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February 1, 2016

LB Nye, Senior Environmental Scientist
Regional Water Quality Control Board
Los Angeles Region
320 West Fourth Street
Los Angeles, CA 90013

Re: Section 401 Water Quality Certification Application for Southern California Edison's Mesa 500 kilovolt Substation Project

Dear Ms. Nye:

Southern California Edison (SCE) is proposed to construct the Mesa 500 kilovolt (kV) Substation Project (Project). Construction of the Project will result in approximately 0.37 acre of permanent impacts and 0.09 acre of temporary impacts to waters of the U.S. Construction of the Proposed Project is anticipated to begin in July of 2016 and be completed by the end of December 2020.

The enclosed application package includes the following:

- A check in the amount of $90,000, made payable to the State Water Resources Control Board
- Completed Section 401 Water Quality Certification Application Form
- Attachment A: Supplemental Information, containing a detailed explanation for the following sections of the permit application:
    - Box 2B: Project Description, Purpose/Goal
    - Box 2C: Project Description, Project Activities
    - Box 4: Other Licenses/Permits/Agreements
    - Box 6A: Project Site Description, Project Location
    - Box 6B: Project Site Description, Longitude/Latitude
    - Box 7B: Impacted Water Bodies
    - Box 7C/D: Impacted Water Bodies, Dredged Material to be Discharged
    - Box 10: Past/Future Proposals by the Applicant
- Attachment B: Figures, including:
    - Figure 1: Project Components Overview Map
    - Figure 2: Proposed Substation Layout
    - Figure 3: Grading Phases Areas
    - Figure 4: Impacts to CDFW-Jurisdictional Waters Overview
    - Figure 5: Impacts to Waters of the U.S. – Typical Plan and Cross-Section Drawing
- Attachment C: Photographs of Impacted Water Features
- Attachment D: Section 404 Nationwide Permit
- Attachment E: California Department of Fish and Wildlife Section 1602 Notification of Lake or Streambed Alteration
- An electronic version of the entire Section 401 Water Quality Certification package on CD

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We appreciate your review and input to this point, and look forward to continuing to work with you on permitting the Project. Should you have any questions about the enclosed, please do not hesitate to contact me at (626) 404-4048.

Sincerely,

Richard Haywood
Senior Regulatory Specialist
Southern California Edison
Gateway Business Center
6040A Irwindale Avenue,
Irwindale, CA 91702
(626) 404-4048
Richard.haywood@sce.com

# SECTION 401 WATER QUALITY CERTIFICATION APPLICATION FORM

Applications for Water Quality Certification shall be filed in accordance with Sections 3830 through 3869 of Title 23 of the California Code of Regulations. An initial deposit of **$600.00** must accompany all applications except for projects qualifying for a flat fee category in which case the flat fee should be remitted with the application. Please include a check made out to the State Water Resources Control Board. After the certification has become effective annual fees will be based on the fee schedule at time of billing. The schedule of fees can be found at: http://www.waterboards.ca.gov/losangeles/water_issues/programs/401_water_quality_certification/. **Failure to submit this fee deposit will make this application incomplete. Submit your completed application form to the address above, Attn: 401 Certification Staff.** Attach additional sheets as necessary.

## 1. APPLICANT/AGENT INFORMATION

| | |
|---|---|
| Applicant: Southern California Edison Company (SCE) | b) Agent/Consultant*: Richard Haywood |
| Main Contact: Hazem Gabr | Main Contact: |
| Address: Gateway Business Center<br>6040A Irwindale Avenue<br>Irwindale, CA 91702 | Address: Gateway Business Center<br>6040A Irwindale Avenue<br>Irwindale, CA 91702 |
| Email: Hazem.gabr@sce.com | Email: Richard.haywood@sce.com |
| Phone No. (626) 462-8715 | Phone No. (626) 462-8632 |
| Fax No. Not applicable (N/A) | Fax No. N/A |

*Complete only if applicable

## 2. PROJECT DESCRIPTION

a) Project Title:

Mesa 500 kilovolt (kV) Substation Project (Project)

b) Purpose/Goal:

The Project will address reliability concerns resulting from the pending shutdown of certain generation facilities that rely on Once Through Cooling technology, as well as the recent retirement of the San Onofre Nuclear Generating Station. Box 2B in Attachment A: Supplemental Information provides a more detailed description of the Project's purpose/goals.

c) Project Activities: (Attach additional sheets as necessary)

*Please provide a detailed explanation of all project activities. Include information such as: avoidance and minimization measures for project impacts; alternatives analysis; project activity impacts to waterbodies and/or water quality; and implementation of Low Impact Development (LID) strategies.*

The main activity associated with the Project involves the construction of an approximately 69.4-acre, 500/220/66/16 kV substation (i.e., Mesa Substation) in place of the existing, approximately 21.6-acre, 220/66/16 kV Mesa Substation. The Project is located primarily on approximately 86.2 acres of SCE fee-owned property. Construction of the proposed Mesa Substation will be conducted in phases, and the power lines from the existing Mesa Substation will be relocated to the new switchracks as they are constructed. All of the existing Mesa Substation structures and equipment will be removed.

SCE currently operates various 220 kV transmission lines, 66 kV subtransmission lines, 16 kV distribution lines, and telecommunications lines that connect to the existing Mesa Substation. As part of the Project, SCE will replace existing structures and lines, as necessary, to allow these existing circuits to connect to the proposed Mesa Substation configuration. In addition, the Project involves the loop-in of one existing 500 kV circuit and two existing 220 kV circuits that currently pass through the existing Mesa Substation property. The Project includes the following elements:

- Construct the 500/220/66/16 kV Mesa Substation. This substation will be constructed on the existing 220/66/16 kV Mesa Substation site. Mesa Substation will be a staffed, automated substation operation at 3,360 megavolt-ampere (MVA) at 500/220 kV, 840 MVA at 220/66 kV, and 56 MVA at 66/16 kV, with a potential capacity of 4,480 MVA at 500/220 kV, 1,120 MVA at 220/66 kV, and 112 MVA at 66/16 kV at ultimate build-out

- Remove, relocate, and construct new transmission, subtransmission, and distribution structures within existing SCE transmission and substation fee-owned properties, rights-of-way (ROWs), and franchise areas to accommodate the new Mesa Substation configuration

- Install new telecommunications lines and remove old telecommunications lines on existing subtransmission and distribution structures

- Install temporary steel pole structures and conductor to temporarily connect the Eagle Rock-Mesa 220 kV Transmission Line to Goodrich Substation and provide a second line of service to the City of Pasadena during the line outage required to loop-in the existing Goodrich-Laguna Bell 220 kV Transmission Line to Mesa Substation

- Perform minor internal modifications within the existing fenced perimeter of multiple existing substations

- Convert three spans of existing streetlight source lines from overhead to underground below one span of the Lighthipe-Mesa 220 kV Transmission Line

The Project components are described in more detail in the following subsections, and are shown in Figure 1: Project Components Overview Map in Attachment B: Figures.

