Don Houston
Environmental Project Manager
1010 Tavern Road
Alpine, CA 91901
(T) XXX-XXX-XXXX
(F) XXX-XXX-XXXX

October 2, 2012

Ms. Amy Baker
Project Manager
California Public Utilities Commission
505 Van Ness Avenue, 4th Floor
San Francisco, CA 94102

Re: Notice to Proceed (NTP) Request #11 to Construct the 138 Kilovolt (kV) Overhead Transmission Line

Dear Ms. Baker:

On June 21, 2012, the California Public Utilities Commission (CPUC) selected the East County (ECO) Substation Alternative Site combined with the ECO Partial Underground 138 kV Transmission Route Alternative (Decision A.09-08-003) as the approved ECO Substation Project (Project). The decision grants San Diego Gas & Electric Company (SDG&E) a Permit to Construct and conditionally authorizes construction of the Project with the implementation of pre-construction mitigation measures (MMs). A Notice of Determination was submitted to the State Clearinghouse on June 21, 2012, indicating the CPUC's approval of the Project.

Purpose

SDG&E is formally requesting authorization from the CPUC to begin construction of the 138 kV Overhead Transmission Line as described in Minor Project Refinement (MPR) Request #6, which was submitted to the CPUC on July 5, 2013, and approved on September 23, 2013. The 138 kV Overhead Transmission Line will extend from riser pole Steel Pole- (SP-) 38B to riser pole SP-91B and will include construction of associated permanent access roads, pads, and rock removal workspace, as well as temporary workspace for the construction of guard structures, access roads, pole maintenance pads, and pull sites. The locations of the facilities to be constructed under this NTP are depicted in Attachment A: Section 2 Route Map. Construction methods, equipment, and Project components associated with overhead construction were described in detail in the Final Environmental Impact Report/Environmental Impact Statement (EIR/EIS).

Pre-Construction Mitigation Measures

A list of all of the pre-construction measures that are relevant to the 138 kV Overhead Transmission Line (as identified in the Mitigation Monitoring, Compliance, and Reporting Plan [MMCRP]) and their statuses are summarized in Attachment B: Pre-Construction Status Report of this NTP request. Attachment B: Pre-Construction Status Report provides the full text of each measure, its corresponding status, an explanation of the status, and description of how some of the measures have been divided into tasks to facilitate identification and completion of the pre-construction components of those tasks. In order to facilitate tracking and implementation, some of the measures have been organized into tasks so that the pre-construction and construction components of the measures can be tracked separately. These measures may appear on more than one line in Attachment B: Pre-Construction Status Report and are identified by different task numbers. The pre-construction components of these measures may be identified as "complete," while the rest of the measure will either be marked as "to be implemented during construction" or will not be included in the report, depending on the specific language of the measure.

Attachment A: Section 2 Route Map includes Project maps showing the limits of temporary and permanent workspace with waters marked on them for the 138 kV Overhead Transmission Line, in accordance with MMs BIO-1a, BIO-2a, BIO-2c, and VIS-3e. Attachment C: Residential Locations Map include Project maps demonstrating that SDG&E has minimized construction of new access roads directly approaching existing or proposed poles in a straight line from sensitive viewing locations immediately downhill of structures, in accordance with VIS-3j. The locations of poles in relation to residences and existing transmission structures to demonstrate compliance with MM VIS-3l and MM VIS-3k are also depicted in Attachment C: Residential Locations Map. Purchase orders demonstrating that dulled-metal finish structures and non-specular conductor will be installed in accordance with MM VIS-3i and VIS-3j are included as Attachment D: Conductor Purchase Orders. A memo identifying objects to be grounded has been included as Attachment E: Objects Grounded Memo to demonstrate compliance with MM PS-2. Coordination with the Department of Defense, Federal Aviation Administration, and United States Customs and Border Patrol is documented in Attachment F: TRA-3 Memo, as required by MM TRA-3. In accordance with the conditions in the MPR #6 approval letter, a revised Noxious Weeds and Invasive Species Control Plan with updated map book was submitted to the CPUC on September 30, 2013. Construction of the 138 kV Overhead Transmission Line will not begin until all of the outstanding pre-construction measures have been satisfied. Documentation indicating completion of the pending MMs identified in Attachment B: Pre-Construction Status Report will be submitted to the CPUC within two weeks. All other required MMs, as stated in the MMCRP, will be implemented immediately prior to or during construction. In addition, an amended Surface Treatment Plan, amended Tree Replacement Plan, and amended Habitat Restoration Plan will be submitted to the CPUC as required by the approval of MPR #6.

Activity Summary

Construction of the 138 kV Overhead Transmission Line will occur in accordance with the descriptions provided in MPR Request #6 and Section B.3.1.3, Project Description in the Final EIR/EIS. The information described in these documents includes specific details pertaining to excavation, disturbance areas, construction of access roads, material staging and storage, pole installation, and conductor pulling.

Construction of the 138 kV Overhead Transmission Line is anticipated to take approximately one year from initial site development through completion, beginning in October 2013 and ending in October 2014. Temporary impact areas associated with the 138 kV Overhead Transmission Line will be restored following construction. Restoration activities will include removal of any temporary facilities; collection and proper disposal of any waste, trash, and debris; and revegetation of temporary disturbance areas.

We respectfully request authorization of this NTP request by October 15, 2013, so that we can meet the Project schedule. Should you have any questions or need additional information, please do not hesitate to contact me at (XXX) XXX-XXXX.

Sincerely,

Don Houston
Environmental Project Manager
San Diego Gas & Electric Company

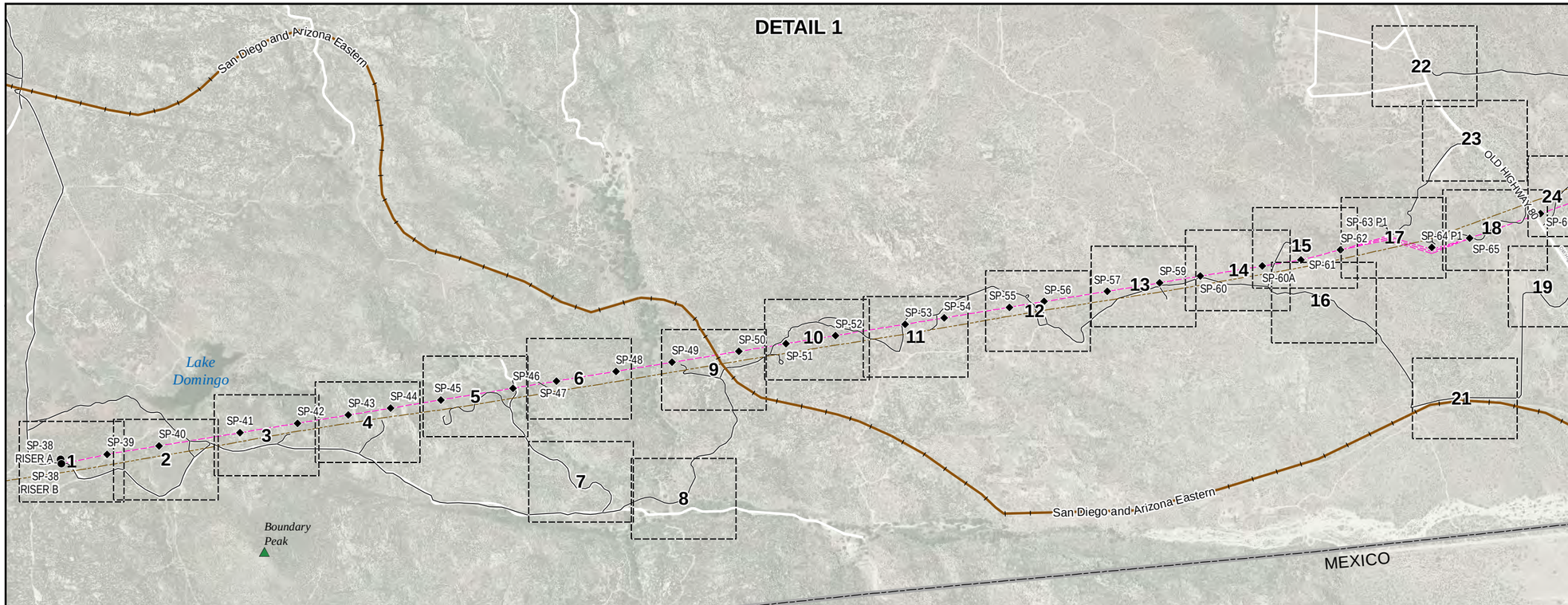
Attachment A: Section 2 Route Map
Attachment B: Pre-Construction Status Report
Attachment C: Residential Locations Map
Attachment D: Conductor Purchase Orders
Attachment E: Objects Grounded Memo
Attachment F: TRA-3 Memo

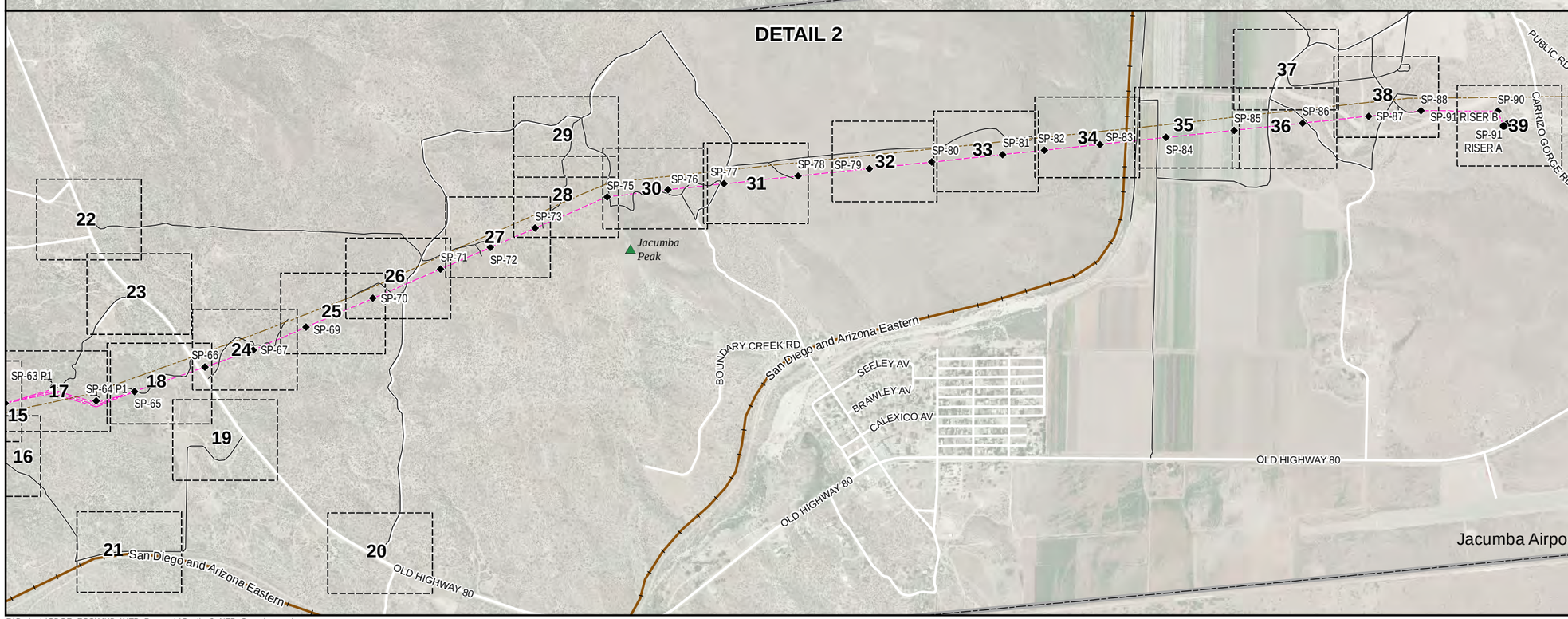
cc: Kirstie Reynolds, SDG&E
David Hochart, Dudek
Anne Marie McGraw, Insignia Environmental
Jeffry Coward, Insignia Environmental

ATTACHMENT A: SECTION 2 ROUTE MAP

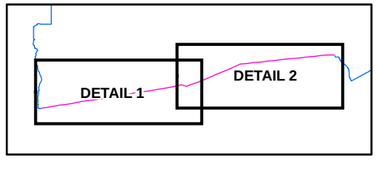
Attachment A:
Section 2 Route Map Overview

East County Substation Project





- Proposed 138 kV Pole Location
- Proposed Riser Pole
- Relocated 138 kV Overhead
- Existing Transmission Line
- Existing Access Road Centerline
- Map Extent



SDGE A Sempra Energy utility

INSIGNIA ENVIRONMENTAL

1:18,000

0 1,000 2,000 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP_Overview.mxd

9/26/2013

Attachment A:
Section 2 Route Map 1 of 39

East County Substation Project

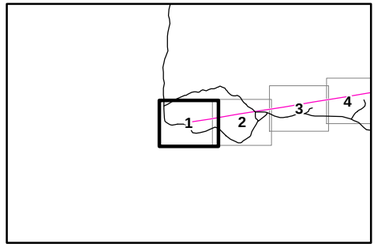
- 138 kV Pole
- Riser Pole
- 138 kV Overhead
- 138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage



SDGE A Sempra Energy utility

INSIGNIA ENVIRONMENTAL

1:1,200

0 100 200 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP.mxd

9/26/2013

Attachment A:
Section 2 Route Map 2 of 39

East County Substation Project

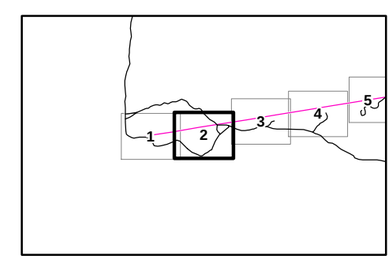
- 138 kV Pole
- Riser Pole
- 138 kV Overhead
- 138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage



SDGE A Sempra Energy utility

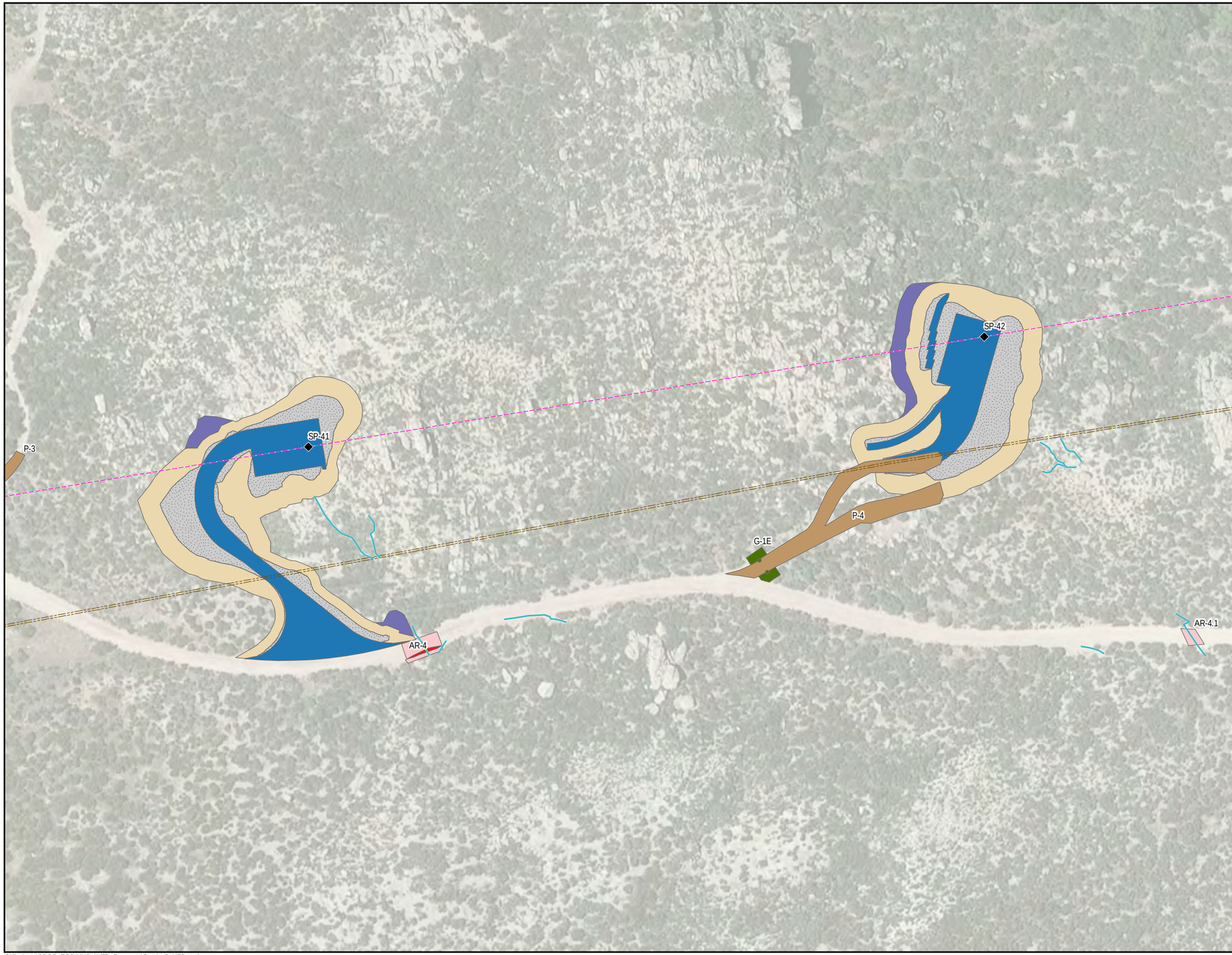
INSIGNIA ENVIRONMENTAL

1:1,200

0 100 200 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP.mxd

9/26/2013



Attachment A:
Section 2 Route Map 3 of 39

East County Substation Project

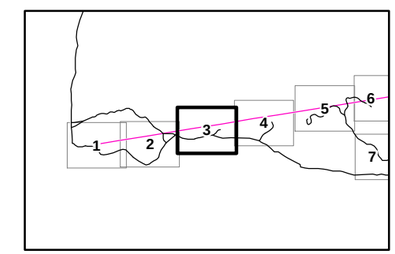
- 138 kV Pole
- Riser Pole
- 138 kV Overhead
- 138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage



SDGE A Sempra Energy utility

INSIGNIA ENVIRONMENTAL

N

1:1,200

0 100 200 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP.mxd

9/26/2013

Attachment A:
Section 2 Route Map 4 of 39

East County Substation Project

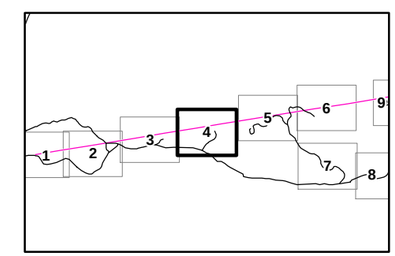
- 138 kV Pole
- Riser Pole
- 138 kV Overhead
- 138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage



SDGE A Sempra Energy utility

INSIGNIA ENVIRONMENTAL

1:1,200

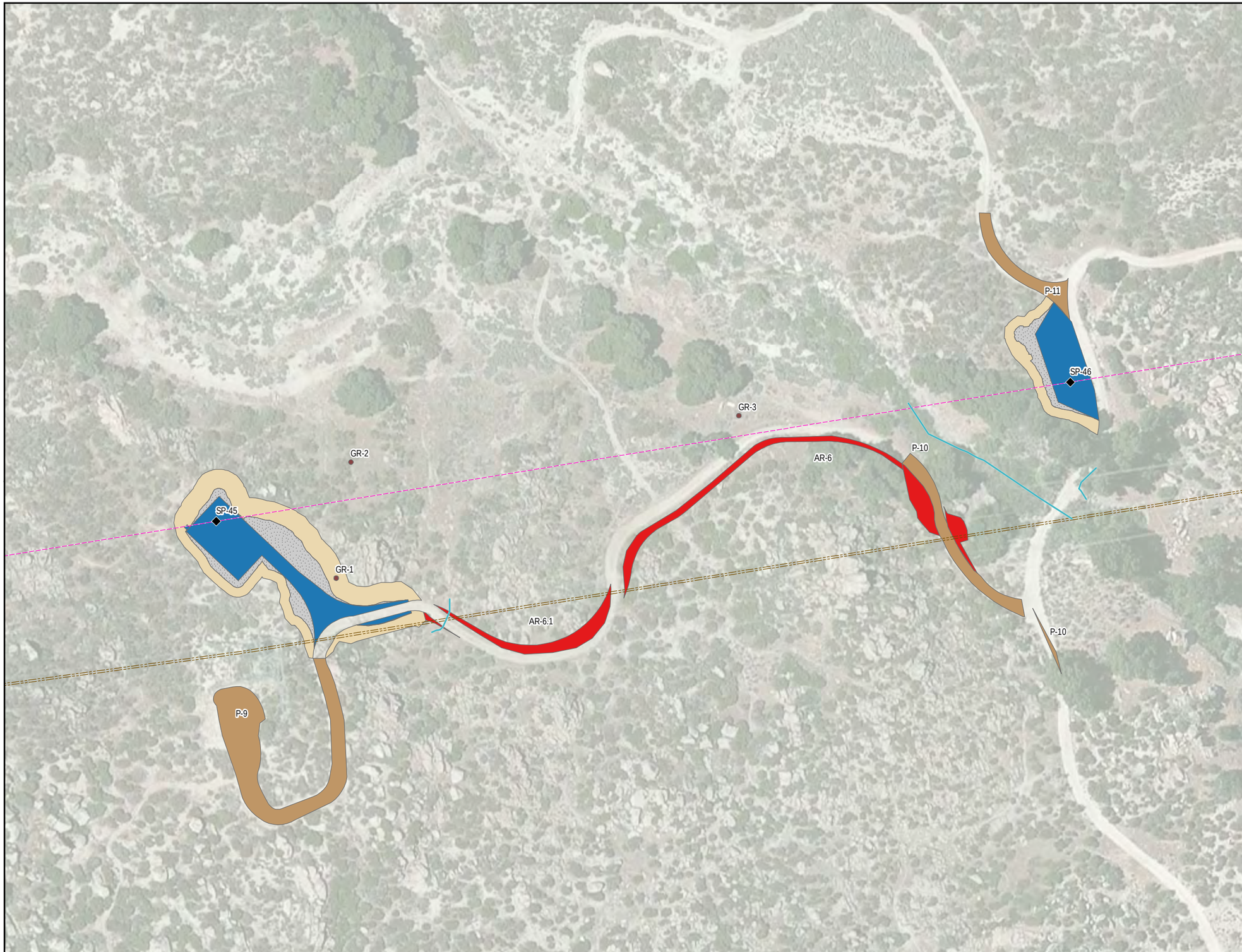
0 100 200 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP.mxd

9/26/2013

Attachment A:
Section 2 Route Map 5 of 39

East County Substation Project



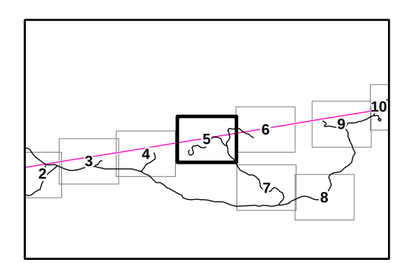
- 138 kV Pole
- Riser Pole
- 138 kV Overhead
- 138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage



SDGE A Sempra Energy utility

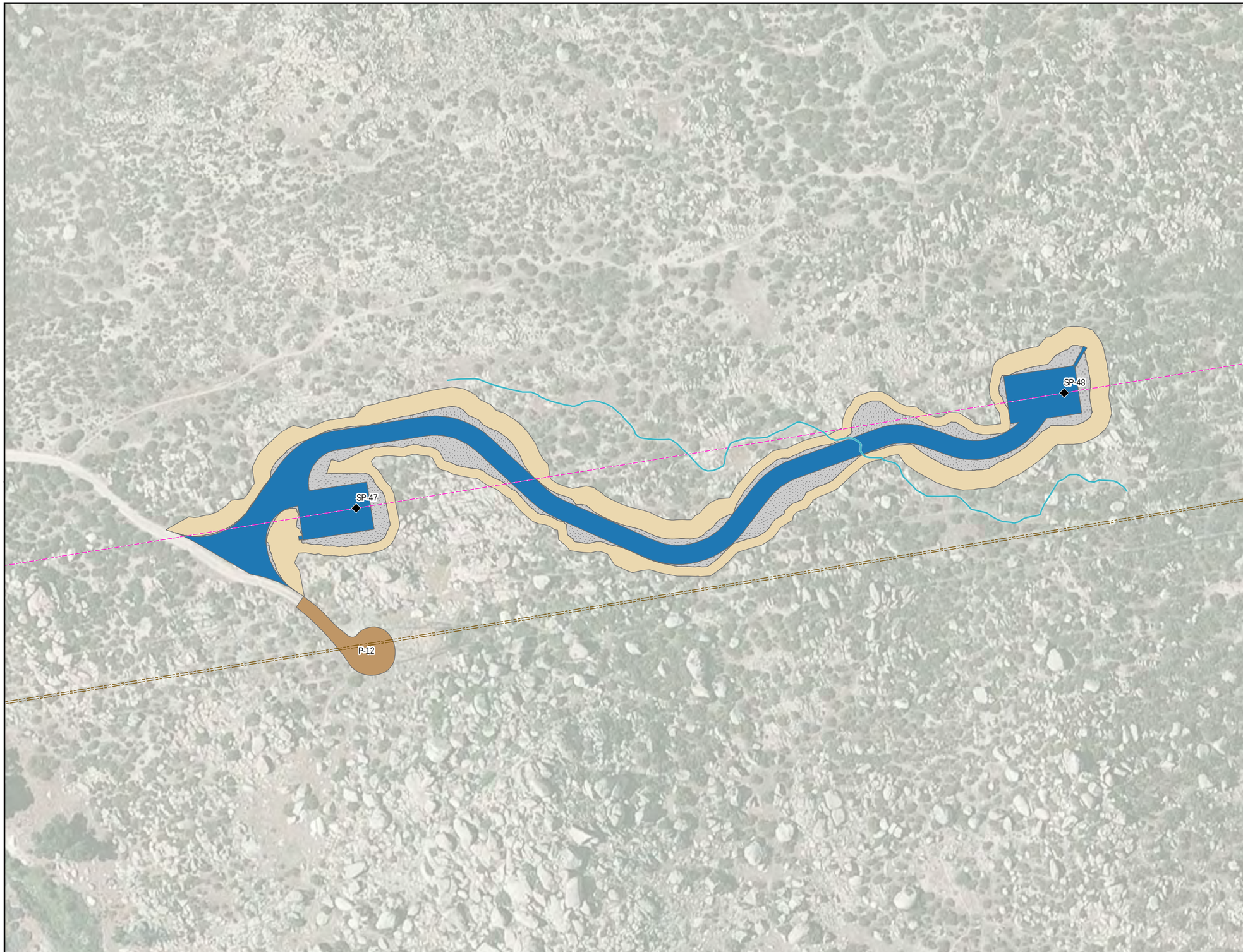
INSIGNIA ENVIRONMENTAL

1:1,200

0 100 200 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP.mxd

9/26/2013



Attachment A:
Section 2 Route Map 6 of 39

East County Substation Project

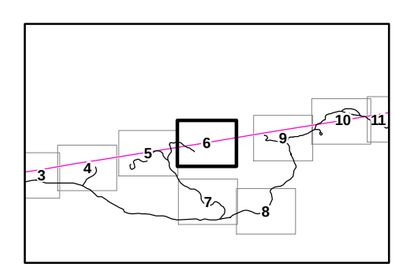
- 138 kV Pole
- Riser Pole
- 138 kV Overhead
- 138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage



SDGE A Sempra Energy utility

INSIGNIA ENVIRONMENTAL

1:1,200

0 100 200 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP.mxd

9/26/2013

Attachment A:
Section 2 Route Map 7 of 39

East County Substation Project

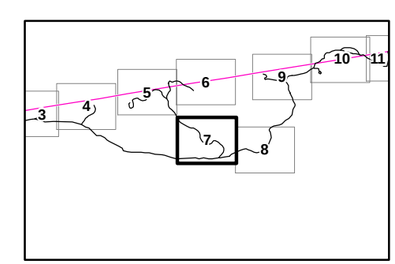
138 kV Pole
Riser Pole
138 kV Overhead
138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage



SDGE A Sempra Energy utility

INSIGNIA ENVIRONMENTAL

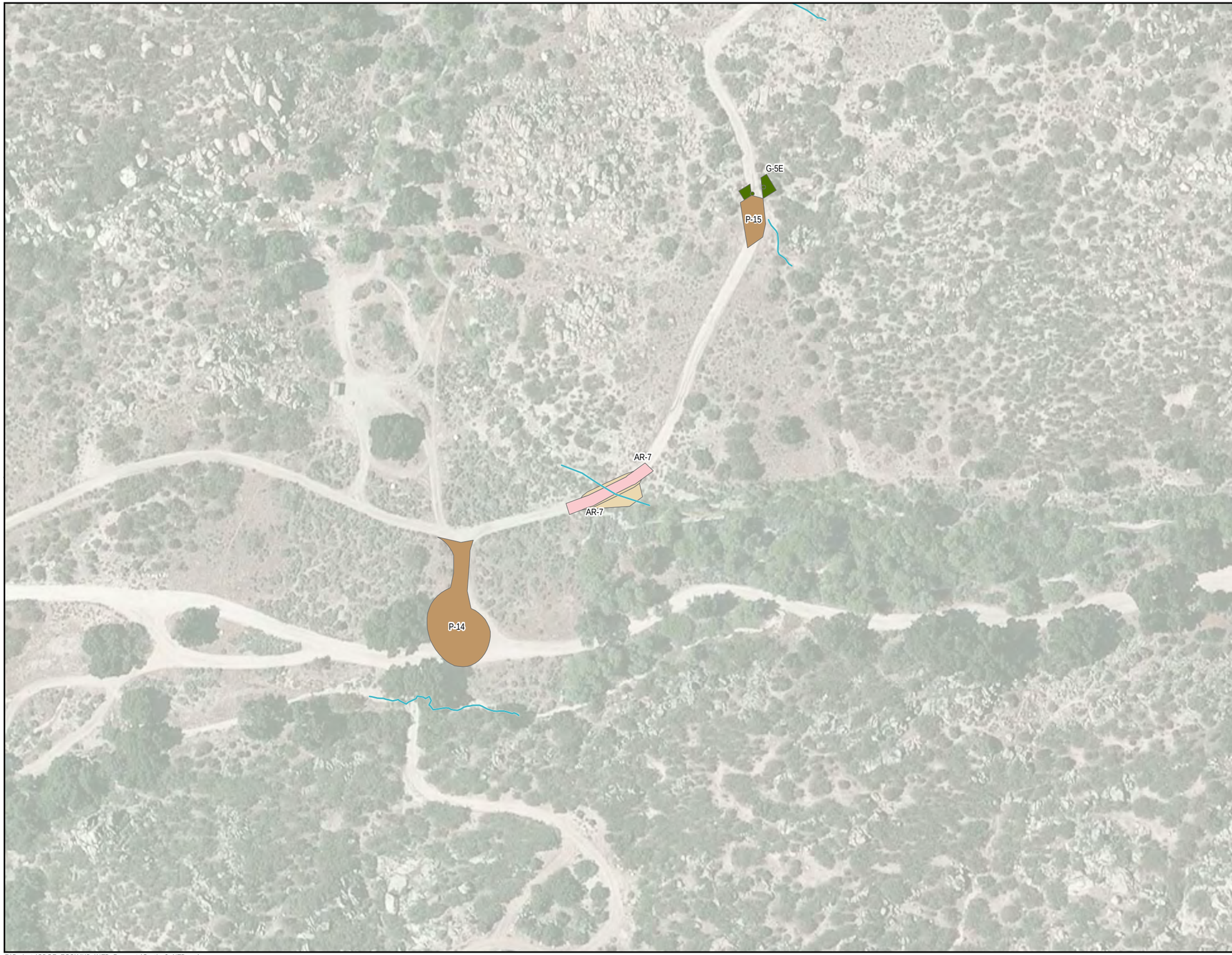
N

1:1,200

0 100 200 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP.mxd

9/26/2013



Attachment A:
Section 2 Route Map 8 of 39

East County Substation Project

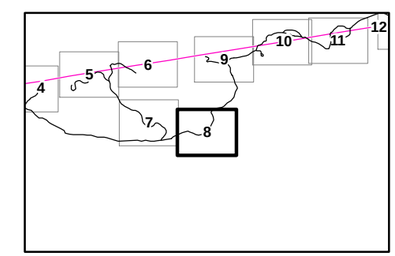
- 138 kV Pole
- Riser Pole
- 138 kV Overhead
- 138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage



SDGE A Sempra Energy utility

INSIGNIA ENVIRONMENTAL

N

1:1,200

0 100 200 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP.mxd

9/26/2013

Attachment A:
Section 2 Route Map 9 of 39

East County Substation Project

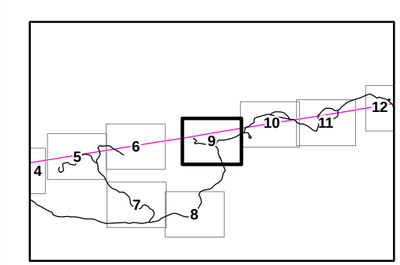
138 kV Pole
Riser Pole
138 kV Overhead
138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage



