



**Linda S. Adams**  
Acting Secretary for  
Environmental Protection

# State Water Resources Control Board

## Executive Office

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**Edmund G. Brown Jr.**  
Governor

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NOTICE OF APPLICABILITY OF WATER QUALITY ORDER 2004-0004-DWQ  
GENERAL WASTE DISCHARGE REQUIREMENTS FOR SOUTHERN CALIFORNIA  
EDISON TEHACHAPI RENEWABLE TRANSMISSION PROJECT: SEGMENT 9 -  
WHIRLWIND SUBSTATION, KERN COUNTY, FILE NO. SB10001IN

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**PROJECT:** Southern California Edison (SCE) – Tehachapi Renewable  
Transmission Project (TRTP): Segment 9 – Whirlwind Substation

**APPLICANT:** Hazem Gabr  
Southern California Edison  
2131 Walnut Grove Avenue  
GO3, Third Floor  
Rosemead, CA 91770

This Notice of Applicability responds to your request on behalf of SCE to seek coverage under the State Water Resources Control Board (State Water Board) Water Quality Order No. 2004-0004-DWQ (General Order) for the subject project.

### **AUTHORIZATION:**

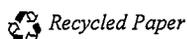
To comply with State law, the SCE TRTP: Segment 9 – Whirlwind Substation project (Project) as described in the Notice of Intent (NOI) and supplemental Project information submitted to the State Water Board by SCE may proceed in accordance with the conditions in the General Order (attached). The General Order is also posted on the State Water Board's website at:  
[http://www.waterboards.ca.gov/board/decisions/adopted\\_orders/water\\_quality/wqo04.shtml](http://www.waterboards.ca.gov/board/decisions/adopted_orders/water_quality/wqo04.shtml)

You should familiarize yourself with the contents of this General Order. The Project must proceed in accordance with the requirements contained in this Notice of Applicability (NOA) and the General Order. Coverage under this General Order is no longer valid if the Project, as described, is modified.

### **PROJECT DESCRIPTION:**

This Project involves the modification of existing substations as well as the construction of the new Whirlwind Substation. The Whirlwind Substation will include both 500

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kilovolt (kV) and 220 kV switchyards to accommodate connecting two different types of electrical transmission lines in the area. The 500 kV switchyard will be the terminal point for 500 kV transmission lines from/to the Antelope, Midway, Vincent, and Windhub Substations. The 220 kV switchyard will be the terminal point for future transmission lines and will also include the installation of two 220 kV, 79.2 Megavolt-Amps Reactive capacitor banks.

The Project will include an internal network of paved access driveways; a detention/water quality basin; a spill prevention, containment, and countermeasure (SPCC) basin; three switchyards; and a mechanical control building equipped with air conditioning which will house the following equipment: battery charger, batteries, light and power panel, alternating current distribution panel, direct current distribution panel, circuit breaker control switch, all required remote controls (automation equipment), all required protective relay equipment, and information technology/telecommunication equipment.

A small unnamed ephemeral desert wash enters the Project footprint of the proposed Whirlwind Substation from the north and dissipates to sheet flow in the middle of the Project footprint. Construction of the proposed substation will permanently fill 0.03 acre (390 linear feet) of the unnamed ephemeral desert wash (see Figure 4 in Enclosure). The desert wash will be filled with approximately 40 cubic yards of native soil from the site. To allow stream flow and sediment to continue flowing from the remaining portion of the ephemeral desert wash, uninterrupted, from north to south, a trapezoidal riprap channel will be constructed around the boundary of the substation pad which will intercept flow from the remaining desert wash. The trapezoidal channel will be placed around the entire upstream boundary of the substation pad, with dissipating riprap outlets on the western boundary and on the southeastern corner. The dimensions of the trapezoidal channel are as follows: width varies from 17 to 62 feet, depth is 2 to 3 feet, and the slope is 2:1. A berm will be constructed along the channel on the western side of the Project site to help carry a large portion of storm water further south so that deposition and scour resulting from a storm event does not occur beyond the boundaries of the Project site.

#### **PROJECT LOCATION:**

The Whirlwind Substation is located near the intersection of 170th Street and West Rosamond Boulevard in southern Kern County, approximately 15 miles west of State Route 14 and the unincorporated community of Rosamond, in Section 23, Township 9 North, and Range 15 West (Fairmont Butte, California 1996 quadrangle), Kern County (see Figure 1 in Enclosure). The Project would affect an unnamed desert wash, tributary to Rosamond Lake.

**PROJECT SCHEDULE:**

Construction of the Whirlwind Substation is planned to start March 2011, with grading and fencing activities lasting approximately three months. Filling of the existing desert wash and rerouting of the flows into a new trapezoidal channel is expected to be completed by April 2011. Final construction of the Whirlwind Substation is expected to be completed by the end of 2013.