The proposed Mesa Substation will be constructed on approximately 69.4 acres within 86.2 acres of SCE fee-owned property located in the City of Monterey Park, in Los Angeles County. The existing Mesa Substation occupies approximately 21.6 acres within the same approximately 69.4-acre area that the proposed Mesa Substation will be constructed. Figure 2: Proposed Substation Layout in Attachment B: Figures shows the dimensions of the substation parcel and the placement and orientation of the major components that will be included in the construction of Mesa Substation. Construction of Mesa Substation includes the following main components:

- Construct a new 500 kV switchrack with three 500/220 kV transformer banks

- Loop-in the existing Mira Loma-Vincent 500 kV Transmission Line (which currently passes through the substation without landing on a rack position) to the new 500 kV switchrack with new overhead getaways

- Replace existing 220/66/16 kV switchracks, three 220/66 kV transformer banks, and two 66/16 kV transformer banks

- Relocate eight existing 220 kV transmission lines to the new 220 kV switchrack with new overhead getaways

- Loop-in the existing Goodrich-Laguna Bell 220 kV and Laguna Bell-Rio Hondo 220 kV transmission lines (which both currently pass through the existing substation without landing on a rack position) to the new 220 kV switchrack with new overhead getaways

- Relocate 16 existing 66 kV subtransmission lines to the new 66 kV switchrack with new underground getaways

- Relocate five existing 16 kV distribution lines to the new 16 kV switchrack with new underground getaways

- Construct two new Mechanical Electrical Equipment Rooms (MEERs), a Test and Maintenance Building, and an Operations Building

- Relocate various telecommunications cables

- Remove a Metropolitan Water District of Southern California 72-inch-diameter waterline that currently runs through the middle of the proposed Mesa Substation property and replace it with an 84-inch-diameter waterline to a westerly location on the substation site

- Relocate two sets of third-party cellular telephone buildings, towers, and antennas to the northeast corner of the property

- Install new 16 kV distribution Station Light and Power supplies from the existing franchise areas adjacent to Mesa Substation to replace the existing supplies

Development of the substation site includes a storm water system. A detention pond will be developed in the southwest corner of the substation site, as depicted in Figure 2: Proposed Substation Layout in Attachment B: Figures. The detention pond will be approximately 1 acre with a capacity of approximately 455,000 gallons, and will be constructed from mulch, gravel, soil, and geotextile membrane layers. Water runoff around the transformer banks will flow into a catch basin system installed around each transformer, which connects to a drainage pipe that flows into a concrete-lined detention basin that measures approximately 100 feet long, 50 feet wide, and 20 feet deep. Drainage systems will be constructed along the perimeter of the substation to direct interior surface runoff to the detention pond.

Primary access to the proposed Mesa Substation will be provided from Potrero Grande Drive via a new asphalt and/or concrete access driveway. Secondary access will be provided via a new access driveway off of East Markland Drive. The entrance at Potrero Grande Drive will be approximately 50 feet wide, and the entrance at East Markland Drive will be approximately 30 feet wide. Gates will be installed at both driveway entrances. SCE will construct a sidewalk along Potrero Grande Drive outside of the substation and will provide landscaping around the entire perimeter.

The proposed substation will be enclosed on all sides by a perimeter wall measuring approximately 10 to 12 feet high, which will satisfy the City of Monterey Park's requirements for materials and aesthetics. Barbed wire and/or razor wire will be affixed near the top of the perimeter enclosure inside of the substation and will not be visible from the outside.

**Construction**

***Staging Areas***

Construction of the Project will require the establishment of temporary staging yards. Two types of staging yards will be used during construction—substation construction staging yards and transmission, subtransmission, distribution, and/or telecommunications construction staging yards. Staging yards will be used as a reporting location for workers, vehicle and equipment parking, and material storage. The yards may have construction trailers for supervisory and clerical personnel to serve as office and meeting locations. Staging yards may be lit for security purposes. Normal maintenance

and refueling of construction equipment will also be conducted at these yards. All refueling and storage of fuels will be in accordance with the Project's Storm Water Pollution Prevention Plan (SWPPP).

The preferred acreage for each yard will be 5 to 25 acres in size, depending on land availability and the intended use. Preparation of the staging yards will include temporary perimeter fencing and—depending on existing ground conditions at the site—clearing, grubbing, and/or grading may be required to provide a plane and dense surface for the application of gravel or crushed rock in some locations. Land disturbed at the staging yards will either be returned to pre-construction conditions or left in its modified condition.

***Work Areas***

Transmission and subtransmission construction work areas serve as working areas for crews and where Project-related equipment and/or materials are placed at or near each structure location, within SCE property, existing public ROWs, or franchise areas.

The new structure pad locations and laydown/work areas will first be cleared of vegetation and/or graded as required to provide a reasonably vegetation-free and level surface for structure installation. Sites requiring grading will be graded such that water will run toward the direction of the natural drainage. In addition, the drainage will be designed to prevent ponding and erosive water flows that could cause damage to the structure footings. The graded area will be compacted to at least 90-percent relative density, and will be capable of supporting heavy vehicular traffic.

Erection of the structures may also require the establishment of temporary crane pads. Crane pads will occupy an area of approximately 50 feet by 50 feet and will be located adjacent to each applicable structure within the laydown/work area used for structure assembly. The pads may be cleared of vegetation and/or graded as necessary to provide a level surface for crane operation. The decision to use a separate crane pad will be determined during final engineering for the Project and the selection of the appropriate construction methods to be used by SCE or its Contractor.

***Access Roads and/or Spur Roads***

Where required, a network of existing access roads could be improved and new roads will be constructed to current SCE road specifications to support the construction and Operation and Maintenance (O&M) of the Project.

Typical transmission access consists of a network of unpaved and paved roads accessed from public and private roads. These access roads include a network of through roads and spur roads that are used to access transmission facilities. This network of access roads will provide access to the transmission line ROW for construction activities and future O&M activities associated with the Project.

During construction of the Project, crews will utilize existing public roads and existing transmission access roads to the maximum extent feasible. New access roads will be constructed in accordance with current SCE practices for safety during construction and O&M. Rehabilitation, road widening, and/or upgrades to existing access roads may also be required to facilitate construction access and to support O&M activities. Typical construction activities associated with the rehabilitation of existing unpaved access roads include vegetation clearing, blade-grading, grubbing, mowing, and re-compacting to remove potholes, ruts, and other surface irregularities in order to provide a surface that is capable of supporting heavy construction and maintenance equipment. Existing unpaved roads may also require additional upgrades, such as protection (e.g., soil cover and steel plates) for existing underground utilities.

Typical construction activities associated with new roads generally include similar activities as those described for the rehabilitation of existing unpaved roads, but may also include the following additional construction requirements that depend upon the existing land terrain:

- **Existing relatively flat terrain with grades up to 4 percent:** Construction activities are generally similar to rehabilitation activities on existing unpaved roads and may also require activities such as clearing and grubbing,

as well as constructing drainage improvements (e.g., wet crossings, water bars, and culverts). Detailed information on locations requiring drainage improvements will be provided during final engineering.

- **Existing rolling terrain with grades of 5 to 12 percent:** Construction activities generally include typical to flat terrain activities and may also require cut and fill in excess of 2 feet in depth, benched grading, drainage improvements (e.g., v-ditches, downdrains, and energy dissipaters), retaining walls, and slope stability improvements (e.g., geogrid reinforcement). The extent of retaining walls and slope stability improvements will be determined during final engineering, as will detailed information on locations requiring cut and fill, benched grading, and/or drainage improvements.

- **Existing mountainous terrain with grades over 12 percent:** Construction activities will include rolling terrain construction activities and will also likely require significant cut and fill depths, benched grading, drainage improvements, and slope stability improvements. Detailed information on locations requiring cut and fill, benched grading, and/or drainage improvements will be provided during final engineering.

