-bottom conditions, the marine cable installation would proceed by means of a water-jet plow, which would bury the cables ~~several feet~~ an average depth of about five feet below the ocean floor to the site of the electrode array, about two miles offshore. The cables would be installed in two separate bundled sets, each consisting of three cables encased in a common HDPE jacket. These cables would be spliced to the cable spans that were previously installed in the conduit leading from the Gladstone Vault. A cable-laying vessel would provide a continuous feed of the bundled cable sets from an on board reel to the jet plow as it proceeds along the floor. The two bundled sets would be installed in separate furrows spaced about 20 feet apart. This may be accomplished by utilizing two plows simultaneously (if available and economically feasible) working in parallel in a single pass, or it may require the use of a single plow making two passes.

Figure 2-4 (Section 2.4.4 on page 2-17) has been revised to include the following note in the legend in order to clarify the conceptual layout of the proposed electrode array vaults (revised Figure 2-4 is provided in Appendix A [Revised Figure] of the Final EIR).

> Two separate cable bundles, each 3.2 inches in diameter and buried approximately five feet below the ocean floor, would generally follow the corridor centerline in separate furrows spaced approximately 20 feet apart.

Section 2.5.1 on page 2-22 has been revised and incorporated into the Final EIR as follows:

> Once the cables had been installed in the conduit to reach soft-bottom conditions, the marine cable installation would proceed by means of a water-jet plow, which would bury the cables several feet below the ocean floor to the site of the electrode array, about two miles offshore. The cables would be installed in two separate bundled sets, each consisting of three cables encased in a common HDPE jacket. These cables would be spliced to the cable spans that were previously installed in the conduit leading from the Gladstone Vault. A cable-laying vessel would provide a continuous feed of the bundled cable sets from an onboard reel to the jet plow as it proceeds along the floor. The two bundled sets would be installed in separate furrows spaced about 20 feet apart. To adequately monitor and control the cable installation process, ~~This may~~ this would be accomplished by utilizing ~~two plows simultaneously (if available and economically feasible) working in parallel in a single pass, or it may require the use of~~ a single plow making two passes, rather than two plows working in parallel making a single pass.

A new BMP-2, Pre-Construction Survey, has been added to Table 2-2, Best Management Practices (Chapter 2, page 2-25). Table 2-2 has been revised and incorporated into the Final EIR as follows:

> **Pre-Construction Survey**
>
> A pre-construction survey utilizing a remotely operated vehicle (ROV) would be conducted to ensure that Project facilities (buried cables and electrode array) would be located within soft-bottom conditions, which is necessary for facilities installation but would also ensure avoidance of rocky reef and kelp habitat.

The subsequent BMPs in Table 2-2 have been renumbered accordingly. The BMPs have also been renumbered in accordance with the change in Table 2-2 in the Draft EIR on pages 3-2, 3-65, 3-66, 3-99, 3-100, 3-101, 3-111, and 3-112.

The previously numbered BMP-2, Archaeological Resources, (now BMP-3) in Table 2-2 (Section 2.5.5, page 2-25) has been revised and incorporated into the Final EIR as follows:

> Should previously unknown archaeological resources be found during project construction activities, all activities shall cease in the immediate area of the discovered resource. A project archaeologist shall be retained to first determine whether the resource discovered is a unique archaeological resource pursuant to Section 21083.2(g) of the PRC or a historical resource pursuant to Section l5064.5(a) of the CEQA Guidelines. If the archaeological resource is determined to be a unique archaeological resource or a historical resource, the archaeologist shall recommend disposition of the site and formulate a mitigation plan in consultation with LADWP and CSLC that satisfies the requirements of Section 21083.2 of the PRC and/or Section 15064.5 of the CEQA Guidelines. The final disposition of archaeological, historical, and paleontological resources recovered on State lands under the jurisdiction of the CSLC must be approved by the CSLC. If the archaeologist determines that the archaeological resource is not a unique archaeological resource or historical resource, the site will be recorded and the site form submitted to the California Historical Resource Information System (CHRIS) at the South Central Coastal Information Center (SCCIC). The archaeologist shall prepare a report of the results of any study prepared following accepted professional practice and guidelines of the California Office of Historic Preservation. Copies of the report shall be submitted to the CHRIS at the SCCIC.