**PROJECT IMPACTS MITIGATION AND MINIMIZATION MEASURES:**Site Hydrology and Beneficial Uses

The proposed Whirlwind Substation site is in the middle of a stream flow alluvial fan with very dynamic flow and sediment transport characteristics. The beneficial uses that the alluvial fan provides to the area around the proposed site are ground water recharge and wildlife habitat. These beneficial uses are protected under the Water Quality Control Plan for the Lahontan Region (Basin Plan); as a result, State Water Board staff were concerned that forcing the alluvial fan system through a proposed single stormwater management channel along the perimeter of the site would cause aggradation and headcutting upstream of the Project, and channel incision and widening downstream of the Project. These potential impacts would disrupt alluvial fan processes and impact beneficial uses. To address this issue, Water Board staff required SCE to demonstrate that the proposed drainage system design along the perimeter of the site would not cause the impacts described above.

To estimate sediment yield, existing data for reservoirs located in the vicinity of the Project were reviewed and annual average sediment yield estimates were made using Soil Conservation Service (SCS) sediment maps and the Pacific Southwest Inter-Agency Committee (PSIAC) method for estimating sediment yield. A single event estimate was also conducted using the Modified Universal Soil Loss Equation (MUSLE) for a 5-year, 24-hour storm event. FLO-2D two dimensional flood routing software was used to generate models depicting the pre- and post-Project conditions at the site for a 5-year 24-hour storm event.

The Hydrologic/Hydraulic and Sediment Yield Report showed that pre-Project and post-Project drainage conditions for the site were similar and no extreme scour or deposition is occurring for both pre- and post-Project conditions. Based on findings during preparation of the report, an additional berm was put into the storm water channel design on the western side of the site so that the channel would carry a large portion of storm water further south so that deposition and scour resulting from a storm event does not occur beyond the boundaries of the Project site. In summary, no excessive scouring or deposition should occur as a result of the Project based on these findings.

### Sensitive Species

The proposed Whirlwind Substation occurs within known foraging and nesting habitat of Swainson's hawk. A low density population of desert tortoise is also known in the area. Protocol-level surveys were conducted for the federally-listed desert tortoise and the state-listed Swainson's hawk and Mohave ground squirrel. Protocol-level surveys were also conducted for burrowing owl, a California Species of Special Concern. Surveys were negative for all species, except burrowing owl where an active burrow was identified within the disturbance area. Minimization measures, including tortoise exclusion fencing, will be taken to avoid significant impacts to these species. Appropriate mitigation measures, as listed in the Final Environmental Impact Report (FEIR)/ Final Environmental Impact Statement (FEIS) and the U.S. Fish and Wildlife (USFWS) Biological Opinion (File No. FWS-10BOI17-10F0215), will be required to compensate for the loss of habitat for these listed species.

### Mitigation Measures

The EIR/EIS for the TRTP proposed Applicant Proposed Measures (APMs) and Mitigation Measures (MM) to minimize Project impacts. The following measures include a selection of measures relating to hydrologic BMPs and wildlife that will be implemented to protect waters of the State and beneficial uses of waters:

- APM HYD-3, APM HAZ-2, and APM HAZ-5 will be implemented to ensure that hazardous materials are handled and stored properly and that any spills are appropriately remediated.
- APM BIO-1, APM BIO-9, and MMs B-5, B-7, B-10, B-18a, B-18b, B-19, B-22b, B-23, B-29, B-37, and B-38 will be implemented to provide preconstruction surveys, focused surveys, and monitoring to avoid and minimize impacts on special-status species including raptors and special-status plants.
- APM BIO-2, APM BIO-3, and MM B-1a will be implemented to ensure that compensatory mitigation is provided for impacts on native vegetation communities on site.
- APM BIO-4, APM HYD-1, APM HYD-4, MM H-1a, and MM H-1b will be implemented to ensure that construction and operations crews use a SWPPP and Best Management Practices (BMPs).
- APM BIO-5 requires Biological Monitors to be onsite during Project construction

- APM BIO-5, and MMs B-5, B-7, and B-8b, B-10, B-14, B-22b, B-23, B-27, B-29, B-37, and B-38 will be implemented to ensure that potential impacts on special-status wildlife and plants species are avoided. If it is determined that special-status species will be impacted, the California Public Utilities Commission (CPUC) will be consulted for concurrence of proposed methods to proceed prior to any ground-disturbance activities.
- APM BIO-6, APM HYD-2, and MM B-1b will be implemented to ensure that all construction crews and contractors participate in a Worker Environmental Awareness Program (WEAP).
- APM BIO 7 and B-1a will be implemented to ensure that, should any special-status species or their habitats be affected by the Project, appropriate compensatory mitigation, as determined by the regulatory agencies, will be provided.
- APM BIO-8 and MM B-5 will be implemented to avoid impacts on nesting birds.
- MM B-3b and B-3c will be implemented to avoid the spread of noxious weeds during Project construction.
- MM B-14 will be implemented to ensure the daily removal of trash and micro-trash from the site.