Typical construction activities associated with temporary access could include vegetation clearing, blade-grading, grubbing, mowing, and re-compacting.

In addition, other slope stability systems considered include mechanically stabilized systems, along with drainage improvements (i.e., v-ditches, downdrains, and energy dissipaters). The extent of slope stability improvements and earth-retaining structures will be determined during final engineering.

Generally, access roads will have a minimum drivable width of 14 feet with 2 feet of shoulder on each side, as determined by the existing land terrain to accommodate required drainage features. Typically, the drivable road width will be widened up to an additional 8 feet along curved sections of the access road, creating up to 22 feet of drivable surface for the access road. Access road gradients will be leveled so that sustained grades generally do not exceed 14 percent. Curves will typically have a minimum radius of curvature of 50 feet measured from the center line of the drivable road width. Specific site locations may require a wider drivable area to accommodate multi-point turns where a minimum radius of 50 feet cannot be achieved.

Access roads will typically have turnaround areas around the structure location. In some cases where a turnaround is not practical, an alternative configuration will be constructed to provide safe ingress/egress of vehicles to access the structure location. It is common to use access road turnaround areas for the dual purpose of structure access and as a construction pad for construction activities. If a construction pad is built, it will remain a permanent feature for O&M.

The Project access roads generally follow the proposed transmission line route. Transmission line roads are classified into two groups—access roads and spur roads. Access roads are through roads that run between tower sites along a ROW and serve as the main transportation route along line ROWs. Spur roads are roads that lead from access roads and terminate at one or more structure sites due to terrain considerations and topographic constraints.

Approximately 5.6 miles of existing dirt access roads on SCE property and existing ROWs will be used to access the Project work areas. If improvements are required, they will be conducted in accordance with existing O&M practices.

***Transmission Line Construction***

Trenching

Construction activities will begin with the survey of existing underground utilities along the proposed underground subtransmission source line route.

The Project includes a total of approximately 5.5 miles of new underground 66 kV subtransmission lines and associated transition and support structures. A trench measuring approximately 2 feet wide and 5 feet deep will be required to place

the 66 kV subtransmission line underground. Trenching may be performed by using the following general steps, including but not limited to:

- mark the location and applicable underground utilities,
- lay out trench line,
- saw cut asphalt or concrete pavement as necessary,
- dig to appropriate depth with a backhoe or similar equipment, and
- install the new duct bank.

Once the duct bank has been installed, the trench will typically be backfilled with a sand slurry mix. Excavated materials will be reused as fill for the Project and/or will be disposed of at an off-site disposal facility in accordance with applicable laws if necessary. Should groundwater be encountered, it will be pumped into a tank and disposed of at an off-site disposal facility in accordance with applicable laws.

The trench for underground construction will be widened and/or shored where appropriate to meet California's Division of Occupational Safety and Health requirements. Trenching will be staged so that open trench lengths will not exceed that which is required to install the duct banks. Where needed, open trench sections will have steel plates placed over them to maintain vehicular and pedestrian traffic. Provisions for emergency vehicle access will be arranged with local agencies in advance of construction activities.

Subtransmission Vault Installation

Installation of each vault will typically take place over a one-week period, depending on soil conditions. First, the vault pit will be excavated and shored; a minimum of 6 inches of mechanically compacted aggregate base will be placed to cover the entire bottom of the pit, followed by delivery and installation of the vault. Once the vault is set, grade rings and the vault casting will be added and set to match the existing grade. The excavated area will be backfilled with a sand slurry mix to a point just below the top of the vault roof. Excavated materials, if suitable, will be used to backfill the remainder of the excavation, and any excess spoils will be disposed of at an off-site disposal facility in accordance with all applicable laws. Finally, the excavated area will be restored as required.

Fiber Optic Installation

New underground conduit and structures will typically be installed with a backhoe. The trench will be excavated to approximately 24 inches wide and a minimum of 36 inches deep. Polyvinyl chloride conduit will be placed in the trench and covered with approximately 30 inches of concrete slurry, then it will be backfilled and compacted. For manholes and pull boxes, a hole will be excavated between 6 and 9 feet deep, 7 and 8 feet long, and 6 and 7 feet wide. The manhole or pull box will be lowered into place and connected to the conduits, and the hole will be backfilled with concrete slurry.

Metropolitan Water District Water line Relocation

Initial construction activities associated with the Project include the relocation of an approximately 2,700 foot portion of the existing 72-inch Metropolitan Water District (MWD) water line. The MWD water line traverses the Mesa Substation site in a north-south direction and crosses Potrero Grande Drive. The line will be replaced with an approximately 3,800 foot long 84-inch waterline and relocated to the west of its existing configuration. The existing water line must be relocated to accommodate construction of the proposed Mesa Substation. Both the existing and proposed water lines have, and will continue to have, approximately 10 feet of cover.

Standard trenching methods will be used to install the proposed water line pipe on the north side of Potrero Grande Drive from the interception with the existing water line to the edge of the paved road, approximately 1,400 feet. South of Potrero Grande Drive, on the Mesa Substation property, trenching will be used from the south side of the road to where the new pipe intercepts the existing pipe, approximately 1,600 feet.

SCE will use the horizontal jack-and-bore construction technique to install the water line underneath Potrero Grande Drive, approximately 500 feet. Jack-and-bore is an augering operation that simultaneously pushes a casing under an obstacle and removes the spoil inside the casing with a rotating auger. Boring operations will begin with excavating bore pits at the sending and receiving ends of the bore. Boring and receiving pits will typically measure approximately 20 feet by 40 feet. The depth of the proposed bore pits will be between 10 and 20 feet. It is anticipated that between 590 and 1,180 cubic yards (CY) of material will be excavated to facilitate each jack-and-bore installation required for the Project. Following the duct bank installation, the bore pits will be backfilled using native material, and the duct bank will be covered with at least 36 inches of engineered or native fill, as appropriate. Soil not used for backfill will be hauled off site and disposed of at an approved facility.

Horizontal directional drilling

SCE will use horizontal directional drilling (HDD) to install several of the new subtransmission duct banks from the interior of the substation to the north side of Potrero Grande Drive, in order to resolve the change in grade between those areas and to help avoid impacts to other existing underground utilities typically found in the street. HDD technology is an underground boring technique that uses hydraulically powered, horizontal drilling equipment. It involves drilling along a vertical arc that passes beneath the intended feature. HDD technology utilizes lubrication containing water and bentonite clay (referred to as drilling mud) to aid the drilling, coat the walls of the bore hole, and maintain the open hole. The HDD technology uses a hydraulically powered horizontal drilling rig supported by a drilling mud tank and a power unit for the hydraulic pumps and mud pumps. A variable-angle drilling unit would initially be adjusted to the proper design angle for the particular drill. A 6- to 8-inch-diameter drill would typically be used.

The first step would be to drill a fluid-filled pilot bore. The first and smallest of the cutting heads would begin the pilot hole at the surveyed entry point. The first section of the drill stem has an articulating joint near the drill-cutting head that the HDD operator can control. Successive drill stem sections would be added as the drill head bores under the crossing. The drill head would then be articulated slightly by the operator to follow a designed path under the crossing and climb upward toward the exit point. Once the pilot hole is completed, a succession of larger cutting heads and reamers would be pulled and pushed through the bore hole until it is the appropriate size for the steel casing. Once the steel casing is in place, ducts would be installed within the steel casing using spacers to maintain the needed separation, and then the remaining space would be backfilled with a slurry mix.