SDGE A Sempra Energy utility
INSIGNIA ENVIRONMENTAL

N

1:1,200

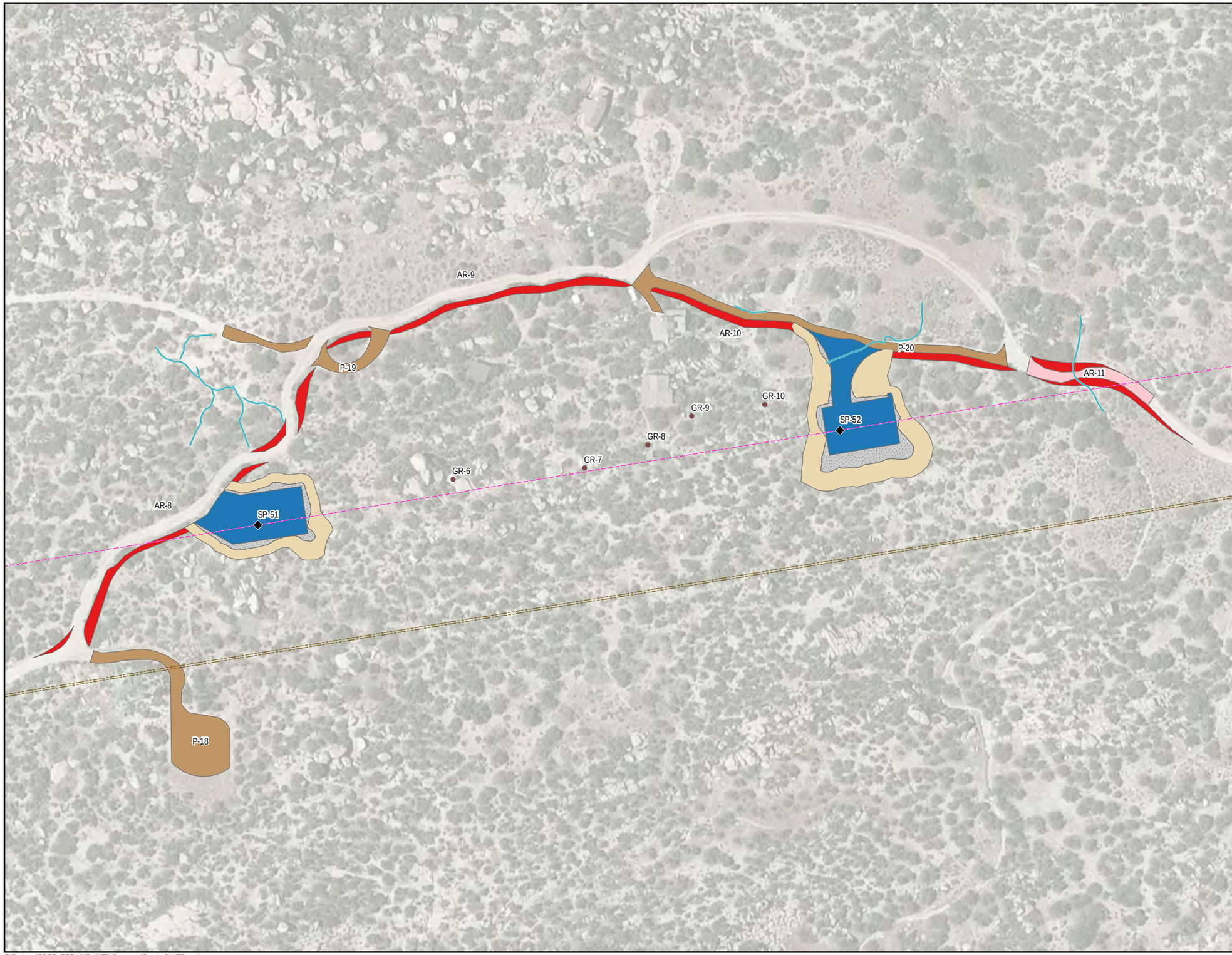
0 100 200 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP.mxd

9/26/2013

Attachment A:
Section 2 Route Map 10 of 39

East County Substation Project



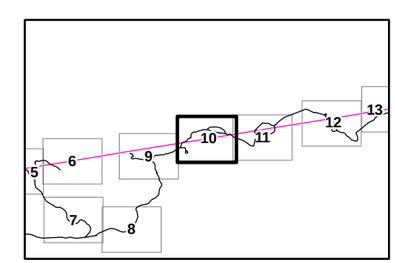
- 138 kV Pole
- Riser Pole
- 138 kV Overhead
- 138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage



SDGE A Sempra Energy utility

INSIGNIA ENVIRONMENTAL

N

1:1,200

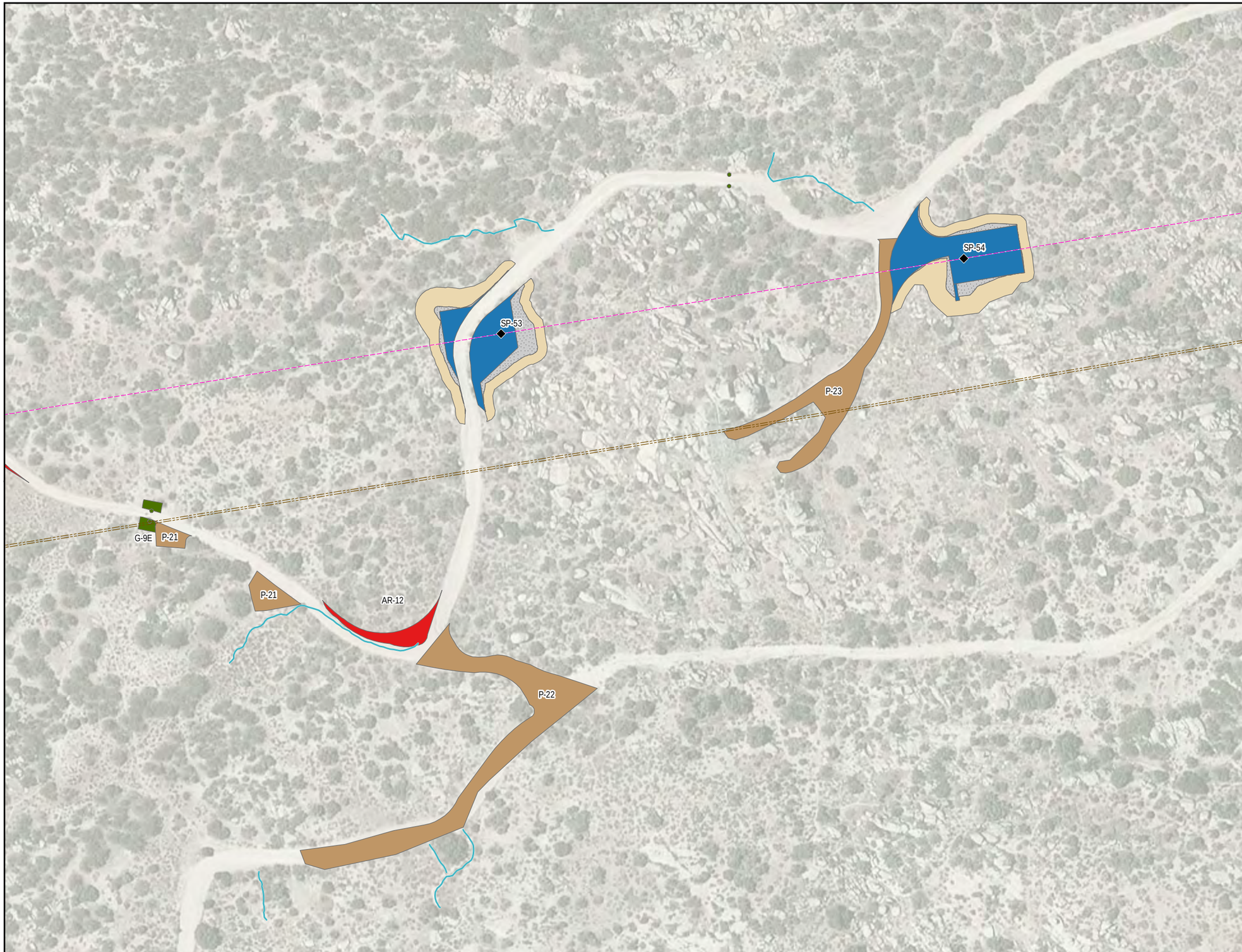
0 100 200 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP.mxd

9/26/2013

Attachment A:
Section 2 Route Map 11 of 39

East County Substation Project



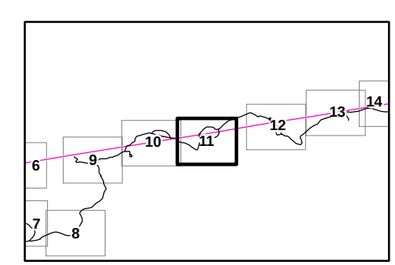
138 kV Pole
Riser Pole
138 kV Overhead
138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage

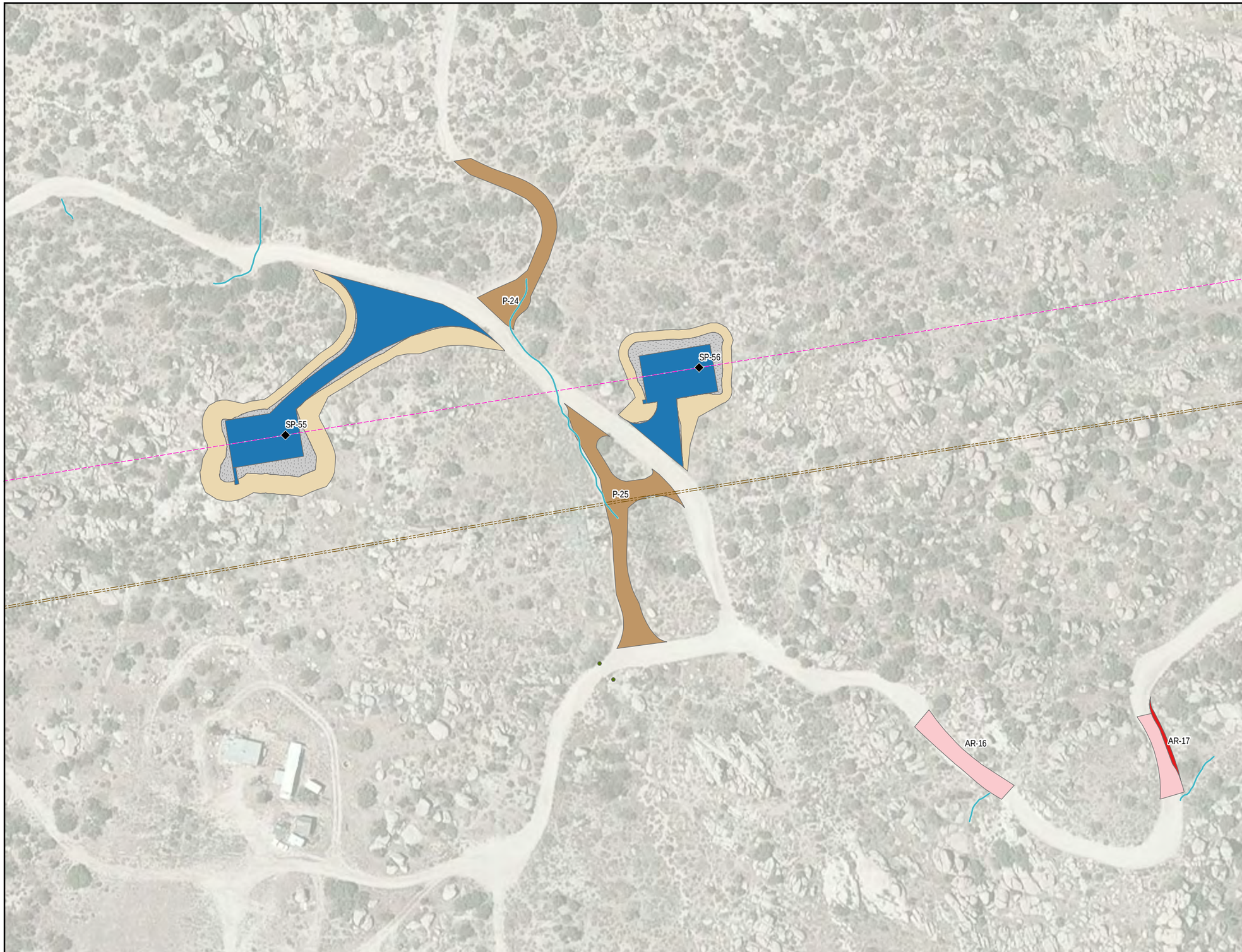


SDGE A Sempra Energy utility
INSIGNIA ENVIRONMENTAL

1:1,200
0 100 200 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP.mxd

9/26/2013



Attachment A:
Section 2 Route Map 12 of 39

East County Substation Project

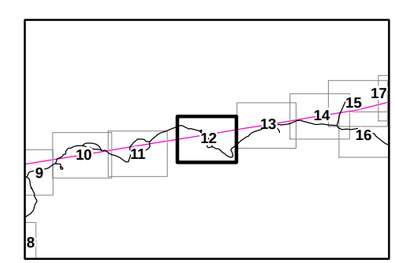
- 138 kV Pole
- Riser Pole
- 138 kV Overhead
- 138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage



SDGE A Sempra Energy utility

INSIGNIA ENVIRONMENTAL

N

1:1,200

0 100 200 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP.mxd

9/26/2013

Attachment A:
Section 2 Route Map 13 of 39

East County Substation Project

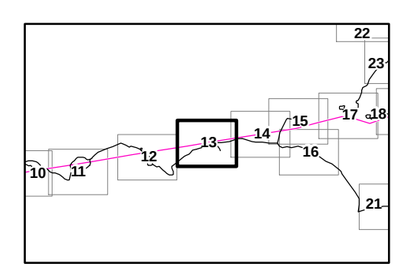
- 138 kV Pole
- Riser Pole
- 138 kV Overhead
- 138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage



SDGE A Sempra Energy utility

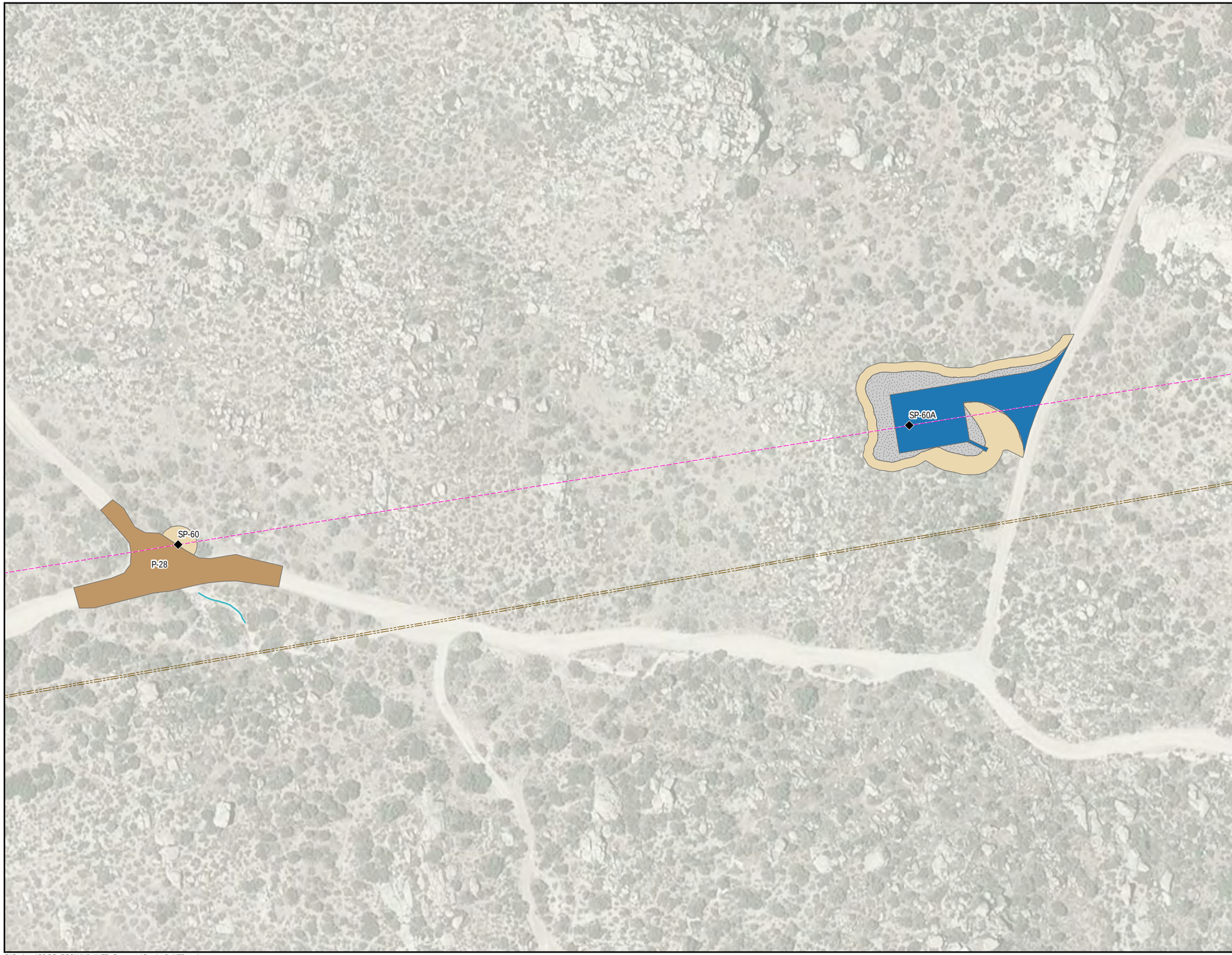
INSIGNIA ENVIRONMENTAL

1:1,200

0 100 200 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP.mxd

9/26/2013



Attachment A:
Section 2 Route Map 14 of 39

East County Substation Project

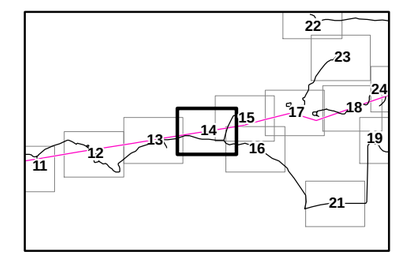
- 138 kV Pole
- Riser Pole
- 138 kV Overhead
- 138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage

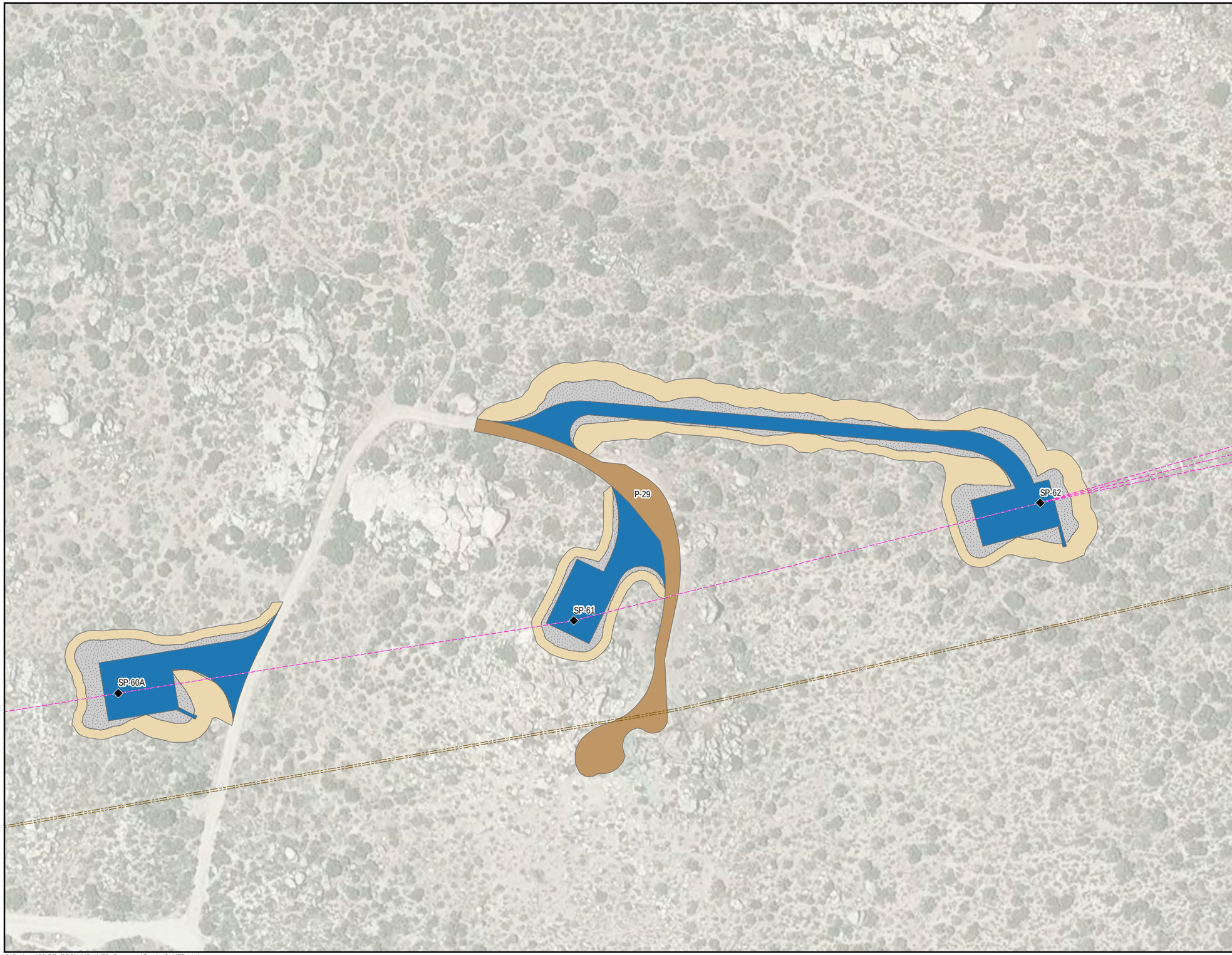


SDGE A Sempra Energy utility

INSIGNIA ENVIRONMENTAL

1:1,200

0 100 200 Feet



Attachment A:
Section 2 Route Map 15 of 39

East County Substation Project

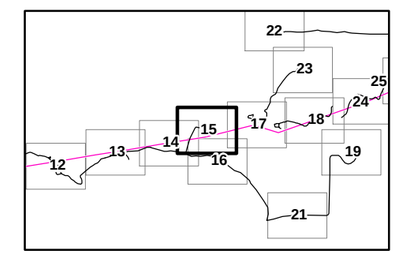
- 138 kV Pole
- Riser Pole
- 138 kV Overhead
- 138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage



SDGE A Sempra Energy utility
INSIGNIA ENVIRONMENTAL

1:1,200
0 100 200 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP.mxd

9/26/2013

Attachment A:
Section 2 Route Map 16 of 39

East County Substation Project

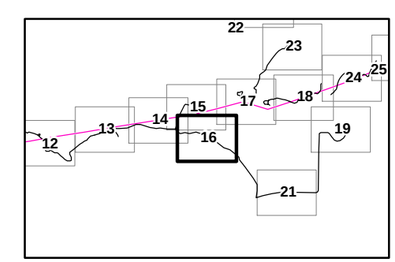
- 138 kV Pole
- Riser Pole
- 138 kV Overhead
- 138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage



SDGE A Sempra Energy utility

INSIGNIA ENVIRONMENTAL

1:1,200

0 100 200 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP.mxd

9/26/2013

Attachment A:
Section 2 Route Map 17 of 39

East County Substation Project

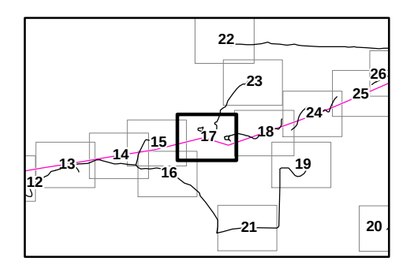
- 138 kV Pole
- Riser Pole
- 138 kV Overhead
- 138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage



SDGE A Sempra Energy utility

INSIGNIA ENVIRONMENTAL

N

1:1,200

0 100 200 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP.mxd

9/26/2013

Attachment A:
Section 2 Route Map 18 of 39

East County Substation Project

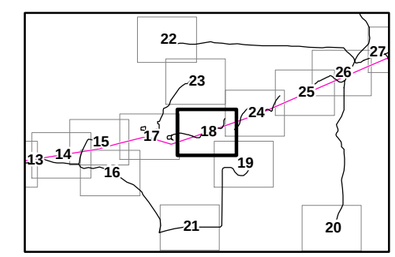
- 138 kV Pole
- Riser Pole
- 138 kV Overhead
- 138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage



SDGE a Sempra Energy utility

INSIGNIA ENVIRONMENTAL

N

1:1,200

0 100 200 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP.mxd

9/26/2013

Attachment A:
Section 2 Route Map 19 of 39

East County Substation Project

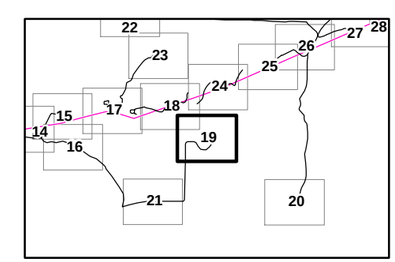
- 138 kV Pole
- Riser Pole
- 138 kV Overhead
- 138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage



SDGE A Sempra Energy utility

INSIGNIA ENVIRONMENTAL

N

1:1,200

0 100 200 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP.mxd

9/26/2013

Attachment A:
Section 2 Route Map 20 of 39

East County Substation Project

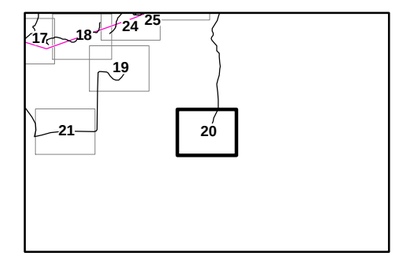
- 138 kV Pole
- Riser Pole
- 138 kV Overhead
- 138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage



SDGE A Sempra Energy utility

INSIGNIA ENVIRONMENTAL

N

1:1,200

0 100 200 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP.mxd

9/26/2013

Attachment A:
Section 2 Route Map 21 of 39

East County Substation Project

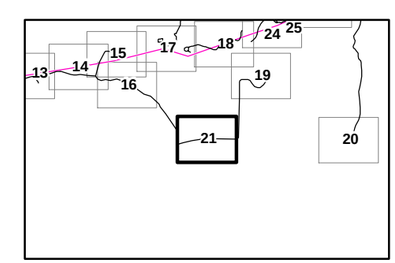
- 138 kV Pole
- Riser Pole
- 138 kV Overhead
- 138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage



SDGE A Sempra Energy utility

INSIGNIA ENVIRONMENTAL

1:1,200

0 100 200 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP.mxd

9/26/2013

Attachment A:
Section 2 Route Map 22 of 39

East County Substation Project

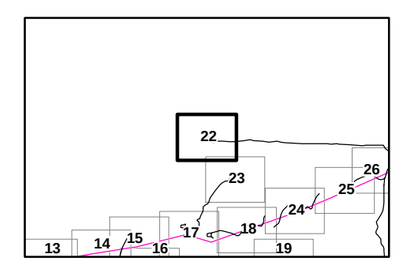
- 138 kV Pole
- Riser Pole
- 138 kV Overhead
- 138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage



SDGE A Sempra Energy utility

INSIGNIA ENVIRONMENTAL

N

1:1,200

0 100 200 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP.mxd

9/26/2013

Attachment A:
Section 2 Route Map 23 of 39

East County Substation Project

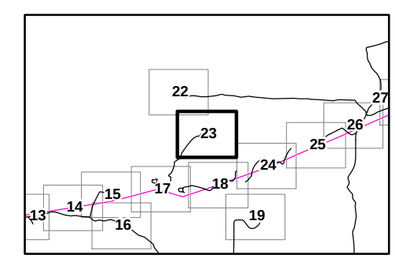
- 138 kV Pole
- Riser Pole
- 138 kV Overhead
- 138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage



SDGE A Sempra Energy utility

INSIGNIA ENVIRONMENTAL

N

1:1,200

0 100 200 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP.mxd

9/26/2013

Attachment A:
Section 2 Route Map 24 of 39

East County Substation Project

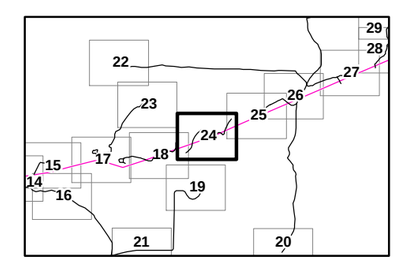
- 138 kV Pole
- Riser Pole
- 138 kV Overhead
- 138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage



SDGE A Sempra Energy utility

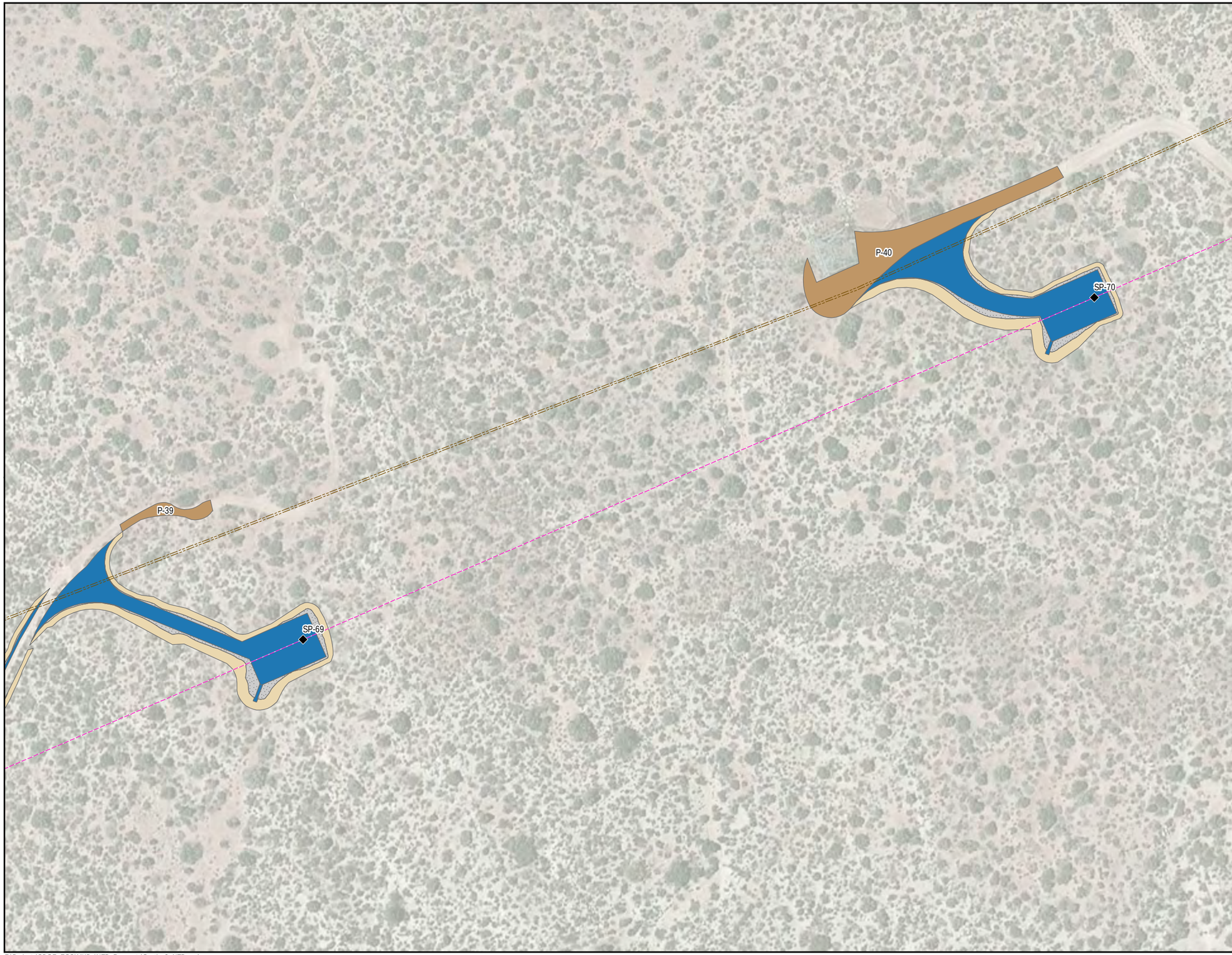
INSIGNIA ENVIRONMENTAL

1:1,200

0 100 200 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP.mxd

9/26/2013



Attachment A:
Section 2 Route Map 25 of 39

East County Substation Project

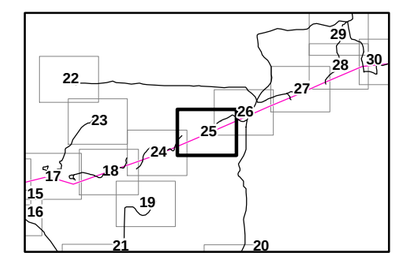
- 138 kV Pole
- Riser Pole
- 138 kV Overhead
- 138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage



SDGE A Sempra Energy utility

INSIGNIA ENVIRONMENTAL

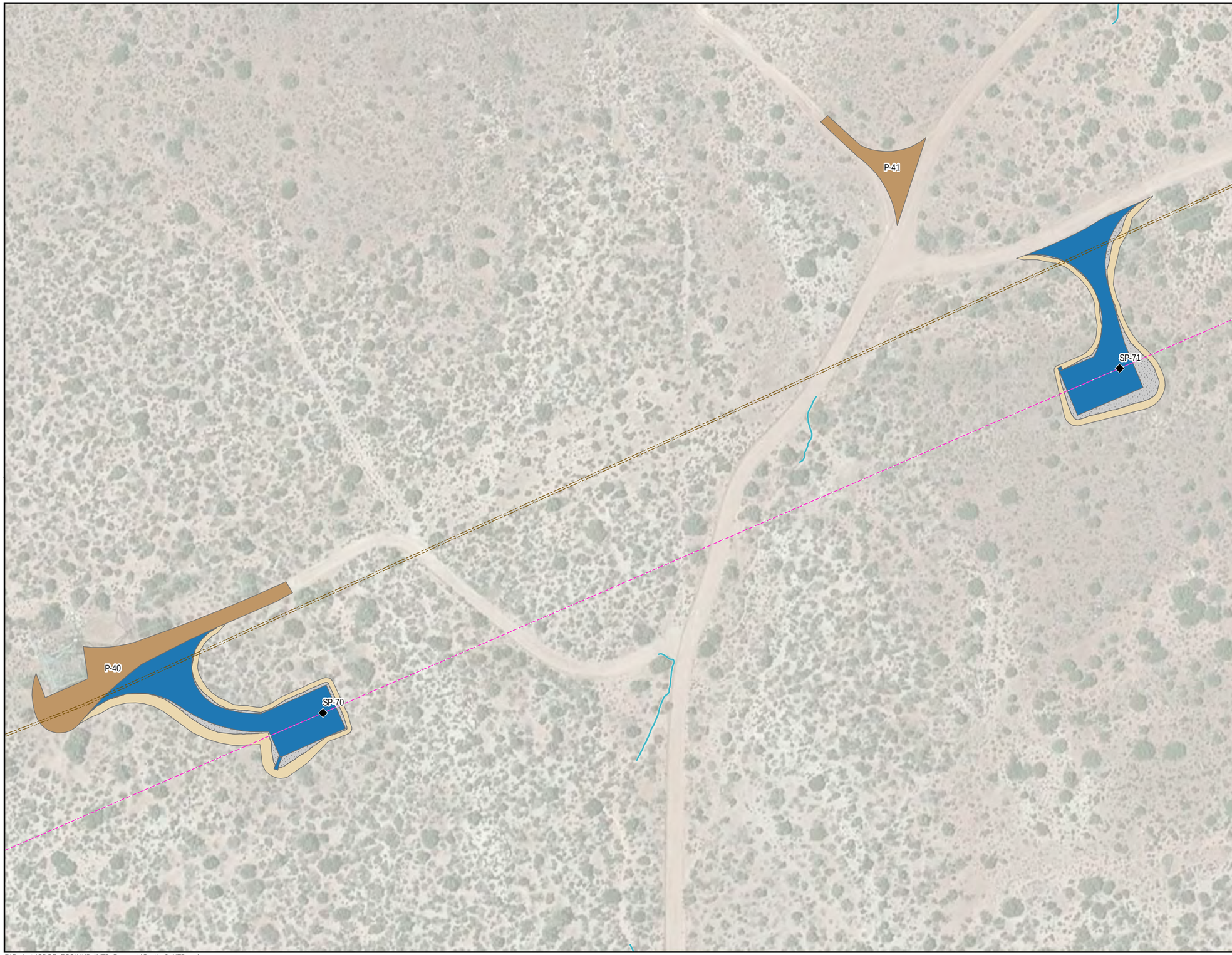
N

1:1,200

0 100 200 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP.mxd

9/26/2013



Attachment A:
Section 2 Route Map 26 of 39

East County Substation Project

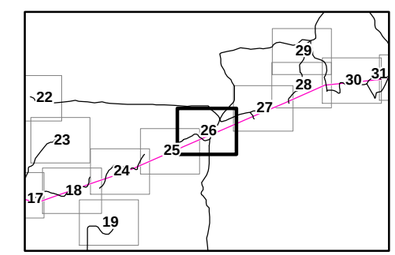
- 138 kV Pole
- Riser Pole
- 138 kV Overhead
- 138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage



SDGE a Sempra Energy utility

INSIGNIA ENVIRONMENTAL

N

1:1,200

0 100 200 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP.mxd

9/26/2013

Attachment A:
Section 2 Route Map 27 of 39

East County Substation Project

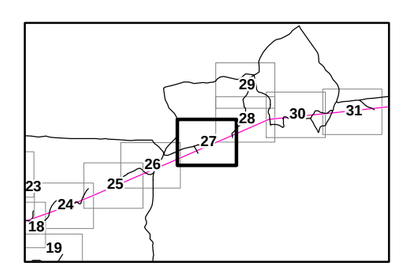
- 138 kV Pole
- Riser Pole
- 138 kV Overhead
- 138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage



SDGE A Sempra Energy utility

INSIGNIA ENVIRONMENTAL

N

1:1,200

0 100 200 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP.mxd

9/26/2013

Attachment A:
Section 2 Route Map 28 of 39

East County Substation Project

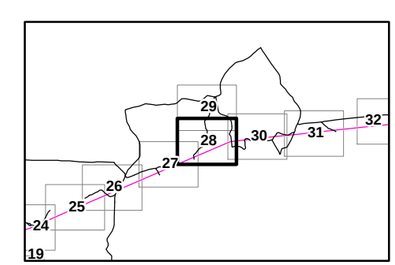
- 138 kV Pole
- Riser Pole
- 138 kV Overhead
- 138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage



SDGE A Sempra Energy utility

INSIGNIA ENVIRONMENTAL

N

1:1,200

0 100 200 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP.mxd

9/26/2013

Attachment A:
Section 2 Route Map 29 of 39

East County Substation Project

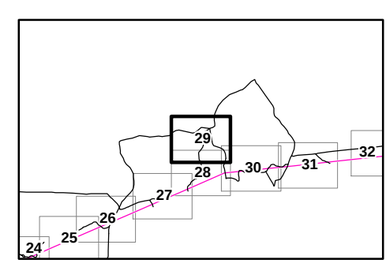
- 138 kV Pole
- Riser Pole
- 138 kV Overhead
- 138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage



SDGE A Sempra Energy utility

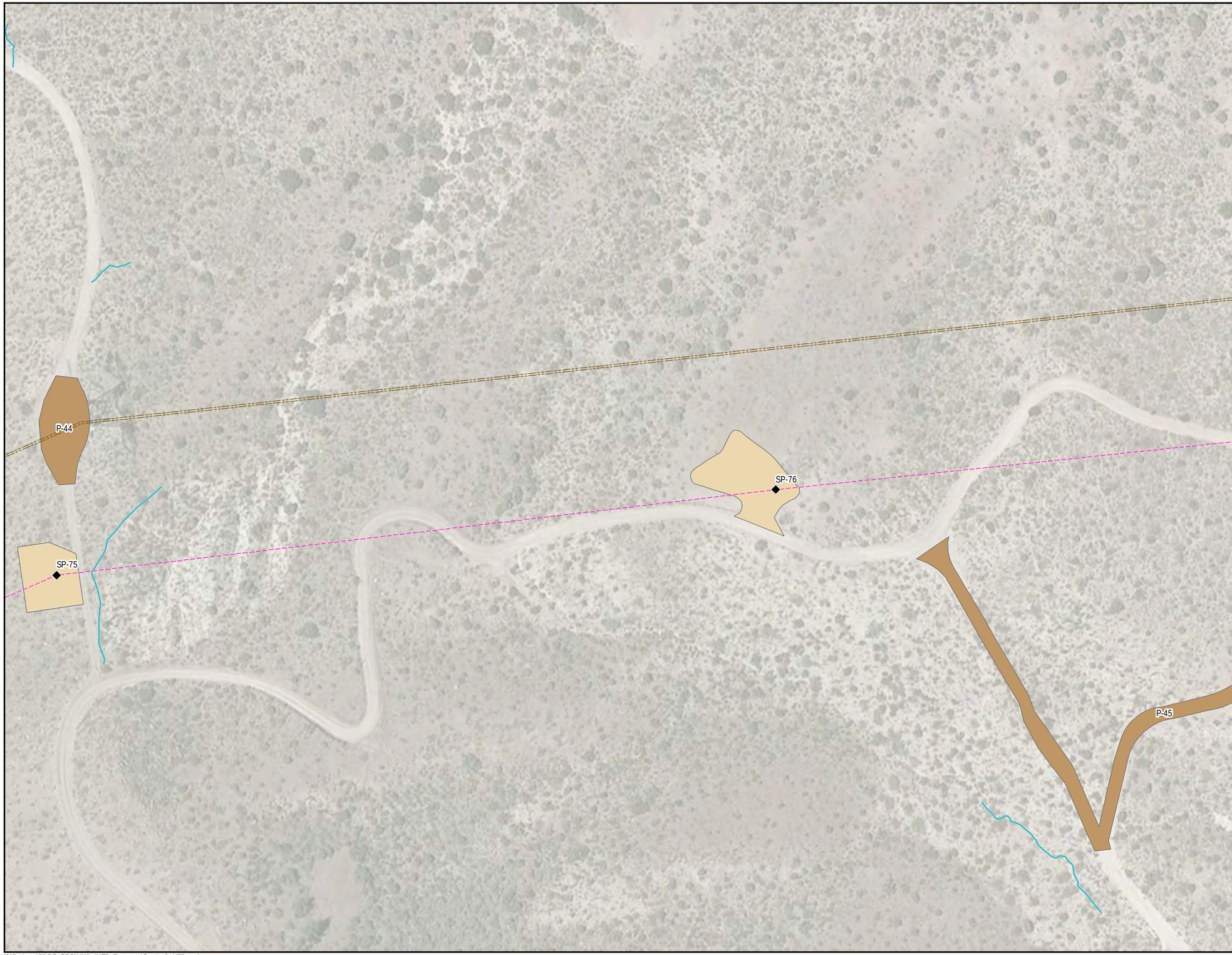
INSIGNIA ENVIRONMENTAL

1:1,200

0 100 200 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP.mxd

9/26/2013



Attachment A:
Section 2 Route Map 30 of 39

East County Substation Project

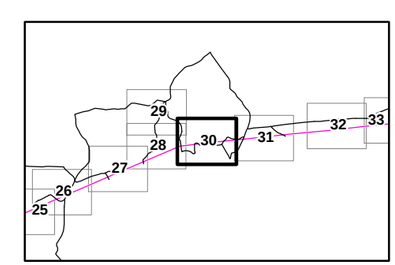
- 138 kV Pole
- Riser Pole
- 138 kV Overhead
- 138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage



SDGE A Sempra Energy utility

INSIGNIA ENVIRONMENTAL

1:1,200

0 100 200 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP.mxd

9/26/2013

Attachment A:
Section 2 Route Map 31 of 39

East County Substation Project

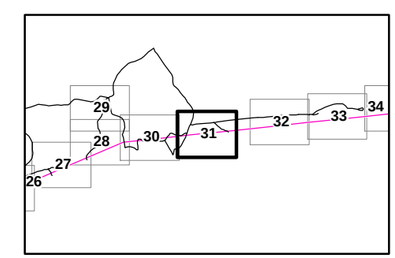
- 138 kV Pole
- Riser Pole
- 138 kV Overhead
- 138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage



SDGE A Sempra Energy utility

INSIGNIA ENVIRONMENTAL

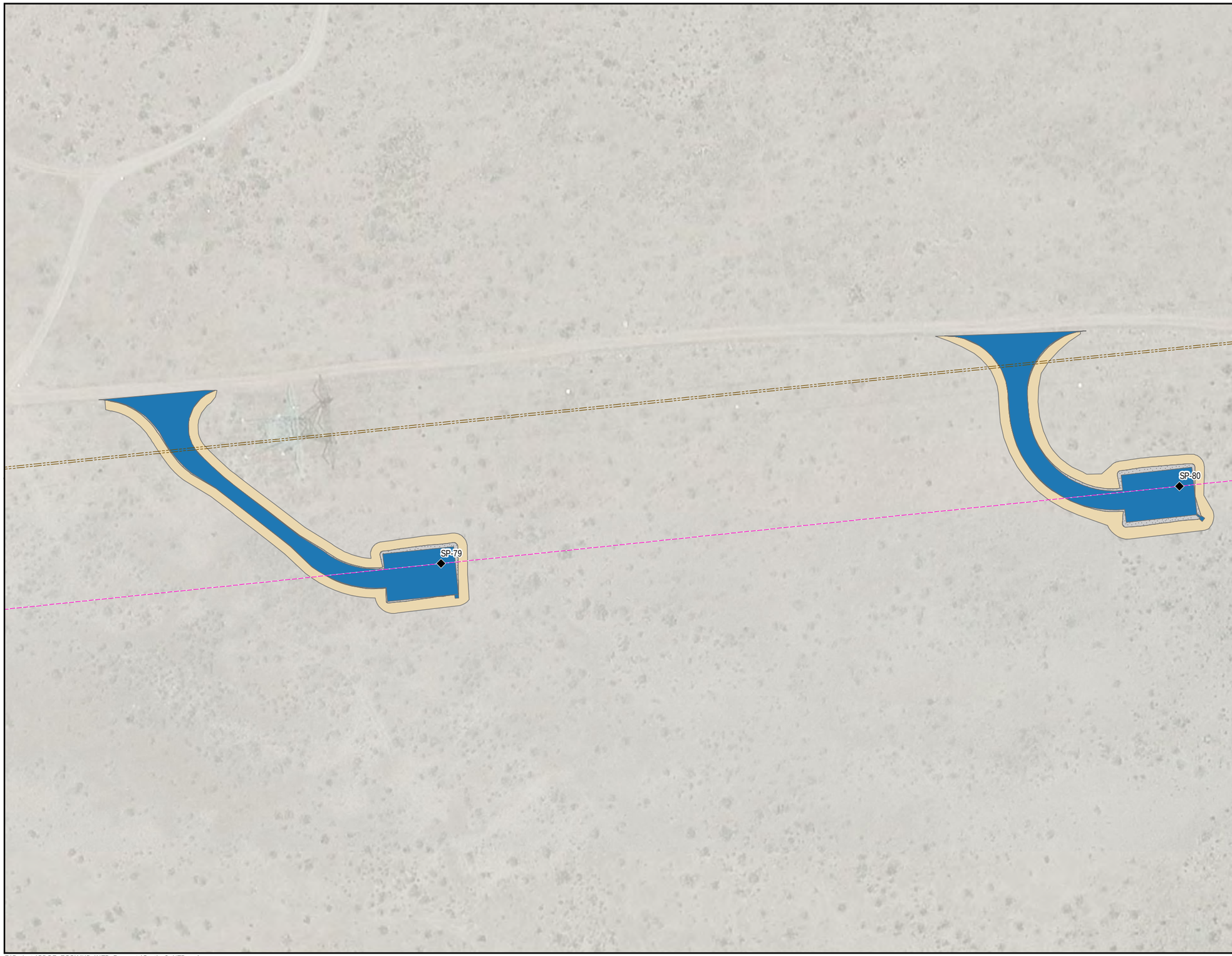
N

1:1,200

0 100 200 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP.mxd

9/26/2013



Attachment A:
Section 2 Route Map 32 of 39

East County Substation Project

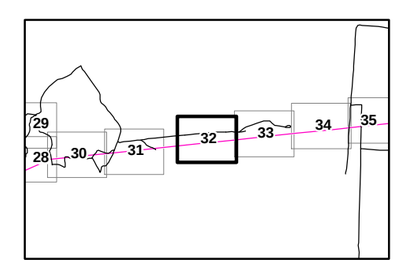
- 138 kV Pole
- Riser Pole
- 138 kV Overhead
- 138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage



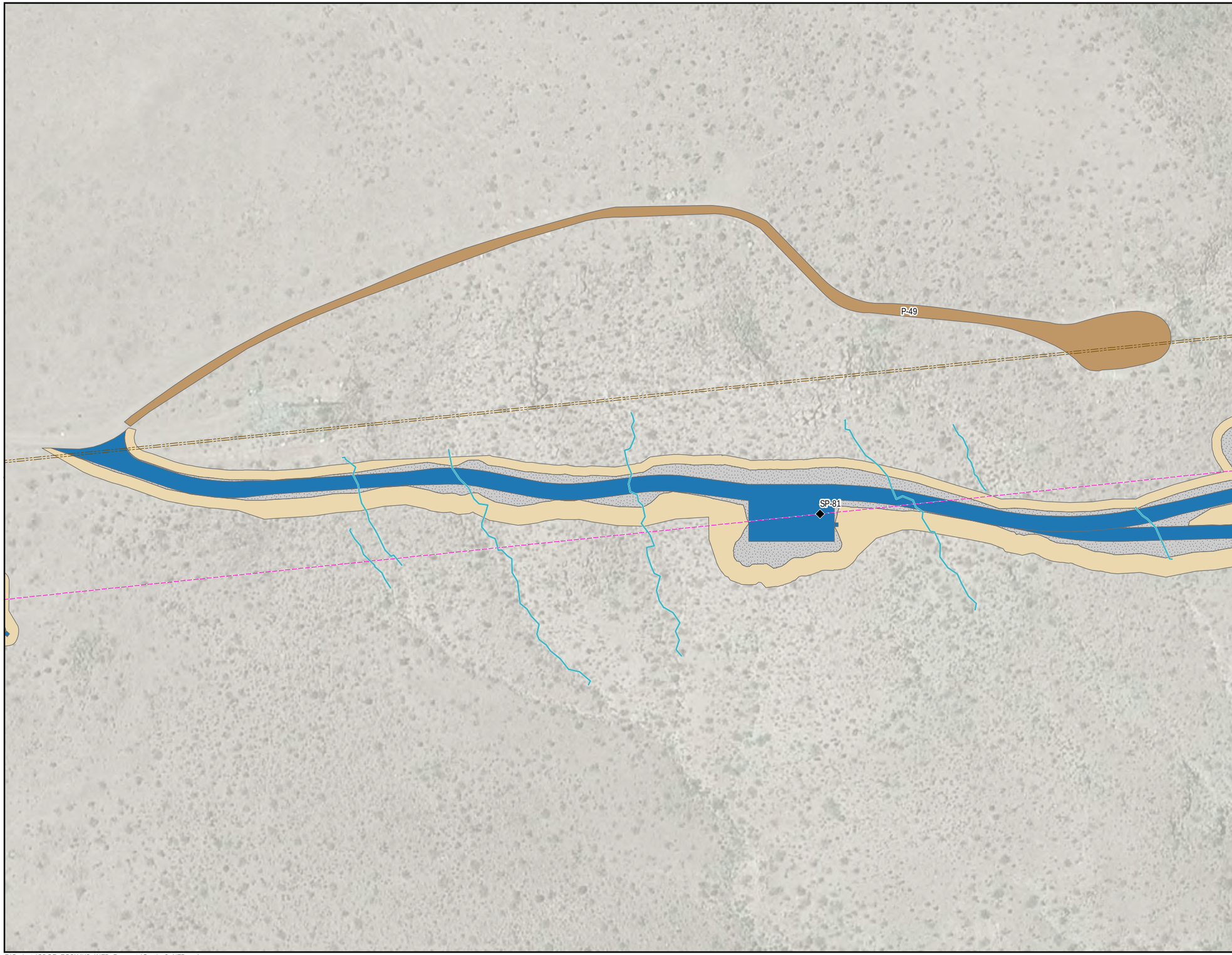
SDGE A Sempra Energy utility

INSIGNIA ENVIRONMENTAL

N

1:1,200

0 100 200 Feet



Attachment A:
Section 2 Route Map 33 of 39

East County Substation Project

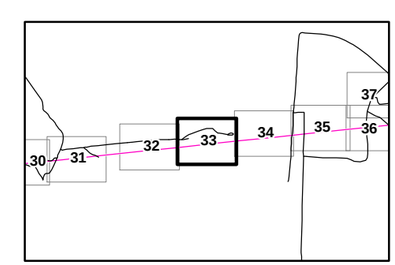
- 138 kV Pole
- Riser Pole
- 138 kV Overhead
- 138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage



SDGE A Sempra Energy utility

INSIGNIA ENVIRONMENTAL

1:1,200

0 100 200 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP.mxd

9/26/2013

Attachment A:
Section 2 Route Map 34 of 39

East County Substation Project

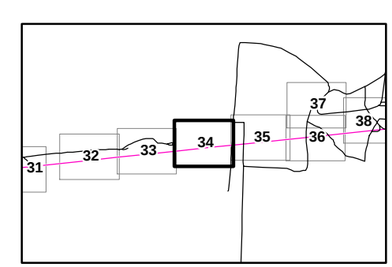
- 138 kV Pole
- Riser Pole
- 138 kV Overhead
- 138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage



SDGE A Sempra Energy utility

INSIGNIA ENVIRONMENTAL

N

1:1,200

0 100 200 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP.mxd

9/26/2013

Attachment A:
Section 2 Route Map 35 of 39

East County Substation Project

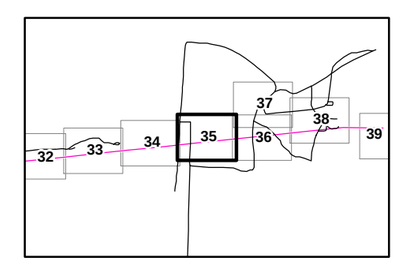
- 138 kV Pole
- Riser Pole
- 138 kV Overhead
- 138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage



SDGE A Sempra Energy utility

INSIGNIA ENVIRONMENTAL

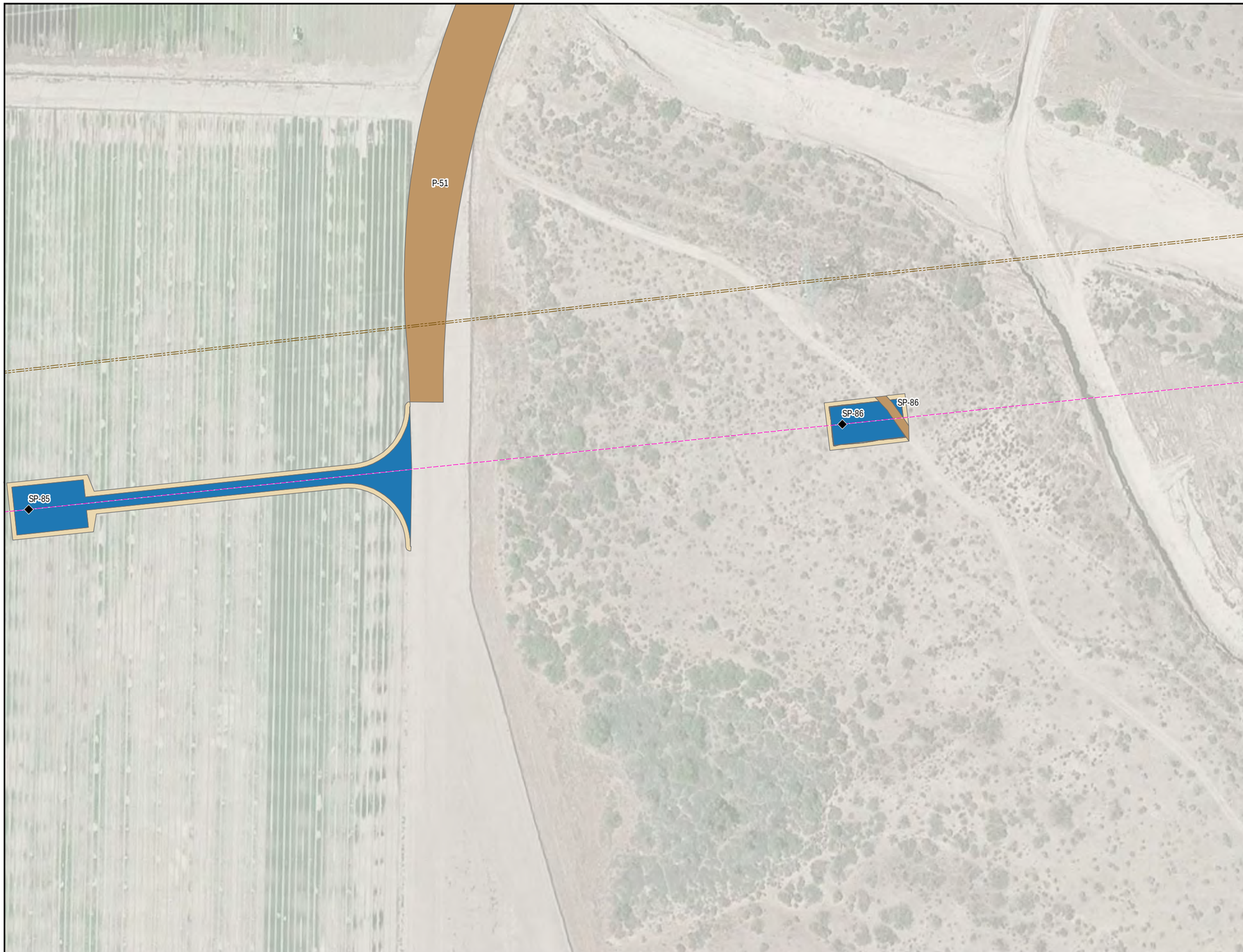
N

1:1,200

0 100 200 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP.mxd

9/26/2013



Attachment A:
Section 2 Route Map 36 of 39

East County Substation Project

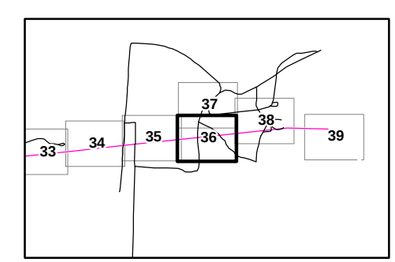
- 138 kV Pole
- Riser Pole
- 138 kV Overhead
- 138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage



SDGE A Sempra Energy utility

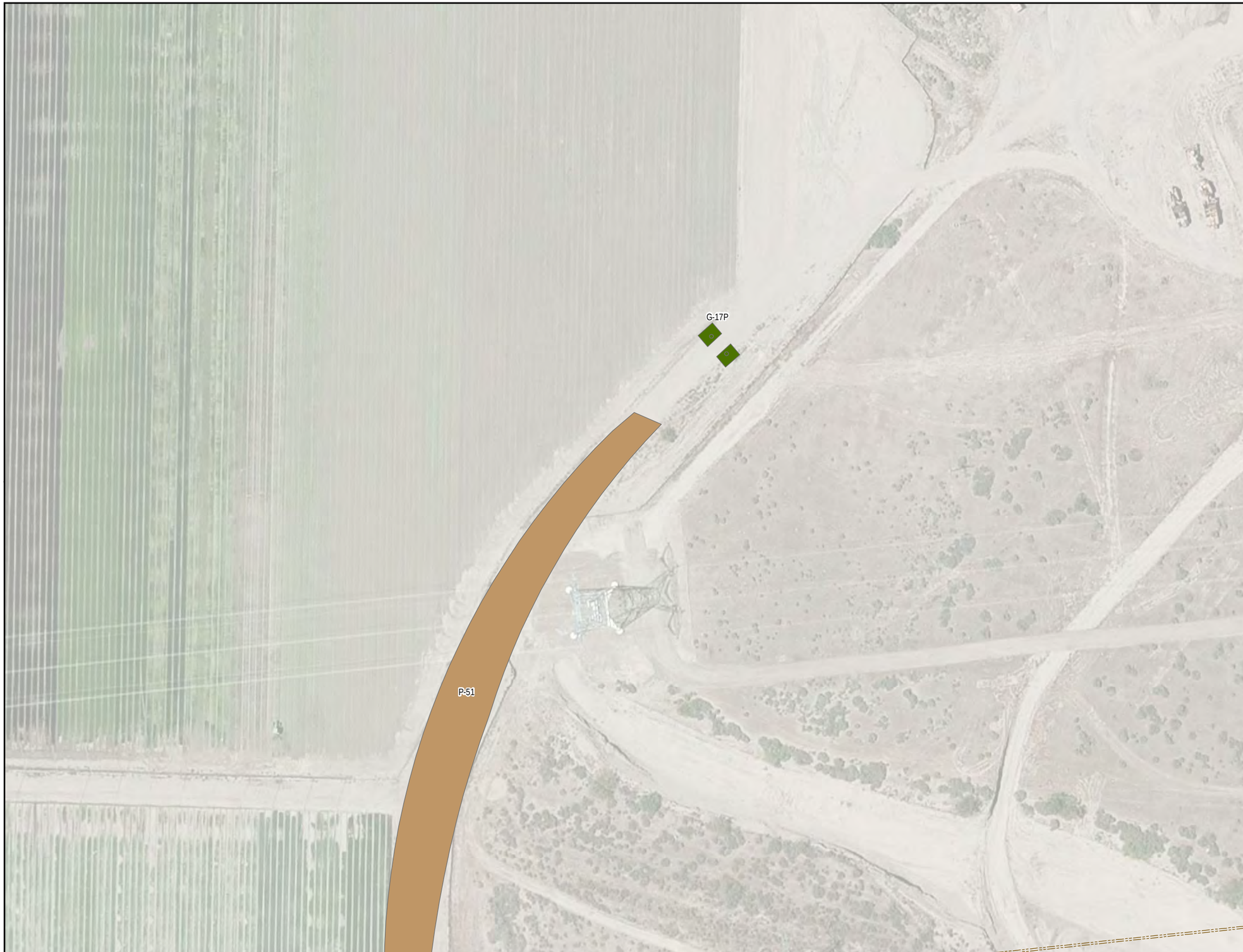
INSIGNIA ENVIRONMENTAL

1:1,200

0 100 200 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP.mxd

9/26/2013



Attachment A:
Section 2 Route Map 37 of 39

East County Substation Project

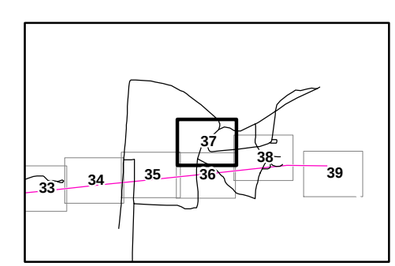
- 138 kV Pole
- Riser Pole
- 138 kV Overhead
- 138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage



SDGE A Sempra Energy utility

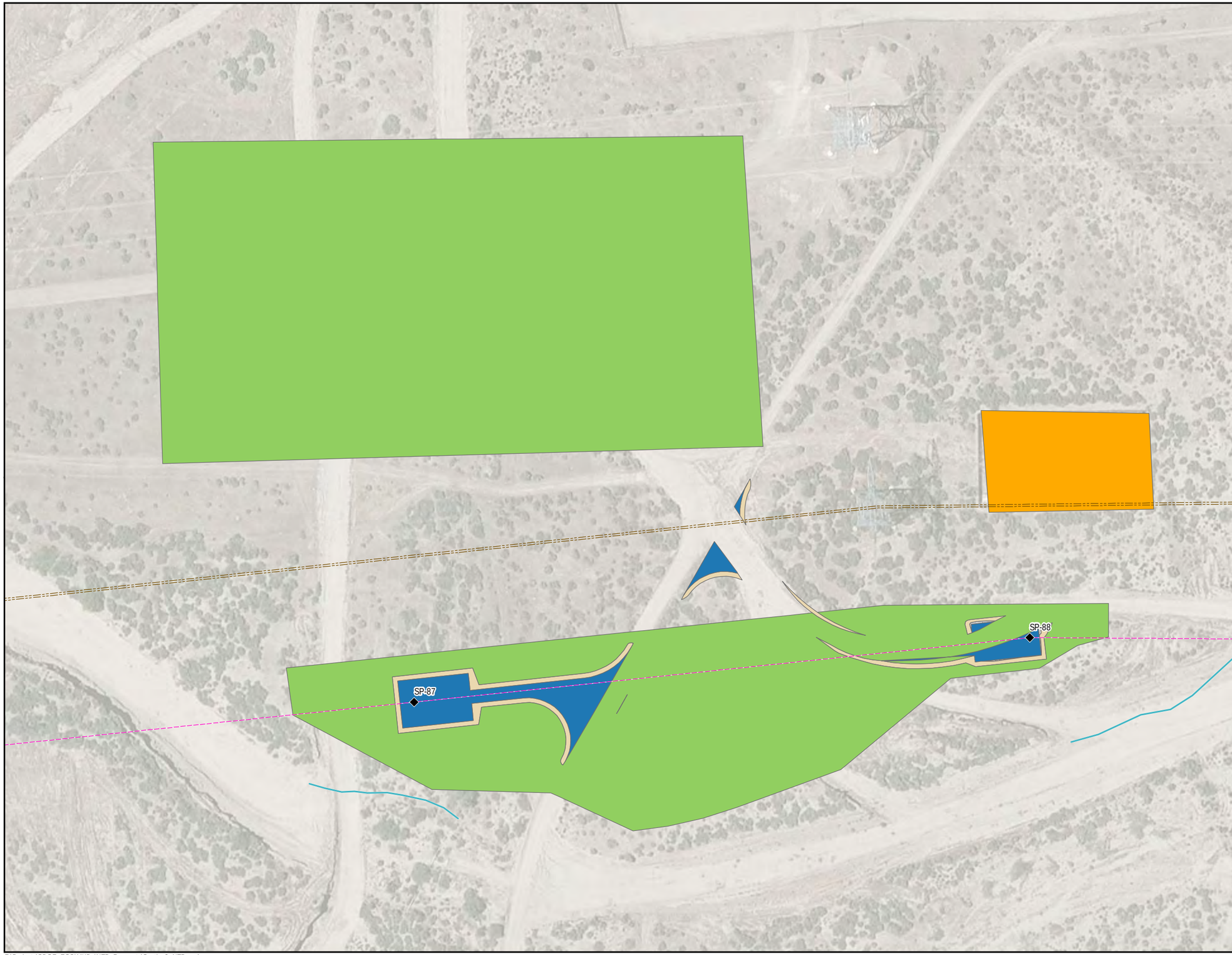
INSIGNIA ENVIRONMENTAL

1:1,200

0 100 200 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP.mxd

9/26/2013



Attachment A:
Section 2 Route Map 38 of 39

East County Substation Project

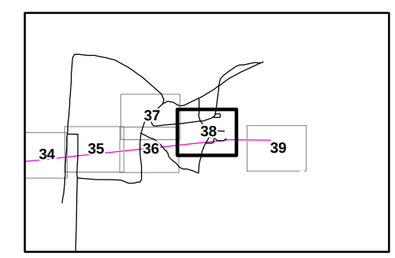
- 138 kV Pole
- Riser Pole
- 138 kV Overhead
- 138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage



SDGE A Sempra Energy utility

INSIGNIA ENVIRONMENTAL

N

1:1,200

0 100 200 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP.mxd

9/26/2013

Attachment A:
Section 2 Route Map 39 of 39

East County Substation Project

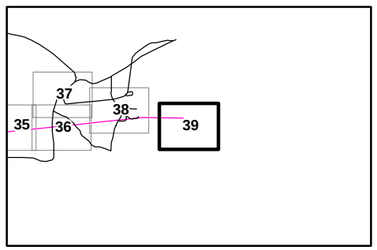
- 138 kV Pole
- Riser Pole
- 138 kV Overhead
- 138 kV Underground

Temporary

- Temporary Access Road Modifications (AR)
- Parking, No Impact (P)
- Gate (G)
- Grounding (GR)
- Construction Yard
- Guard Structure Site/Access (GS)
- Pull Site (PS)
- Staging Area
- Workspace

Permanent

- Access Road Modifications (AR)
- Grading
- Pad/New Access Road
- Rock Removal Workspace
- Vault
- Drainage



SDGE A Sempra Energy utility

INSIGNIA ENVIRONMENTAL

1:1,200

0 100 200 Feet

Z:\Projects\SDGE_ECO\MXDs\NTP_Requests\Section2_NTP.mxd

9/26/2013

ATTACHMENT B: PRE-CONSTRUCTION STATUS REPORT

Attachment B: Pre-Construction Status Report

Tuesday, October 01, 2013
8:41:27 AM

- -To Be Implemented During Construction
- -Pending OR To Be Implemented Immediately Prior to Construction
- -To Be Implemented Following Construction
- -Complete
- -Not Applicable

Report Criteria:
AGENCY: CPUC
SOURCE: MMCRP
TIMING: Design; Design and During; Design and Post; Pre; Pre and During; Pre and Post; Pre, During, and Post
LOCATION: 138 kV Overhead Transmission Line

Location: 138 kV Overhead Transmission Line

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Biological	BIO-01a	01	Confine all construction and construction-related activities to the minimum necessary area as defined by the final engineering plans	All construction areas, access to construction areas, and construction-related activities shall be strictly limited to the areas identified on the final engineering plans. The limits of the approved work space shall be delineated with stakes and/or flagging that shall be maintained throughout the construction period. An environmental monitor shall complete regular observations to ensure that all work is completed within the approved work limits, and in the event any work occurs beyond the approved limits, it shall be reported.	SDG&E submitted GIS data showing the limits of approved workspace to the CPUC on November 27, 2012. Updated GIS shapefiles are provided with this NTP request, and Project maps depicting limits of approved workspace are provided as Attachment A: Section 2 Route Map of this NTP request. The approved workspace will be delineated with stakes and/or flagging immediately prior to construction. Environmental Inspectors will be present during construction to ensure that all work is completed within the approved work limits.	Pre and During	To Be Implemented Immediately Prior to Const.
Biological	BIO-01b	01	Conduct contractor training for all construction staff	Prior to construction, all developer, contractor, and subcontractor personnel shall receive training regarding the appropriate work practices necessary to implement the mitigation measures and comply with environmental regulations, including plant and wildlife species avoidance, impact minimization, and best management practices. Sign-in sheets and hard hat decals shall be provided that document contractor training has been completed for construction personnel.	The Project's environmental awareness education program was approved by the CPUC on December 10, 2012 and by the BLM on December 17, 2012. The CPUC approved the Safe Worker Environmental Awareness Program (SWEAP) Truck Driver Training handout on January 8, 2013. Implementation of the environmental awareness education program for construction personnel began in February 2013, and the first set of completed sign-in sheets were submitted to the CPUC on February 7, 2013. SDG&E will continue to administer the environmental awareness education program to all construction personnel immediately prior to them commencing work on the Project and will continue to submit the completed sign-in sheets to the CPUC and BLM during construction as attachments to the Weekly Environmental Compliance Status Report.	Pre and During	To Be Implemented During Construction

Location: 138 kV Overhead Transmission Line

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Biological	BIO-01d	02	Restore all temporary construction areas pursuant to a Habitat Restoration Plan	A habitat restoration specialist will be designated and approved by the California Public Utilities Commission and Bureau of Land Management and will determine the most appropriate method of restoration.	The Habitat Restoration Specialist was approved by the CPUC and BLM on April 19, 2012.	Pre	Complete
Biological	BIO-01d	03	Restore all temporary construction areas pursuant to a Habitat Restoration Plan	Restoration techniques may include: hydroseeding, hand-seeding, imprinting, and soil and plant salvage. Any salvage and relocation of speies considered desert native plants shall be conducted in compliance with the California Desert Native Plant Act. The Habitat Restoration Plan shall include success criteria and monitoring specifications and shall be approved by the permitting agencies prior to construction of the project.	The Habitat Restoration Plan (HRP) was approved by the California Department of Fish and Wildlife (CDFW) on December 11, 2012; by the United States (U.S.) Fish and Wildlife Service (USFWS) on December 21, 2012; and by the CPUC on December 27, 2012. The Final HRP prepared for the BLM was submitted to the BLM on March 26, 2013. The HRP for the BLM was provided to the CPUC on March 26, 2013. The HRP was approved by the BLM on June 14, 2013. In accordance with Minor Project Refinement (MPR) #6, a revised HRP will be submitted to the CPUC. The HRP will be implemented during and following construction.	Pre and During	To Be Implemented During Construction
Biological	BIO-01e	01	Provide habitat compensation or restoration for permanent impacts to native vegetation communities	Permanent impact to all native vegetation communities shall be compensated through a combination habitat compensation and habitat restoration at a minimum of a 1:1 ratio or as required by the permitting agencies. Habitat compensation shall be accomplished through agency-approved land preservation or mitigation fee payment for the purpose of habitat compensation of lands supporting comparable habitats to those lands impacted by the ECO Substation Project. Land preservation or mitigation fee payment for habitat compensation must be completed within 18 months of permit issuance. Habitat restoration may be appropriate as compensation for permanent impacts provided that restoration is demonstrated to be feasible and the restoration effort is implemented pursuant to a Habitat Restoration Plan, which includes success criteria and monitoring specifications as described above for Mitigation Measure BIO-1d. The Habitat Restoration Plan shall be approved by the permitting agencies prior to construction of the project. All habitat compensation and restoration used as mitigation for the ECO Substation Project on public lands shall be located in areas designated for resource protection and management. All habitat compensation and restoration used as mitigation for the ECO Substation Project on private lands shall include long-term management and legal protection assurances.	The Final Habitat Mitigation and Monitoring Plan (HMMP) was approved by the USACE on November 21, 2012. The Compensatory Mitigation Plan (CMP) was submitted to the USFWS on November 26, 2012. The Final CMP was approved by the CDFW on December 11, 2012. The Final CMP was submitted to the CPUC on December 17, 2012. Draft HMPs and preliminary PARs were submitted to and approved by the CDFW for the Mariposa Hills and Big Galleta Wash Offsite Mitigation Properties and by the USFWS for Mariposa Hills Offsite Mitigation Property in early 2013. Off-site restoration will not be used as compensatory mitigation for permanent impacts. As a result, submittal of a HRP for off-site mitigation lands is not required. The Final HMMP and Final HMPs will be implemented during and following construction. A draft Conservation Easement was submitted to the USACE on September 17, 2013.	Pre, During, and Post	To Be Implemented During Construction
Biological	BIO-01g	01	Prepare and implement a Stormwater Pollution Prevention Plan	Prepare a Stormwater Pollution Prevention Plan pursuant to the specifications described in Mitigation Measure HYD-1.	The Linear SWPPP was uploaded to the Stormwater Multi-Application Reporting & Tracking System (SMARTS) on November 20, 2012 and submitted to the CPUC on November 27, 2012.	Pre and During	Complete

Location: 138 kV Overhead Transmission Line

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Biological	BIO-02a	01	Limit temporary and permanent impacts to jurisdictional features to the minimum necessary as defined by the final engineering plans	Obtain and implement the terms and conditions of agency permit(s) for unavoidable impacts to jurisdictional wetlands and waters. All construction areas, access to construction areas, and construction-related activities shall be strictly limited to the areas within the approved work limits identified on the final engineering plans. The limits of the approved work space shall be delineated with stakes and/or flagging that shall be maintained throughout the construction period. The project applicant shall obtain applicable permits and provide evidence of permit approval, which may include but not be limited to a Clean Water Act Section 404 Permit, a Clean Water Act Section 401 water quality certification, and a Section 1602 streambed alteration agreement with the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Game for impacts to jurisdictional features prior to project construction. The terms and conditions of these authorizations shall be implemented.	The Section 401 Water Quality Certification was issued on July 31, 2012 and was submitted to the CPUC on August 10, 2012. The USACE 404 Permit was issued on September 19, 2012 and submitted to the CPUC on September 19, 2012. The CDFG 1600 Streambed Alteration Agreement (SAA) was issued on October 30, 2012 and submitted to the CPUC on November 6, 2012. A summary of minor changes to the Project and requests to amend the USACE 404 Permit and SAA were sent to the USACE on September 23, 2013 and to the CDFW on September 24, 2013, respectively. The limits of the approved workspace will be delineated with stakes and/or flagging immediately prior to construction. The terms and conditions of the permits will be implemented during construction. Project maps showing the approved workspace limits with waters marked on them have been included as Attachment A: Section 2 Route Map of this NTP request.	Pre and During	To Be Implemented Immediately Prior to Const.
Biological	BIO-02b	01	Compensate for impacts to jurisdictional waters and wetlands	Temporary and permanent impacts to all jurisdictional resources shall be compensated through a combination habitat creation (i.e., establishment), enhancement, preservation, and/or and restoration at a minimum of a 1:1 ratio or as required by the permitting agencies. Any creation enhancement, preservation, and/or restoration effort shall be implemented pursuant to a Habitat Restoration Plan, which shall include success criteria and monitoring specifications and shall be approved by the permitting agencies prior to construction of the project. A habitat restoration specialist will be designated and approved by the permitting agencies and will determine the most appropriate method of restoration. Restoration techniques may include hydroseeding, hand-seeding, imprinting, and soil and plant salvage. Temporary impacts shall be restored sufficient to compensate for the impact to the satisfaction of the CPUC or BLM (depending on the location of the impact). If restoration of temporary impact areas is not possible to the satisfaction of the CPUC or BLM, the temporary impact shall be considered a permanent impact and compensated accordingly. All habitat creation and restoration used as mitigation for the Proposed ECO Substation Project on public lands shall be located in areas designated for resource protection and management. All habitat creation and restoration used as mitigation for the project on private lands shall include long-term management and legal protection assurances.	The Final CMP that included the HRP as an attachment was approved by the CDFW on December 11, 2012, and was submitted to the CPUC on December 17, 2012. Preliminary title reports documenting SDG&E's ownership of both properties were submitted to CDFW on December 3, 2012. SDG&E is currently working with the CDFW and USFWS to draft Habitat Management Plans (HMPs) for each property that include the terms approved in the HMMP, and to provide further details related to the preservation and management of vegetation communities and special-status plants and wildlife that occur or have the potential to occur on the properties. Long-term protection will be achieved through the placement of conservation easements over each of the properties once the HMPs are finalized. A description of the compensatory mitigation actions for temporary impacts is provided in the HRP. The Habitat Restoration Specialist that was approved by the CPUC and BLM on April 19, 2012 will ensure compliance with the HRP, including documenting the achievement of the prescribed success criteria. Off-site habitat restoration is not required for compensatory mitigation for permanent impacts; thus, a HRP will not be submitted for off-site mitigation.	Pre and During	To Be Implemented During Construction

Location: 138 kV Overhead Transmission Line

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Biological	BIO-02c	01	Where drainage crossings are unavoidable, construct access roads at right angles to drainages	Unless not possible due to existing landforms or site constraints, access roads shall be built perpendicular to drainages to minimize the impacts to these resources and prevent impacts along the length of jurisdictional features.	Project maps with waters marked have been included as Attachment A: Section 2 Route Map of this NTP request. The access roads to the 138 kV Overhead Transmission Line will be built in accordance with the Project maps and final grading plans during construction.	Pre and During	To Be Implemented During Construction
Biological	BIO-03a	01	Prepare and implement a Noxious Weeds and Invasive Species Control Plan	A Noxious Weeds and Invasive Species Control Plan shall be prepared and reviewed by the California Public Utilities Commission/Bureau of Land Management and applicable permitting agencies. On BLM lands, the plan shall be consistent with an Integrated Pest Management approach per the Vegetation Treatments on Bureau of Land Management Lands in 17 Western States Programmatic Environmental Report (2007).	The final Noxious Weeds and Invasive Species Control Plan was approved by the CPUC on November 29, 2012 and by the CDFW on January 10, 2013. The revised final Noxious Weeds and Invasive Species Control Plan was submitted to the CPUC on March 26, 2013. In accordance with the approval of MPR #6, a revised Noxious Weeds and Invasive Species Control Plan with an updated mapbook was submitted to the CPUC on September 30, 2013.	Pre	Complete
Biological	BIO-04a	02	Prepare and implement a Dust Control Plan	(j) Prepare and file with the San Diego Air Pollution Control District, Bureau of Land Management and California Public Utilities Commission a Dust Control Plan that describes how these measures would be implemented and monitored at all locations of the project. This plan shall be developed consistent with the requirements of Mitigation Measure AQ-1.	The CPUC approved the Dust Control Plan on October 12, 2012. The Dust Control Plan was submitted to the San Diego Air Pollution Control District on October 16, 2012.	Pre	Complete
Biological	BIO-05a	01	Install fencing or flagging around identified special-status plant species populations in the construction areas	Prior to the start of construction, a qualified biologist shall conduct focused surveys during the appropriate blooming period for special-status plant species for all construction areas. All of the special-status plant locations shall be recorded using a Global Positioning System (GPS), which will be used to site the avoidance fencing/flagging.	A qualified biologist was approved by the CPUC on April 12, 2012. Surveys for special-status plant species were conducted between April 19 and May 3, 2012 and August 28 and August 30, 2012. All locations were recorded using a GPS unit. The rare plant survey results were submitted to the CPUC on October 24, 2012. The 2012 Rare Plant Survey Report was submitted to the CPUC on November 13, 2012. The 2013 Rare Plant Survey Report was prepared in August and September 2013 following the late-season rare plant surveys, and will be submitted to the CPUC. All special-status plant species will be flagged immediately prior to construction.	Pre	To Be Implemented Immediately Prior to Const.
Biological	BIO-05a	02	Install fencing or flagging around identified special-status plant species populations in the construction areas	Special-status plant species shall be avoided to the maximum extent possible by all construction activities. The boundaries of all special-status plant species to be avoided shall be delineated in the field with clearly visible fencing or flagging. The fencing/flagging shall be maintained for the duration of project construction activities.	All special-status plant species slated for avoidance will be flagged immediately prior to construction and the flagging will be maintained during construction activities.	Pre and During	To Be Implemented Immediately Prior to Const.