Chapter 3 Environmental Setting and Impacts

A new Section 3.3.3 on page 3-45 (Section 3.3, Biological Resources) has been added and incorporated into the Final EIR as follows:

3.3.3 Best Management Practices

The following BMP would apply to the proposed Project and would avoid potential impacts to biological resources.

BMP-2 Pre-Construction Survey

A pre-construction survey utilizing a remotely operated vehicle (ROV) would be conducted to ensure that Project facilities (buried cables and electrode array) would be located within soft-bottom conditions, which is necessary for facilities installation but would also ensure avoidance of rocky reef and kelp habitat.

The subsequent heading numbers in Section 3.3, Biological Resources, have been revised and incorporated into the Final EIR as follows:

3.3.~~3~~ 4 Impact Analysis (page 3-45)

3.3~~.4~~ 5 Cumulative Impacts (page 3-59)

3.3.~~5~~ 6 Mitigation Measures and Level of Significance After Mitigation (page 3-59)

The previously numbered Section 3.3.3, Impact Analysis, on page 3-45 (now Section 3.3.4) has been revised and incorporated into the Final EIR as follows:

> Installation of the cables in the nearshore environment (i.e., within 1,200 feet of the shoreline) would be accomplished by pulling the cables through the existing conduits under the seafloor, thus avoiding impacts to the intertidal and shallow subtidal environment and associated biota. Within deeper portions of the Project area, cables would be installed by means of a jet plow, which would bury the cables ~~several feet~~ an average depth of about five feet below the ocean floor approximately two miles from shore to the site of the electrode array. The concrete electrode vaults would be lowered through the water column from a barge and set in place on the ocean floor. All construction would occur in areas of soft-bottom habitat. There are no kelp beds or other sensitive habitats along the proposed cable route except for a rock outcropping approximately 1,800 feet offshore of the Gladstone Vault (Figure 3.3-2).

The previously numbered Section 3.3.3, Impact Analysis, on page 3-50 (now Section 3.3.4) has been revised and incorporated into the Final EIR as follows:

> As discussed above, the proposed marine facility would originate at the existing Gladstone Vault. Utilizing existing conduit, the marine cables would extend from the vault through the conduit, under the parking lot and Will Rogers State Beach, and continue under the ocean floor to a location approximately l ,200 feet offshore in Santa Monica Bay. From there, the marine cables would be installed within a plowed furrow ~~several feet~~ an average depth of about five feet below the ocean floor, extending to the proposed electrode array. Thus, the construction of the SGRS marine facility would completely avoid and have no impact on any federally protected wetlands as defined by Section 404 of the Clean Water Act.

The previously numbered BMP-2, Archaeological Resources, (now BMP-3) in Section 3.4.3 on page 3-65 bas been revised and incorporated into the Final EIR as follows:

> Should previously unknown archaeological resources be found during project construction activities, all activities shall cease in the immediate area of the discovered resource. A project archaeologist shall be retained to first determine whether the resource discovered is a unique archaeological resource pursuant to Section 21083.2(g) of the PRC or a historical resource pursuant to Section l5064.5(a) of the CEQA Guidelines. If the archaeological resource is determined to be a unique archaeological resource or a historical resource, the archaeologist shall recommend disposition of the site and formulate a mitigation plan in consultation with LADWP and CSLC that satisfies the requirements of Section 21083.2 of the PRC and/or Section 15064.5 of the CEQA Guidelines. The final disposition of archaeological, historical, and paleontological resources recovered on State lands under the jurisdiction of the CSLC must be approved by the CSLC. If the archaeologist determines that the archaeological resource is not a unique archaeological resource or historical resource, the site will be recorded and the

site form submitted to the California Historical Resource Information System (CHRIS) at the South Central Coastal Information Center (SCCIC). The archaeologist shall prepare a report of the results of any study prepared following accepted professional practice and guidelines of the California Office of Historic Preservation. Copies of the report shall be submitted to the CHRIS at the SCCIC.