During the HDD process, the underground cable to be pulled through the crossing would be strung on cable supports down the ROW or within temporary extra workspace areas.

As part of the drilling design process, geotechnical surveys of subsurface conditions would be conducted to determine the underlying geologic strata along the bore path. Infrequently, the geologic strata above the bore may be weaker than anticipated and/or unconsolidated. As the HDD passes under these locations, the high pressure of the drilling mud may result in a fracture of these strata, allowing drilling mud to rise to the surface. This situation is termed a “frac-out” and is usually resolved by reducing the mud system pressure or increasing the mud viscosity. If a frac-out occurs, the boring operation would be stopped immediately, and a frac-out contingency plan would be implemented to contain and remove the drilling mud.

***Mesa Substation Construction***

Prior to construction, the existing Mesa Substation site will be cleared and graded to prepare the site for construction. Approximately 83.3 acres of the site will be graded. Approximately 20 acres of on-site vegetation will be removed during the clearing, grubbing, and grading for the construction of the proposed Mesa Substation, including trees along

the frontage and within the fence line of the existing Mesa Substation site. Mowers, excavators, front-end loaders, and/or D-9 bulldozers will be utilized to conduct the clearing and vegetation removal activities.

Construction of the proposed Mesa Substation will occur in phases, as shown in Figure 3: Grading Phase Areas in Attachment B: Figures. Phase 1 involves preliminary activities, such as relocation of the Metropolitan Water District of Southern California water pipeline, vegetation removal, removal of some equipment stored on site, and installation of temporary fencing. This phase includes all construction associated with the following:

- the first eight 220 kV switchrack positions,
- the entire 66 kV and 16 kV switchracks,
- two 220/66 kV transformer banks,
- two 66/16 kV transformer banks,
- two 66 kV capacitor banks,
- two 16 kV capacitor banks, and
- the necessary underground and overhead facilities to connect the relocated circuits (of all three voltage levels).

This phase also includes, but is not limited to, activities such as mass grading; access road construction, including retaining walls; construction of the senior and junior MEERs; assembly and erection of various transmission and subtransmission overhead structures; and possibly the construction of the Operations Building and the Test and Maintenance Building. This phase involves the import of approximately 100,000 CY of fill to develop the western portion of the proposed Mesa Substation site. Phase 1 will generally occur between the second quarter of 2016 and the fourth quarter of 2018.

Phase 2 involves the extension of the new 220 kV switchrack, one 220/66 kV transformer bank, one 66 kV capacitor bank, and the necessary underground and overhead facilities to connect the relocated circuits (of both voltage levels). This will include, but is not limited to, activities such as decommissioning and removal of the western portion of the existing 220 kV switchrack; grading and civil improvements, including the detention basin and other drainage improvements; construction of the southern portion of the new 220 kV switchrack; and assembly and erection of various transmission and subtransmission overhead structures. This phase will generally occur between the second quarter of 2018 and the first quarter of 2019.

Phase 3 includes decommissioning and demolition of the balance of the existing substation, construction of the new 500 kV switchrack on the eastern portion of the site, and connecting the transmission lines. This phase will include, but is not limited to, activities such as structural and civil demolition and access road construction, including retaining walls; installation of foundations and piping for three 500/220 kV transformer banks, including Spill Prevention Control and Countermeasure Plan facilities; and assembly and erection of various transmission overhead switchracks and transmission towers. This phase will generally take place between the first quarter of 2019 and the fourth quarter of 2020. However, post-construction testing after the substation is operational will occur through the second quarter of 2021.

Site grading will be accomplished primarily with bulldozers and backhoes, which will condition, cut and fill, and blend the native soil and imported material to the desired pad elevations. A summary of the anticipated grading quantities for Mesa Substation is provided in Table 1: Grading Quantities Summary. Phase 1 construction of Mesa Substation will require approximately 100,000 CY—or approximately 10,000 haul truckloads—of imported fill to develop the substation site. Phase 3 will require approximately 50,000 CY—or approximately 5,000 haul truckloads—of import material to be hauled to the substation site. Haul trucks will operate periodically and as needed during the grading phase of construction. In general, no more than 100 haul truck trips per day will be required for the import/export activities.

***Vegetation Clearance***

The proposed Mesa Substation site will require vegetation clearing (i.e., tree and brush removal) within its boundaries to prepare the approximately 69.4-acre site for the installation of the substation equipment.

Vegetation clearing (i.e., tree and brush removal and tree trimming) may also be required in the proposed transmission ROWs to accommodate construction work areas, and to reduce the potential for fire during construction activities.

**Table 1: Grading Quantities Summary**

| Phase | Approximate Fill Quantity (CY) | Approximate Cut Quantity (CY) | Approximate Import/Export Quantity (CY) | Source/ Destination |
|---|---|---|---|---|
| 1 | 250,000 | 150,000 | 100,000 | Quarry within 45 miles of the site |
| 2 | 5,000 | 70,000 | (65,000) | Stockpile for Phase 3 |
| 3 | 325,000 | 375,000 | (50,000) | Landfill within 45 miles of the site |
| **Total** | **580,000** | **595,000** | -- | -- |

Notes: Export values in Phase 2 are included in the cut values in Phase 3. The Phase 3 raw cut volume is 310,000 CY. "--" indicates "not applicable."

***Cleanup and Post-Construction Restoration***

SCE will clean up all areas that will be temporarily disturbed by construction of the Project (which may include the material staging yards, stringing sites, and splicing sites) to as close to pre-construction conditions as feasible, or to the conditions agreed upon between the landowner and SCE following the completion of construction of the Project.

If restoration and/or revegetation occurs within sensitive habitats, a Revegetation Plan will be developed by SCE with the appropriate resource agencies and implemented after construction is complete.

***Construction Workforce and Equipment***

Construction will be performed by either SCE construction crews, contractors, or a combination of both. If SCE construction crews are used, they typically will be based at SCE's local facilities (e.g., service centers and substations) or a temporary material staging yard set up for the Project. Contractor construction personnel will be managed by SCE construction management personnel and based out of the Contractor's existing yard (if they have one in the area) or a temporary material staging yard set up for the Project. SCE anticipates a total of 84 to 242 construction personnel will be working on any given day. SCE anticipates that crews will work concurrently whenever possible; however, the estimated deployment and number of crew members will vary depending on factors such as material availability, resource availability, and construction scheduling.

In general, construction efforts will occur in accordance with accepted construction industry standards. If feasible, SCE will comply with local ordinances for construction activities.

***Avoidance and Minimization Measures***

Prior to construction, SCE will conduct a risk assessment to address the potential for erosion and sedimentation. In addition, SCE will prepare a SWPPP in accordance with the National Pollutant Discharge Elimination System Permit for

Discharges of Storm Water Associated with Construction Activity (Construction General Permit). The risk assessment will take into consideration the receiving waters, soil type, slopes, construction duration, and rainfall to determine the potential erosion and estimate the volume of sediment that could leave disturbed areas during the Project. From the risk assessment, Project- and site specific best management practices (BMPs) will be identified in the SWPPP that will ensure water quality standards are met. BMPs to be implemented will include erosion control and stabilization, sediment controls, good housekeeping, waste management and hazardous materials controls, and guidelines for working around waterbodies.