These mitigation measures are listed in more detail in Attachment F of this Notice of Applicability.

#### Compensatory Mitigation

The Project will permanently fill 0.03 acre of ephemeral desert wash. This impact will be mitigated at a 3:1 ratio (mitigation: impact), resulting in a total mitigation purchase of 0.09 acre of desert wash habitat for the Project. Mitigation will be performed through the Desert Tortoise Preserve Committee mitigation bank located in Kern County. The Implementation Agreement terms provided by the Desert Tortoise Preserve Committee, indicate that habitat acquisition will take place within the federally-designated Desert Tortoise Research and Natural Area or within the Desert Tortoise Research and Natural Area's Expansion Area. SCE will enter into an Implementation Agreement with the Desert Tortoise Preserve Committee within 18 months of issuance of the Incidental Take Permit (2081 Permit), which was issued by CDFG on November 15, 2010. A copy of the Implementation Agreement with Desert Tortoise Preserve Committee will be submitted to State Water Board staff within 30 days after the final draft of the Implementation Agreement is completed and approved. Compensatory mitigation at the

Desert Tortoise Natural Area was also proposed to compensate for Project impacts to federally listed species and jurisdictional streambeds regulated by USFWS and CDFG. The use of this mitigation bank for Project impacts has been approved by the USFWS and CDFG.

The General Order requires the applicant to prepare a mitigation plan. In lieu of a mitigation plan, State Water Board staff approve the purchase of mitigation credits through the Desert Tortoise Preserve Committee because this compensatory mitigation is expected to adequately compensate for loss of habitat within waters of the State associated with the discharge of fill material. Enrollment in the General Order requires SCE to proceed with the purchase of mitigation credits through the Desert Tortoise Preserve Committee.

#### **STATEMENT OF FINDINGS:**

##### California Environmental Quality Act

The California Public Utilities Commission (CPUC) is the Lead Agency responsible for compliance with the California Environmental Quality Act (CEQA; Pub. Resources Code, § 21000 et seq.) The CPUC certified the FEIR for the TRTP on October 1, 2009 and filed a Notice of Determination with the State Clearinghouse on December 21, 2009. The State Water Board, as a responsible agency, consulted with the CPUC, reviewed and submitted comments on the draft environmental document, and designated appropriate staff to attend meetings and coordinate with the CPUC. In making its determinations and findings, the State Water Board must presume that the FEIR comports with the requirements of CEQA and is valid. (Pub. Resources Code, § 21167.3, subd. (b).) As such, the State Water Board has reviewed and considered the environmental documents and all proposed mitigation measures.

The State Water Board reviewed and evaluated the significant and potentially significant impacts to water quality identified in the FEIR. The various Impacts, APMs, and MMs discussed above, and listed in the FEIR and Attachment F of this water quality certification, were adopted to reduce and minimize Project impacts. The various MMs related to water quality include development of a Construction Stormwater Pollution Prevention Plan (SWPPP) with accidental spill control procedures, establishment of an environmental training program, implementation of flood and erosion structure damage protection measures, implementation of compensatory mitigation for impacts to special status species, and cessation of construction in the Angeles National Forest during heavy precipitation.

The State Water Board finds that these mitigation measures for significant and potentially significant water quality impacts as identified in the FEIR and set forth in

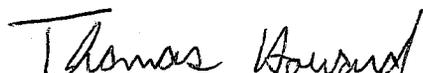
Attachment F, along with the measures proposed in the NOI and supplemental NOI materials, and the conditions in the General Order, to be adequate to reduce water quality impacts to less than significant levels.

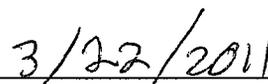
### CONDITIONS OF APPROVAL

The Applicant must comply with the requirements specified in Water Quality Order No. 2004-0004-DWQ (attached). Failure to comply with the requirements of the General Order and the conditions of this NOA may result in an enforcement action taken by the State Water Board. SCE must also comply with all other State and Federal laws that apply to this Project. Upon completion of the Project, SCE must submit a Notice of Termination requesting to be relieved of the requirements of the General Order.

In addition, the SCE must implement the mitigation and minimization measures that were proposed in the NOI and in the supplemental material submitted by the SCE. These measures include actions that are designed to avoid impacts to sensitive species.

If you have any questions regarding this Notice of Applicability please contact Bob Solecki at (916) 341-5483 or [rsolecki@waterboards.ca.gov](mailto:rsolecki@waterboards.ca.gov).

  
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Thomas Howard  
Executive Director  
State Water Resources Control Board

  
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Date

- Attachments (6):
- A. Signatory Requirement
  - B. Water Quality Order No. 2004-0004-DWQ
  - C. Project Information Sheet
  - D. Whirlwind Substation Regional Map
  - E. Whirlwind Substation Map of Delineated Waters and Impacts
  - F. Applicant Proposed Measures (APM) and Mitigation Measures (MM) from the EIR/EIS for TRTP: Segment 9 – Whirlwind Substation