Chapter 8 References

The following references have been added to Chapter 8, References. Chapter 8 has been revised and incorporated into the Final EIR as follows:

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APPENDIX A REVISED FIGURE

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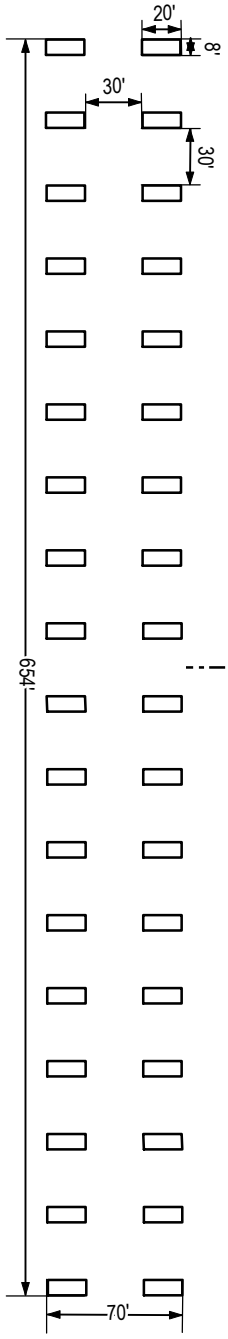

Centerline of Proposed Marine Cable Corridor

Vault

Note:
Two separate cable bundles, each 3.2 inches in diameter and buried approximately five feet below the ocean floor, would generally follow the corridor centerline in separate furrows spaced approximately 20 feet apart.

FIGURE 2-4
PROPOSED ELECTRODE ARRAY CONCEPTUAL LAYOUT

SYLMAR GROUND RETURN SYSTEM REPLACEMENT PROJECT

POWER ENGINEERS

LA DWP

Date: 5/27/2016 Path: H:\127116\DD\GIS\Apps\RDEIR\Figure_2-4_Proposed_Electrode_Array.mxd

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APPENDIX B MITIGATION MONITORING AND REPORTING PROGRAM

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SYLMAR GROUND RETURN SYSTEM REPLACEMENT PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM

NUMBER	MITIGATION MEASURES/BMP'S	MONITORING TIMEFRAME	ENFORCING MONITORING AGENCY	VERIFICATION OF COMPLIANCE		
				Initials	Date	Remarks
Air Quality/Greenhouse Gas Emissions						
BMP-1	**Fugitive Dust Control Plan** Construction of the Project would be subject to the South Coast Air Quality Management District's (SCAQMD) Rule 403, Fugitive Dust. In compliance with this rule, a dust control supervisor shall be identified for the Project and shall supervise implementation of the SCAQMD-approved dust control plan. The plan will itemize measures related to vehicle trackout, stabilizing soils, water application, and maintenance of soil moisture content.	During construction	LADWP			
MM AIR-1	Equipment Maintenance – All equipment shall be properly tuned and maintained in accordance with manufacturer's specifications.	During construction	LADWP			
MM AIR-2	Equipment Operation – The contractor shall maintain and operate construction equipment to minimize exhaust emissions. During construction, trucks and vehicles will minimize idling when not in use to the extent feasible.	During construction	LADWP			
MM AIR-3	Catalytic Converters – Catalytic converters shall be installed on all heavy construction equipment, where feasible.	During construction	LADWP			
Biological Resources						
MM BIO-1	**Marine Mammal and Sea Turtle Avoidance Practices** 1. A biological monitor will be required on vessels and, when appropriate, in the water during construction activities within Santa Monica Bay and will have the authority in coordination with LADWP to halt and redirect construction activities to avoid adverse impacts to marine wildlife. If a sea turtle or marine mammal is identified within 100 meters of the construction work zone, construction activity shall be temporarily halted until the sea turtle or marine mammal moves safely beyond this distance. 2. Construction and vessel crews will be trained to recognize and avoid marine mammals and sea turtles prior to initiation of Project construction activities. 3. Vessels involved in construction activities will maintain a steady course and slow speed. 4. Any collisions with marine wildlife will be reported promptly to state and federal resource agencies.	During construction	LADWP			
BMP-2	**Pre-Construction Survey** A pre-construction survey utilizing a remotely operated vehicle (ROV) would be conducted to ensure that Project facilities (buried cables and electrode array) would be located within soft-bottom conditions, which is necessary for facilities installation but would also ensure avoidance of rocky reef and kelp habitat.	During construction	LADWP			