Indirect impacts to other wetlands and waters could also result from spillage of construction materials, as well as from erosion and sedimentation. These potential impacts will be avoided and minimized through implementation of the Project's SWPPP, which is required by law. The Project SWPPP will require that vehicles be checked daily and maintained in accordance with the manufacturer's specifications to minimize the potential for leaks, and refueling and maintenance of vehicles will occur at least 50 feet from the edge of any aquatic feature. With implementation of applicant-proposed measures (APMs) and with adherence to applicable regulations, impacts to waterbodies and water quality will be minimized. A discussion of APMs that will be implemented to avoid and/or minimize impacts to waters of the U.S. is provided in response to Question 9 – Other Actions/Best Management Practices.

***Project Alternatives***

The existing Mesa Substation is situated at the junction of four transmission ROW corridors owned by SCE. The Project site is proposed on the existing Mesa Substation site for the following reasons:

- The existing approximately 86.2-acre substation site is located at the intersection of the 500/220/66 kV ROW corridors; therefore, no new ROW corridors will be needed
- No additional property acquisitions are required to build the new substation because the proposed substation can be built on the existing SCE fee-owned, approximately 86.2-acre site, with the exception of two vacant remnant parcels adjacent to the existing substation site that total approximately 1.2 acres, which are required for relocation of the Metropolitan Water District waterline and the installation and drainage
- The proposed site is optimally located within the Electric Needs Area (ENA)[1]
- Construction of the substation at this location is the option that will most likely meet the need date of December 31, 2020 and is also approved by the CAISO

The existing Mesa Substation site is located immediately adjacent to the existing 220/66/16 kV lines; therefore, looping the 500 kV line into the proposed Mesa Substation will require construction of the least amount of linear feet of line within existing SCE ROW and will not require property acquisition. In contrast, if the Project were to be constructed at another location, a new site large enough for the proposed substation would need to be procured, and looping in a 500 kV transmission line would require potentially longer lines if the new location were not immediately adjacent to an existing 500 kV transmission line. Additionally, consideration of the need for additional 220/66/16 kV lines would have to be provided at a new substation site other than at Mesa Substation. Any alternative site would necessitate substantial acquisition of new and/or expanded ROWs and a substation site large enough to accommodate the Project, and would consequently produce increased environmental impacts compared to the current location.

[1] The ENA is defined as the Western Los Angeles Basin. The California Independent System Operator (CAISO) defines the Western Los Angeles Basin area as follows: Northwest Los Angeles Basin sub-area (El Segundo, Chevmain, El Nido, La Cienega, La Fresa, Redondo, Hinson, Arcogen, Harborgen, Long Beach, Lighthipe, and Laguna Bell substation), Western Central Los Angeles Basin sub-area (Center, Del Amo, Mesa, Rio Hondo, Walnut, Olinda substation), and Southwest Los Angeles Basin sub-area (Alamitos, Barre, Lewis, Villa Park, Ellis, Huntington Beach, Johanna, Santiago, and Viejo substations).

Further, because SCE owns the property on which the expanded Mesa Substation will be constructed, and because all transmission components will take place on existing fee-owned ROWs and franchise areas, construction of the Project on the existing SCE fee-owned property is more feasible from an economic perspective than would construction of the Project at an alternative location. For example, acquisition of a new location large enough to house the proposed Mesa Substation and the ROWs would require a substantial capital outlay and a potential condemnation action. In contrast, because SCE already owns the location on which the current Project will be constructed, the Project is considered to be more feasible at the current location.

As such, no alternative substation locations were considered because no alternative locations could reasonably be expected to allow for the proposed Mesa Substation as feasibly as the proposed location, which does not require condemnation or substantial property acquisition, meets the Project objectives and timelines, and minimizes environmental impacts.

**Please note that the Regional Board will not allow stormwater treatment facilities to be placed within waters of the United States**

c) Proposed Schedule (Start-up, duration, and completion dates):

Construction of the Project is anticipated to begin in July 2016, and will end in December 2020 with energization of the substation. Construction will commence following California Public Utilities Commission (CPUC) approval, final engineering, procurement activities, land rights acquisition, and receipt of all applicable permits.

**3. FEDERAL LICENSES/PERMITS**

a) Federal Agency(ies)/File Number(s): U.S. Army Corps of Engineers Representative Shannon Pankratz

U.S. Army Corps of Engineers X Other N/A

File No.(s) SPL-2014-00375-SLP

b) Permit Type(s) (please provide permit number(s):

Nationwide Permit No.(s)12 Regional General Permit No.(s) N/A

Individual Permit____ Other Section 408 Permit

c) Does the project require any Federal Application(s), Notification(s) or Correspondence?

Yes X (attach copy(ies)) No _____ (Attach detailed explanation)

A portion of the Project crosses land owned by the United States (U.S.) Army Corp of Engineers (USACE). SCE will submit an application for a Section 408 Permit to the USACE.

**4. OTHER LICENSES/PERMITS/AGREEMENTS**

a) Please list all other required regulatory approvals (submit final or draft copy if available):

| Agency | Agency Representative | License/Permit/Agreement | Approval Date |
|---|---|---|---|
| USACE | Shannon Pankratz | Section 404 Clean Water Act | Application was submitted June 30, 2015 |
| USACE | Nirav Patel | Section 408 Permit | Application was submitted August 28, 2015 |

| | | | |
|---|---|---|---|
| U.S. Fish and Wildlife Service | TBD | Section 7 Consultation | Application was submitted June 30, 2015 |
| CPUC | Lisa Orsaba | Permit to Construct | Application was submitted March 13, 2015 |
| California Department of Fish and Wildlife (CDFW) | TBD | Section 1602 Lake or Streambed Alteration Agreement | Application will be submitted in January 2016 |

Table 2: Other Agency Certifications or Approvals in Attachment A: Supplemental Information provides additional certifications or approvals needed for the Project.

b) Does the project require a Federal Energy Regulatory Commission (FERC) license or amendment to a FERC license?

No X Yes__ (Attach application copy)

## 5. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Indicate CEQA Document (submit final or draft copy*) and Lead Agency:

Categorical Exemption__ Negative Declaration___ Environmental Impact Report X

Has the document been certified/approved, or has a Notice of Exemption been filed? No

If yes, date of approval/filing_____ If no, expected approval/filing date: April 2016

Lead Agency CPUC

*Note, ample time must be provided to the certifying agency to properly review a final copy of valid CEQA documentation before certification can occur.

## 6. PROJECT SITE DESCRIPTION (INCLUDES AREAS OUTSIDE OF U.S. WATERS)

a) Project Location (Attach map of suitable quality and detail):

City or Area Monterey Park, Montebello, Rosemead, South El Monte, Commerce, Bell Gardens, and Pasadena, as well as in unincorporated Los Angeles County

County Los Angeles

Box 6A in Attachment A: Supplemental information provides additional information regarding the Project location.

b) Longitude/Latitude

*[Information regarding submittal of longitude and latitude coordinates can be found at : http://www.swrcb.ca.gov/~rwqcb4/html/meetings/401wqc.html]*

*[**A minimum of eight (8) coordinates** – All project areas or zones must be delineated with enough waypoints to accurately depict polygons or polylines with at least two (2) points per line segment.]*

**Table 2: Longitude/Latitude Coordinates**

| Project Component | Decimal Degrees |
|---|---|
| Mesa Substation | 34.039419, -118.108403<br>34.037188, -118.107130<br>34.033792, -118.111389<br>34.033724, -118.117885<br>34.034112, -118.117988<br>34.036158, -118.115298 |
| Transmission ROW | 34.030318; -118.121659 |
| Transmission ROW | 34.043659; -118.105713 |
| Transmission ROW | 34.038248; -118.100823 |
| Transmission ROW | 34.040241; -118.109359 |
| Telecommunications | 34.022856; -118.114561 |
| Telecommunications | 34.029423; -118.110469 |
| Telecommunications | 34.043176; -118.08734 |
| Telecommunications | 34.026841; -118.075883 |

1S Township/Range 12/S

c) Total Project Size:

202. 12 Acres* _____ linear feet (if appropriate)

The Project size represents the potential disturbance area associated with work at Mesa Substation and the associated transmission, subtransmission, distribution, and telecommunications lines in adjacent rights-of-way. The proposed Mesa Substation would be constructed within approximately 69.4 acres of primarily SCE fee-owned and/or properties to be acquired. The proposed transmission, subtransmission, distribution, and telecommunications line work would be constructed within approximately 1.8 miles of SCE fee-owned and/or properties to be acquired and within approximately 8 miles of franchise locations.

d) Area Type/Description (check as appropriate):

Urban X Residential_____ Recreation_____
Agriculture_____ Open Space_____ Wildlife Corridor_____
Migratory Pathway_____ Spawning Habitat_____
Threatened/Endangered Species Habitat X Other_____

*This information is required.

## 7. IMPACTED WATER BODIES

a) Name(s) of Receiving Water Body(ies)*:

Rio Hondo and 7 unnamed tributaries to the Los Angeles River

b) Indicate in ACRES and LINEAR FEET (where appropriate) the proposed **waters of the United States** to be impacted by any discharge other than dredging, and identify the impacts(s) as permanent and/or temporary for each water body type listed below:

| | | |
|---|---|---|
| Jurisdictional Wetland: | N/A permanent,<br>N/A permanent, | N/A temporary ACRES<br>N/A temporary LINEAR FEET |
| Streambed (vegetated): | 0.37 permanent,<br>6,294.49 permanent, | 0.09 temporary ACRES<br>1,352.52 temporary LINEAR FEET |
| Streambed (unvegetated): | N/A permanent,<br>N/A permanent, | N/A temporary ACRES<br>N/A temporary LINEAR FEET |
| Lake/Reservoir: | N/A permanent,<br>N/A permanent, | N/A temporary ACRES<br>N/A temporary LINEAR FEET |
| Ocean/Estuary/Bay: | N/A permanent,<br>N/A permanent, | N/A temporary ACRES<br>N/A temporary LINEAR FEET |
| Isolated waters: | N/A permanent,<br>N/A permanent, | N/A temporary ACRES<br>N/A temporary LINEAR FEET |

Please explain exactly how waters will be impacted by proposed project activities.
*(*Attach additional sheets as necessary*)*

Construction of the Project will result in direct temporary impacts of approximately 0.09 acre, and direct permanent impacts of approximately 0.37 acre to waters of the U.S. Table 3: Impacted Water Bodies summarizes the Project's permanent and temporary impacts to waters of the U.S. Attachment A: Supplemental Information provides additional details regarding Project impacts.

**Table 3: Impacted Water Bodies**

| Feature Number | Approximate Impact to RWQCB-Jurisdictional Feature (acres/linear feet) | |
|---|---|---|
| | Permanent | Temporary |
| 7-39-S-5 | -- | 0.04/<br>715.81 |
| 11-94-S-5 | 0.11/<br>1,987.41 | -- |
| 7-38-S-1<br>7-39-S-1<br>11-138-S-100 | 0.01/<br>363.85 | -- |
| | 0.08/<br>2,179.78 | -- |
| | 0.07/<br>458.41 | -- |
| 7-39-S-6 | 0.03/<br>441.81 | -- |
| 7-39-S-2 | 0.03/<br>423.04 | -- |
| 7-39-S-3 | 0.04/<br>440.19 | -- |

| | | |
|---|---|---|
| 11-136-S-100 | -- | 0.03/<br>376.54 |
| 11-136-S-101 | -- | 0.02/<br>260.17 |
| 7-39-S-11<br>(Rio Hondo) | -- | -- |
| **TOTAL** | **0.37/<br>6,294.49** | **0.09/<br>1,352.52** |

c) Indicate in CUBIC YARDS the volume of Dredged material to be discharged in waters of the United States:

The Project will discharge approximately 122.49 cubic yards of native and imported soil into waters of the U.S. Table 4: RWQCB-Jurisdictional Resources and Impacts within the Project Site in Attachment A: Supplemental Information summarizes the volume of dredged material by water feature.

d) Indicate type(s) of material proposed to be discharged in waters of the United States:

The material proposed to be discharged into waters of the U.S. consists of native and imported soil. Additional information is provided in Attachment A: Supplemental Information.

*All receiving water bodies must be identified in the *Water Quality Control Plan, Los Angeles Region* (Basin Plan). Any unnamed/unidentified waters must be extended to an identifiable tributary.

## 8. COMPENSATORY MITIGATION

a) Indicate in ACRES and LINEAR FEET (where appropriate) the total quantity of **waters of the United States** proposed to be Created, Restored and/or Enhanced for purposes of providing Compensatory Mitigation:

| Water Body Type | Created | Restored | Enhanced |
|---|---|---|---|
| Jurisdictional Wetland | | | |
| Streambed (vegetated) | TBD | TBD | TBD |
| Streambed (unvegetated) | | | |
| Lake/Reservoir | | | |
| Ocean/Estuary/Bay | | | |

Please describe mitigation activities proposed (Attach additional sheets as necessary).

SCE is pursuing compensatory mitigation credits for the Mountain Resource Trust In-Lieu Fee Program for impacts to jurisdictional Streambed and associated riparian habitat. SCE will develop a Compensatory Mitigation Plan to mitigate for permanent impacts resulting from construction of the Project.

Permanent impacts to all jurisdictional water resources will be compensated at a 1-to-1 ratio, or as determined by the USACE and other permitting agencies.

b) If contributing to a Mitigation or Conservation Bank, indicate the agency, dollar amount, acreage, and water body type (omit if not applicable):

Conservation Agency Mountain Resource Trust In-Lieu Fee Program

$ TBD for TBD acres of Streambed (water body type)

How many acres of this qualify as waters of the United States? TBD

c) Other Mitigation (omit if not applicable):

N/A

How many acres of this qualify as waters of the United States? N/A

e) Location of Compensatory Mitigation Site(s) (Attach map of suitable quality and detail):

City or Area TBD County TBD

Longitude/Latitude (Decimal-Degrees) TBD
[A minimum of eight (8) coordinates]

**9. OTHER ACTIONS/BEST MANAGEMENT PRACTICES (BMPs)**

Briefly describe other actions/BMPs to be implemented to Avoid and/or Minimize impacts to waters of the United States, including SUSMPs/Low Impact Development (LID), habitat preservation, erosion control measures, project scheduling, flow diversions, etc.