SYLMAR GROUND RETURN SYSTEM REPLACEMENT PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM

NUMBER	MITIGATION MEASURE/BMP'S	MONITORING TIMEFRAME	ENFORCING MONITORING AGENCY	VERIFICATION OF COMPLIANCE		
				Initials	Date	Remarks
Cultural Resources						
BMP-3	Archaeological Resources Should previously unknown archaeological resources be found during project construction activities, all activities shall cease in the immediate area of the discovered resource. A project archaeologist shall be retained to first determine whether the resource discovered is a unique archaeological resource pursuant to Section 21083.2(g) of the California Public Resources Code (PRC) or a historical resource pursuant to Section 15064.5(a) of the CEQA Guidelines. If the archaeological resource is determined to be a unique archaeological resource or a historical resource, the archaeologist shall recommend disposition of the site and formulate a mitigation plan in consultation with LADWP and CSLC that satisfies the requirements of Section 21083.2 of the PRC and/or Section 15064.5 of the CEQA Guidelines. The final disposition of archaeological, historical, and paleontological resources recovered on State lands under the jurisdiction of the CSLC must be approved by the CSLC. If the archaeologist determines that the archaeological resource is not a unique archaeological resource or historical resource, the site will be recorded and the site form submitted to the California Historical Resource Information System (CHRIS) at the South Central Coastal Information Center (SCCIC). The archaeologist shall prepare a report of the results of any study prepared following accepted professional practice and guidelines of the California Office of Historic Preservation. Copies of the report shall be submitted to the CHRIS at the SCCIC.	During construction	LADWP			
BMP-4	Human Remains In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found, the County Coroner shall be notified within 24 hours of the discovery. No further disturbance of the site or any nearby area reasonably suspected to overlie other remains shall occur until the Coroner has determined, within two working days of notification of the discovery, the appropriate treatment and disposition of the human remains. If the Coroner determines that the remains are or are believed to be Native American, the Coroner shall notify the Native American Heritage Commission (NAHC) in Sacramento within 48 hours. In accordance with PRC Section 5097.98, the NAHC must immediately notify those persons it believes to be the most likely descended from the deceased Native American. The descendants shall complete an inspection of the site within 48 hours of being granted access. The designated Native American representative shall then determine, in consultation with LADWP, the disposition of the human remains.	During construction	LADWP			

SYLMAR GROUND RETURN SYSTEM REPLACEMENT PROJECT
MITIGATION MONITORING AND REPORTING PROGRAM

NUMBER	MITIGATION MEASURE/BMP'S	MONITORING TIMEFRAME	ENFORCING MONITORING AGENCY	VERIFICATION OF COMPLIANCE		
				Initials	Date	Remarks
Recreation and Fishing						
BMP-5	Marine Location Markings The position of the electrode array will be marked using surface buoys, and the United States Coast Guard (USCG) and other responsible entities will be notified of the position and as-built characteristics of the electrode array and underwater cables.	During construction and Project operation	LADWP			
BMP-6	Issuance of Notices Advance notice of construction activities shall be provided to local recreational and commercial boaters and fisherman through the USCG Notice to Mariners regarding the restrictions in the use of the Project area with sufficient lead-time for affected persons to plan for alternate times and places to perform offshore activities. In addition, LADWP shall post notices in the harbor master's offices at least 15 days in advance of in-water construction activities.	Prior to construction	LADWP			
Water Quality						
BMP-7	Hazardous Materials As required by the Clean Air Act, Section 401 of the Clean Water Act, the Toxic Substance Control Act, and the Hazardous Materials Transportation Act, all vehicles, vessels, and equipment must be in proper working condition to avoid fugitive emissions or accidental release of motor oil, fuel, antifreeze, hydraulic fluid, grease, or other hazardous materials. To reduce potential for accidental spills and discharges that could impact water and sediment quality during construction, the following are recommended: ● Discharge of hazardous materials during construction activities into the Project area shall be prohibited. ● A comprehensive spill prevention control and countermeasure plan shall be developed that documents management practices that will be enacted to limit the potential for accidental spills. ● An environmental protection plan shall be developed that addresses issues related to storage and handling of fuel, waste disposal, equipment and vessel operation, and field policies. ● All debris and trash shall be disposed of in appropriate trash containers on land or on construction barges by the end of each construction day.	During construction	LADWP			