As described previously in response to Question 2C in Attachment A: Supplemental Information, SCE will conduct a risk assessment to address the potential for erosion and sedimentation. In addition, SCE will prepare a Storm Water Pollution Prevention Plan (SWPPP) for the Project that will include best management practices (BMPs) that will ensure water quality standards are met. BMPs to be implemented will include erosion control and stabilization, sediment controls, good housekeeping, waste management and hazardous materials controls, and guidelines for working around waterbodies. The following specific BMPs will be implemented:

- Waste Management Control (WM)-1 and 2: Material Delivery and Storage and Material Use. The Project will utilize the laydown yard area, located just outside of the southwest corner of the existing Mesa Substation site, for material storage and usage locations. All material for this Project will be delivered from off-site locations directly to the laydown yard area where it will be utilized to properly store construction materials and wastes with proper containment. Locations within the laydown yard area will be shown on the SWPPP site map and updated by the Qualified SWPPP Practitioner (QSP) as construction progresses.

  In general, this BMP will be implemented to help prevent discharges of construction materials during use. SCE will utilize stabilized areas, as necessary, to prevent potential spills and unnecessary tracking of sediment. Spill clean-up materials, material safety data sheets, material inventory, and emergency contact numbers will be maintained and stored at the substation by SCE.

- WM-3: Stockpile Management. This Project will utilize the laydown yard area as the primary location for stockpiles. The QSP, or designated personnel, shall update the Site Maps in Appendix B of the SWPPP to show stockpile locations, and ensure the following.

  - Stockpiles shall be located a minimum of 50 feet away from any natural drainage courses and shall be for temporary use only.

- Stockpiles require proper wind erosion control. See WE-1-Wind Erosion Control for specifics of this BMP.
- Stockpiles shall be effectively covered prior to the onset of precipitation and when inactive, or planned to be inactive.

- WM-4 – Spill Prevention and Control. SCE shall implement this BMP when chemical and/or hazardous substances are used or stored onsite, to control, clean up, and prevent spills and discharges to storm drain systems. SCE will ensure that spill response personnel are assigned and trained. Spills of oil, petroleum products, and substances listed under Title 40 of the Code of Federal Regulations (parts 110, 117.3, and 302.4), those defined by California regulation or statute, and sanitary and septic wastes shall be contained and cleaned up immediately.

- SCE shall maintain equipment and spill clean-up materials on-site. Available equipment and spill clean-up materials include, but not limited to shovels, brooms, spill absorbent, rags, and proper waste containment (i.e. non-permeable, water proof spill containment bin). Waste materials shall be labeled and disposed of properly in accordance with local, state, and federal requirements. SCE shall maintain Project-specific material safety data sheets, material inventory, and emergency contact numbers on-site.

- WM-5: Solid Waste Management. SCE shall implement this BMP whenever wastes are generated, stockpiled, or removed from the Project. Implementation of this BMP will minimize or eliminate the discharge of pollutants to the storm drain systems or watercourses.

  This BMP will be implemented to minimize storm water contact with waste materials and prevent waste discharges. Waste containers shall be equipped with functional lids and covered at the end of every business day and during rain events. Solid waste, including rubble stockpiles, will be removed and disposed of at appropriate offsite facilities weekly.

- WM-6: Hazardous Waste Management. SCE shall implement this BMP to prevent or reduce the discharge of hazardous materials to storm water or watercourses. SCE shall place hazardous materials in a non-permeable, waterproof spill containment bin and provide training of employees and subcontractors.

- WM-8: Concrete Waste Management. SCE will utilize dedicated liquid-tight cement washout stations that will be continuously monitored by the QSP. All dedicated above ground cement washouts will be located in the laydown yard area and shall be replaced prior to or when their capacity reaches 75 percent. Washouts will be constructed and maintained in sufficient quantity and size to contain all liquid and concrete waste generated by washout operations and placed a minimum of 50 feet from water courses. Concrete washouts will utilize a 10 milliliter plastic liner to prevent discharge to the underlying ground or surrounding areas, in accordance with the California Stormwater Quality Association (CASQA) BMP Fact Sheet guidelines. A sign shall be installed adjacent to each washout facility to inform concrete equipment operators to utilize the proper facility.

- WM-9: Sanitary/Septic Waste Management. SCE shall minimize or eliminate the discharge of construction sanitary/septic wastes. This BMP is applicable to temporary and portable sanitary/septic systems in the construction site area. Portable toilets will be located on the laydown yard area and shall have containment trays to prevent spillage of waste during use or servicing activities. However, should the location change, or if additional portable toilets are necessary, the QSP shall update the Site Maps. Weekly maintenance shall be provided and wastes will be properly disposed of at appropriate offsite facilities. The toilets will be located a minimum of 50 feet away from concentrated flow paths and traffic flow.

- Non-Stormwater Management Control (NS)-9: Vehicle and Equipment Fueling. All vehicle and equipment fueling shall be performed off-site, with this BMP being utilized to manage mobile fueling activities which may

occur at the laydown yard, if needed. Fuel trucks, each equipped with absorbent spill clean-up materials, will be used for any mobile on the Project. All mobile fueling operations will be conducted at least 50 feet away from drainage courses and on a level graded area. Drip pans will be used for all mobile fueling.

- NS-10: Vehicle and Equipment Maintenance, and Storage. Several types of vehicles and equipment will be used throughout the Project. This BMP will be utilized to prevent discharges of vehicle fluids during maintenance activities.

  Construction vehicles and equipment will be serviced, if needed, and stored at the laydown yard. However, if locations change, the QSP shall update the Site Map to reflect current locations. All vehicle storage and maintenance will be conducted at least 50 feet away from any inlets and drainage facilities and on a level graded area. SCE will place drip pans, plastic sheeting, or absorbent material under vehicles and equipment while parked overnight, In storage, and when requiring maintenance activities that involve grease, oil, solvents, or other vehicle fluids.

- Erosion Control (EC)-1: Scheduling. SCE shall reduce the discharge of pollutants to storm drain facilities or water courses caused by landscaping activities by scheduling said activities in a manner that will limit exposure of disturbed soil to wind, rain, and storm water run-on and runoff. The Project schedule will sequence construction activities with the installation or use of landscaping materials.

- EC-2: Preservation of Existing Vegetation. The construction work area will be mass graded. However, SCE shall protect and preserve any existing vegetation that may be established within the construction work areas as the three phases of construction are implemented. The protection and preservation of such vegetation will serve to control erosion and filter out sediment.

- EC-10: Velocity Dissipation Devices. SCE shall implement this BMP after the installation of the onsite storm drain system. At a minimum, and as directed by the QSP or designated personnel, a velocity dissipation device shall be installed within the proposed detention basin on the westerly side of the expanded substation.

- WE-1: Wind Erosion Control. SCE will implement this BMP, along with NS-1: Water Conservation Practices, to provide dust control and prevent discharges from dust control activities and water supply equipment. Water will be applied to disturbed soil areas of the Project to control dust and maintain optimum moisture levels for compaction. The water will be applied using water trucks. Water equipment leaks will be repaired immediately. Water application rates will be minimized, as necessary, to prevent runoff and ponding. Note: Water utilized for dust control shall be dechlorinated.

- SE-1: Silt Fence. The QSP, or designated personnel, may implement this BMP in lieu of, or in addition to SE-5 and SE-6, as a linear barrier BMP at the Project perimeter or laydown yard perimeter. Linear barriers are placed to prevent sheet flow from running uninterrupted into the laydown yard and active construction areas. If utilized, silt fence shall be placed with a setback of at least three feet from the toe of slope. Sediment shall be removed when it reaches approximately one-third of the barrier height. Barriers shall be removed from the site when no longer required, per the “Final Stabilization Phase” Site Map. The QSP, or designated personnel, shall update Site Maps to show usage locations.

- SE-4: Check Dams. Gravel bag check dams may be placed per the check dam spacing chart, as shown on Site Maps in Appendix B of the SWPPP, along the access road located at the eastern side of the substation to prevent potential sediment discharge from running uninterrupted. Check dams should be utilized if precipitation is forecasted and construction of the access road has not yet been completed. Upon completion of access road construction, and compaction testing shows 90 percent or greater compaction rates, check dams may be removed and are no longer required prior to forecasted rain events unless otherwise directed by the QSP, or designated

personnel. SCE shall place check dams to intercept flows, reduce flow velocity, and provide removal of sediment from runoff flows.

- SE-5: Fiber Rolls. To prevent sediments from entering the basin, SCE will place fiber rolls along the perimeter of the detention basin to prevent. Fiber rolls may be placed around disturbed soil area perimeters, the perimeter of the detention basin, trenching, down-slope of exposed soil areas, and around temporary stockpiles. SCE shall place fiber rolls in locations to intercept runoff, reduce its flow velocity, release the runoff as sheet flow, and provide removal of sediment from runoff, as shown on the Site Maps in Appendix B of the SWPPP. Pro-Wattle™ may be used in lieu of standard fiber roll material. The QSP, or designated personnel, shall update the Site Maps to show locations. Fiber roll barriers shall be secured (staked) to the ground in a trench depth of one-fourth to one-third of the thickness of the roll, and a width of the diameter of the roll. The area behind the wattles will collect and hold runoff in order to allow suspended sediment to settle out. SCE will remove this sediment periodically, and especially after heavy rains. Any linear barrier which becomes clogged with sediment will be replaced as necessary to ensure the free flow of water.

- SE-6: Gravel Bag Berm. Gravel bag berms will be placed along the Project area perimeter, or trenching upstream and downstream locations to prevent sheet flow from running uninterrupted. SCE shall place gravel bags to intercept runoff, reduce its flow velocity, release the runoff as sheet flow, and provide removal of sediment from runoff, as shown on the Site Maps in Appendix B of the SWPPP. The QSP, or designated personnel, shall update the Site Maps to show locations.

  The area behind the gravel bags will collect and hold runoff in order to allow suspended sediment to settle out. SCE will remove this sediment periodically, and especially after heavy rains. Berms, which become clogged with sediment, will be replaced as necessary to ensure the free flow of water.

- SE-7: Sediment Sweeping and Vacuuming. SCE will implement sweeping and vacuuming, as necessary at the Project's three construction ingress/egress access points to control sediment that is tracked from the construction areas onto public roads. This will limit the amount of sediment that may be transported to storm drains or watercourses.

- SE-8: Sandbag Barrier. Existing 2-to-1 slopes are adjacent to the existing substation along the easterly boundary. During construction activities, if run-on is observed to be entering the construction area, SCE will implement this BMP to redirect flows around the substation area and along the natural path of flow. Additionally, if construction sediment laden run-off is observed to be entering the detention basin area, SCE shall immediately implement this BMP to redirect flows around the proposed basin. The QSP, or designated personnel, shall update the Site Maps to show implementation locations.

- SE-10: Storm Drain Inlet Protection. Existing inlets shown on Potrero Grande Drive will be protected, as necessary, from sediment using SE-5 or SE-6. Protection is only anticipated to be required during the grading and land development phase of construction Phase 1. If the QSP determines that the inlet shall be protected during other phases of construction, the Site Maps shall be updated to reflect this BMP installation.

  Storm drain inlet protection measures temporarily pond run-off before it enters the storm drain. SCE will remove this sediment periodically, and especially after heavy rains. Gravel bags, which become clogged with sediment, will be replaced as necessary to ensure the water will eventually pass through the gravel bag. Leave room upstream from barrier for water to pond and sediment to settle.

  Existing inlets shall be covered and protected from grinding, sandblasting, and demolition operations. Any air-borne debris from these operations can settle into surrounding inlets. Therefore, these inlets shall be protected with gravel bags or with a plastic medium.

- TC-1: Stabilized Construction Entrance/Exit. Stabilized construction entrances/exits shall be constructed and maintained per CASQA's factsheet TC-1 (Appendix E), and as modified in the field by the QSP as construction conditions change. Stabilized entrance/exits are proposed at the end of the proposed pavement driveway, at the existing substation's entrance, along Markland Drive, along Greenwood Avenue, and along Potrero Grande Drive. If additional locations are required, the QSP, or designated personnel, shall update the Site Maps in Appendix B to show respective locations.

  Construction entrances/exits will be stabilized to reduce tracking of sediment as a result of construction traffic. The designated entrances/exits will be graded to prevent runoff from leaving the construction areas. Stabilization material will be 3- to 6-inch aggregate, minimum. The entrances will be flared where it meets the existing road to provide an adequate turning radius. SCE shall limit speed of vehicles to control dust.

No impacts to the Rio Hondo will occur as a result of the Project. SCE will mitigate for permanent impacts to all USACE-jurisdictional water resources at a 1-to-1 ratio, or as required, in accordance with the following proposed mitigation measures (MM) from the Biological Assessment and applicant-proposed measures (APMs) from the Final Proponent's Environmental Assessment prepared for the Project. SCE will implement the following measures to minimize impacts to jurisdictional resources:

- MM-01: Revegetation Plan. To the extent feasible, SCE will minimize impacts and permanent loss to riparian habitat, native trees, and other vegetation that is regulated by federal, State, or local agencies, and/or that provides suitable habitat for special-status species. Impacts will be minimized at construction sites by flagging native vegetation to be avoided. If unable to avoid impacts to protected vegetation, a Habitat Compensation and Revegetation Plan (HCRP) will be prepared in coordination with the appropriate agencies for areas of native habitat temporarily and/or permanently impacted during construction. The HCRP will describe, at a minimum, which vegetation restoration method (e.g., natural revegetation, planting, or reseeding with native seed stock in compliance with the Project's SWPPP) will be implemented in the Project area. The HCRP will also include the species or habitats that could be impacted, the replacement or restoration ratios (as appropriate), the restoration methods and techniques, and the monitoring periods and success criteria, as identified in each measure.

- APM-BIO-08: Compensation for Permanent Impacts. Permanent impacts to all jurisdictional water resources will be compensated at a 1-to-1 ratio, or as required by the USACE, CDFW, and Regional Water Quality Control Board.

## 10. PAST/FUTURE PROPOSALS BY THE APPLICANT

Briefly list/describe any projects carried out in the last 5 years or planned for implementation in the next 5 years that are in any way related to the proposed activity or may impact the same receiving body of water. Include estimated adverse impacts.

Table 5: Past and Future Projects in Attachment A: Supplemental Information provides a detailed list of projects carried out by SCE.

S. Cole

Applicant's Signature
(Agent may not sign for Applicant)

1/25/2016

Date

**Should you have any questions regarding the water quality certification process, please contact Ms. Valerie Carrillo (213) 576-6759 or Mr. Dana Cole (213) 576-5733.**