Location: 138 kV Overhead Transmission Line

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Biological	BIO-05b	01	Implement special-status plant species compensation	Impacts to special-status plant species shall be maximally avoided. Where impacts to special-status plant species are unavoidable, the impact shall be quantified and compensated through off-site land preservation and/or plant salvage and relocation. Where off-site land preservation is biologically preferred, the land shall contain comparable special-status plant resources as the impacted lands and shall include long-term management and legal protection assurances to the satisfaction of the CPUC or BLM. Land preservation must be completed within 18 months of permit issuance. Where salvage and relocation is demonstrated to be feasible and biologically preferred, it shall be conducted pursuant to an agency-approved plan that details the methods for salvage, stockpiling, and replanting, as well as the characteristics of the receiver sites.	The CPUC confirmed that SDG&E has demonstrated assurance of willing sellers for mitigation lands on September 25, 2012. The Final CMP that included the HRP as an attachment was approved by the CDFW on December 11, 2012 and submitted to the CPUC on December 17, 2012. The CMP includes the details of the mitigation lands that have been secured by SDG&E. Further details of land preservation and long-term management are included in the Final HMMP that was approved by the USACE on November 21, 2012. The remaining requirements of this measure will be implemented during construction.	Pre and During	To Be Implemented During Construction
Biological	BIO-05b	02	Implement special-status plant species compensation	Any salvage and relocation plans shall be approved by the permitting agencies prior to project construction. Any salvage and relocation of species considered desert native plants shall be conducted in compliance with the California Desert Native Plant Act. Success criteria and monitoring shall also be included in the plan. If salvage and relocation is not possible to the satisfaction of the CPUC or BLM, off-site land preservation shall be required.	No salvage and relocation of special-status plant species is planned for the Project; therefore, this measure is not applicable.	Pre	N/A
Biological	BIO-07f	01	Obtain and implement the terms of agency permit(s) with jurisdiction federal or state listed species	If determined necessary, the applicant shall obtain a biological opinion through Section 7 consultation between the Bureau of Land Management and U.S. Fish and Wildlife Service for impacts to federally listed wildlife species and a Section 2081 permit (or consistency determination) from the California Department of Fish and Game for impacts to state listed wildlife species resulting from this project, if applicable.	The Biological Opinion was issued on September 1, 2011 and submitted to the CPUC on August 10, 2012. No take of state-listed species is anticipated; therefore, a 2081 permit is not required.	Pre	Complete
Biological	BIO-07g	01	Conduct protocol surveys for Quino checkerspot butterfly within 1 year prior to project construction activities in occupied habitat	SDG&E shall conduct pre-construction protocol surveys for Quino checkerspot butterfly within 1 year prior to construction activities, or as required by U.S. Fish and Wildlife Service, in any area known to support the species. Surveys shall be conducted by a qualified, permitted biologist in accordance with the most currently accepted protocol survey method. Results shall be reported to the U.S. Fish and Wildlife Service within 45 days of the completion of the survey. The surveys that were conducted in the spring of 2010 will be valid for construction in 2012 so long as construction commences before May 2012. If construction is not scheduled to commence before May 2012, SDG&E will contact the U.S. Fish and Wildlife Service to discuss whether an additional survey is warranted.	Quino checkerspot butterfly (QCB) surveys were completed in 2011. The QCB Survey Reports were submitted to the USFWS on August 24, 2011. The USFWS concurred on January 26, 2012 that no additional surveys would be required as long as construction commences prior to February 2013. The QCB Survey Reports were submitted to the CPUC on January 10, 2013. As construction did not commence prior to February 2013, SDG&E consulted with the USFWS and received guidance on February 20, 2013 in accordance with the Biological Opinion. The USFWS requested that a few additional locations be resurveyed. The 138 kV Overhead Transmission Line was not included in the areas identified by the USFWS to be resurveyed; therefore, this measure is complete for this location.	Pre and During	Complete

Location: 138 kV Overhead Transmission Line

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Biological	BIO-07h	01	Provide compensation for temporary and permanent impacts to Quino checkerspot butterfly habitat through conservation and/or restoration	Temporary and permanent impact to Quino checkerspot butterfly shall be compensated through a combination of habitat compensation and habitat restoration at a minimum of a 2:1 mitigation ratio for non-critical habitat and a minimum of a 3:1 mitigation ratio for critical habitat, or as required by the permitting agencies. Habitat compensation shall be accomplished through U.S. Fish and Wildlife Service-approved land preservation or mitigation fee payment for the purpose of habitat compensation of lands supporting Quino checkerspot butterfly. Land preservation or mitigation fee payment for habitat compensation must be completed within 18 months of permit issuance. Habitat restoration may be appropriate as habitat compensation provided that the restoration effort is demonstrated to be feasible and implemented pursuant to a Habitat Restoration Plan, which shall include success criteria and monitoring specifications and shall be approved by the permitting agencies prior to project construction. All habitat compensation and restoration used as mitigation for the Proposed Project on public lands shall be located in areas designated for resource protection and management. All habitat compensation and restoration used as mitigation for the Proposed Project on private lands shall include long-term management and legal protection assurances.	The USFWS verbally approved preservation of a portion of the Recht property to compensate for impacts to QCB on March 29, 2012. SDG&E purchased the Recht property in September 2012. The HMMP was submitted to the CPUC on August 20, 2012. The final CMP was submitted to the CPUC on December 17, 2012. The HRP is not applicable to this measure because no restoration will occur on the habitat mitigation lands.	Pre, During, and Post	Complete
Biological	BIO-07i	01	Final design of transmission towers and access roads through critical habitat shall maximally avoid host plants for Quino checkerspot butterfly	The final design of the ECO Project through Quino checkerspot butterfly habitat shall maximally avoid and minimize habitat resources used by the species. SDG&E shall explore alternate tower locations, reduced road widths, reduced vegetation maintenance, and other design modifications and obtain agency approval of the final design through this area.	QCB surveys were completed in 2011. The QCB Survey Reports were submitted to the USFWS on August 24, 2011. The USFWS concurred on January 26, 2012 that no additional surveys would be required as long as construction commences prior to February 2013. The QCB Survey Reports were submitted to the CPUC on January 10, 2013. As construction did not commence prior to February 2013, SDG&E consulted with the USFWS and received guidance on February 20, 2013 in accordance with the Biological Opinion. The USFWS requested that a few additional locations be resurveyed. The 138 kV Overhead Transmission Line was not included in the areas identified by the USFWS to be resurveyed. The USFWS has indicated approval of the final design of the 138 kV Overhead Transmission Line through QCB habitat with issuance of the Biological Opinion on September 1, 2011; therefore, this measure is complete for this location.	Design	Complete

Location: 138 kV Overhead Transmission Line

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Biological	BIO-07j	01	Conduct pre-construction nesting bird surveys and implement appropriate avoidance measures for identified nesting birds	If the project must occur during the avian breeding season (February 1st to August 31st, and as early as January 1 for some raptors), SDG&E should work with the California Department of Fish and Game (CDFG), Bureau of Land Management, and the U.S. Fish and Wildlife Service (USFWS) to prepare a Nesting Bird Management, Monitoring, and Reporting Plan (NBMMRP) to address avoidance of impacts to nesting birds. SDG&E will submit to the agencies the NBMMRP (see following for details) for review and approval prior to commencement of the project during the breeding season. The NBMMRP should include the following: 1. Nest Survey Protocols describing the nest survey methodologies 2. A Management Plan describing the methods to be used to avoid nesting birds and their nests, eggs, and chicks 3. A Monitoring and Reporting Plan detailing the information to be collected for incorporation into a regular Nest Monitoring Log (NML) with sufficient details to enable USFWS and CDFG to monitor SDG&E's compliance with Fish and Game Code Sections 3503, 3503.5, 3511, and 3513 4. A schedule for the submittal (usually weekly) of the NML 5. Standard buffer widths deemed adequate to avoid or minimize significant project-related edge effects (disturbance) on nesting birds and their nests, eggs, and chicks 6. A detailed explanation of how the buffer widths were determined 7. All measures SDG&E will implement to preclude birds from utilizing project-related structures (i.e., construction equipment, facilities, or materials) for nesting.	The Nesting Bird Management, Monitoring, and Reporting Plan (NBMMRP) was approved by the CDFW on January 10, 2013 and by the USFWS on January 16, 2013. The CDFW- and USFWS-approved NBMMRP was approved by the CPUC on January 22, 2013.	Pre and During	Complete

Location: 138 kV Overhead Transmission Line

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Biological	BIO-07j	02	Conduct pre-construction nesting bird surveys and implement appropriate avoidance measures for identified nesting birds	To determine presence of nesting birds that the project activities may affect, surveys should be conducted beyond the project area-300 feet for passerine birds and 500 feet for raptors. The survey protocols should include a detailed description of methodologies utilized by CDFG-approved avian biologists to search for nests and describe avian behaviors that indicate active nests. The protocols should include but are not limited to the size of project corridor being surveyed, method of search, and behavior that indicates active nests. Each nest identified in the project area should be included in the NML. The NMLs should be updated daily and submitted to the CDFG weekly. Since the purpose of the NMLs is to allow the CDFG to track compliance, the NMLs should include information necessary to allow comparison between nests protected by standard buffer widths recommended for the project (300 feet for passerine birds, 500 feet for raptors) and nests whose standard buffer width was reduced by encroachment of project-related activities. The NMLs should provide a summary of each nest identified, including the species, status of the nest, buffer information, and fledge or failure data. The NMLs will allow for tracking the success and failure of the buffers and will provide data on the adequacy of the buffers for certain species. SDG&E will rely on its avian biologists to determine the appropriate standard buffer widths for nests within the project corridor/footprint to employ based on the sensitivity levels of specific species or guilds of avian species. The determination of the standard buffer widths should be site- and species-/guild-specific and data-driven and not based on generalized assumptions regarding all nesting birds. The determination of the buffer widths should consider the following factors: a. Nesting chronologies b. Geographic location c. Existing ambient conditions (human activity within line of sight-cars, bikes, pedestrians, dogs, noise) d. Type and extent of disturbance (e.g., noise levels and quality- punctuated, continual, ground vibrations-blasting-related vibrations proximate to tern colonies are known to make the birds flush the nests) e. Visibility of disturbance f. Duration and timing of disturbance g. Influence of other environmental factors h. Species' site-specific level of habituation to the disturbance. Application of the standard buffer widths should avoid the potential for project-related nest abandonment and failure of fledging, and minimize any disturbance to the nesting behavior. If project activities cause or contribute to a bird being flushed from a nest, the buffer must be widened.	SDG&E provided the CPUC with documentation of CDFW approval of Larry Butcher, Dean DiTommaso, Jeffry Coward, and Abbie Alterman as avian biologists on January 8, 2013. Kevin Kilpatrick, Lauren Brudney, Lisa Eigner, and Shirley Innecken have also been approved by the CDFW as avian biologists. Nesting bird surveys began in January 2013 and were conducted in accordance with the NBMMRP prior to construction. The NBMMRP will be implemented during construction.	Pre and During	To Be Implemented During Construction
Biological	BIO-10a	01	Design all transmission towers and lines to conform with Avian Power Line Interaction Committee standards	The Proposed Project shall implement recommendations by the Avian Power Line Interaction Committee (2006), which will protect raptors and other birds from electrocution. These measures are sufficient to protect even the largest birds that may perch or roost on transmission lines or towers from electrocution.	The Avian Protection Plan (APP) was approved by the USFWS on January 3, 2013. The APP was approved by the CDFW on December 18, 2012. SDG&E submitted the Final APP with the CDFW and USFWS concurrence letters to the CPUC on January 16, 2013. The Revised Final APP was submitted to the USFWS on January 11, 2013. The Revised Final APP will be implemented during construction. SDG&E submitted transmission tower pole top configurations to the CPUC demonstrating compliance with Avian Power Line Interaction Committee criteria on June 13, 2013.	Design	Complete

Location: 138 kV Overhead Transmission Line

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Biological	BIO-10b	01	Develop and implement project-specific Avian Protection Plans	Develop and implement project-specific Avian Protection Plans. Develop and implement an Avian Protection Plan related to wire, transmission tower, and facilities impacts from electrocution and collision of bird species. An Avian Protection Plan shall be developed jointly with the U.S. Fish and Wildlife Service and California Department of Fish and Game and shall provide the framework necessary for implementing a program to reduce bird mortalities and document actions. The Avian Protection Plan shall include the following: corporate policy, training, permit compliance, construction design standards, nest management, avian reporting system, risk assessment methodology, mortality reduction measures, avian enhancement options, quality control, public awareness, and key resources.	The Avian Protection Plan (APP) was approved by the USFWS on January 3, 2013. The APP was approved by the CDFW on December 18, 2012. SDG&E submitted the Final APP with CDFG and USFWS concurrence letters to the CPUC on January 16, 2013. The Revised Final APP was submitted to the USFWS on January 11, 2013. The Revised Final APP will be implemented during construction.	Pre, During, and Post	To Be Implemented During Construction
Biological	ECO-BIO-08	01	Provide environmental training to project personnel	Prior to construction, all SDG&E, contractor, and subcontractor Project personnel will receive training regarding the appropriate work practices necessary to effectively implement the APMs and to comply with the applicable environmental laws and regulations, including appropriate wildlife avoidance; impact minimization procedures; the importance of these resources, and the purpose and necessity of protecting them; and methods for protecting sensitive ecological resources. The training will include BMPs to reduce the potential for erosion and sedimentation during construction of the Project.	The intent and requirements of ECO-BIO-08 will be satisfied through the implementation of the environmental awareness education program for all construction staff prior to construction, which is required by BIO-01b. Implementation of the environmental awareness education program for construction personnel began in February 2013, and the first set of completed sign-in sheets were submitted to the CPUC on February 7, 2013. SDG&E will continue to administer the environmental awareness education program to all construction personnel immediately prior to them commencing work on the Project and will continue to submit the completed sign-in sheets to the CPUC and BLM during construction as attachments to the Weekly Environmental Compliance Status Report.	Pre and During	To Be Implemented During Construction
Biological	ECO-BIO-09	01	Avoid impacts during surveys	Survey personnel will keep survey vehicles on existing roads.	Survey crews have been instructed to stay on existing roads during survey activities.	Pre, During, and Post	To Be Implemented During Construction
Biological	ECO-BIO-09	02	Avoid impacts during surveys	During Project surveying activities, brush clearing for footpaths, line-of-sight cutting, and land surveying panel point placement in sensitive habitat will require prior approval from the Project biological monitor. Hiking off roads or paths for survey data collection will be allowed year-round as long as all of the other applicable APMs are met.	A biological monitor will be present during, or provide prior approval for, brush clearing for footpaths, line-of-sight cutting, and land surveying panel point placement in sensitive habitat in accordance with this measure.	Pre, During, and Post	To Be Implemented During Construction
Biological	ECO-BIO-20	01	Construct escape ramps within retention basins	Permanent retention basins will be constructed with escape ramps along two sides of the pond to allow entrapped wildlife to escape. The slope of the ramps will not exceed a two to one ratio and will be constructed of non-slippery material, or as specified by the biological monitor.	This measure is not applicable as no permanent retention basins will be constructed for the 138 kV Overhead Transmission Line.	Pre and During	N/A
Visual	ECO-AES-01	01	Reduce potential visual contrast with the desert landscape setting	To reduce potential visual contrast and integrate the ECO Substation's appearance with the desert landscape setting, when project construction has been completed, all disturbed terrain at the ECO Substation site will be restored through recontouring and revegetation in accordance with the Landscaping Plan included as Appendix 5: Landscape Concept Plans.	This measure only pertains to the ECO Substation; therefore, it is not applicable to the 138 kV Overhead Transmission Line.	Pre and Post	N/A

Location: 138 kV Overhead Transmission Line

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Visual	ECO-AES-02	01	All disturbed terrain restored	When project construction has been completed, all disturbed terrain at the Boulevard Substation site will be restored through recontouring, revegetation, and landscaping in accordance with the Boulevard Substation Landscape Concept Plan included as Appendix 5: Landscape Concept Plans. To provide screening and thus reduce potential project visibility, the Boulevard Substation Landscape Concept Plan includes larger shrubs and trees that will partially screen views of the substation from Old Highway 80 and from adjacent residential properties.	This measure only pertains to disturbed terrain at the Boulevard Substation site; therefore, this measure is not applicable to the 138 kV Overhead Transmission Line.	Pre and Post	N/A
Visual	ECO-AES-03	01	Reduce the project's potential visibility from Old Highway 80	To reduce the project's potential visibility from Old Highway 80, the underground portion of the new 138 kV transmission line will be extended an additional distance of approximately 600 feet to the south, and the steel cable riser pole will be relocated to replace structure SP-2.	This measure only pertains to the underground portion of the transmission line; therefore, it is not applicable to the 138 kV Overhead Transmission Line.	Pre and During	N/A
Visual	VIS-01a	01	Reduce impacts at scenic highway and trail crossings	At highway and trail crossings, structures shall be placed at the maximum feasible distance from the crossing to reduce visual impacts as long as other significant resources are not negatively affected.	San Diego County confirmed on October 18, 2012 that no official trails or recreation areas are located in the Project area; therefore, this measure is not applicable.	Design and During	N/A
Visual	VIS-01b	01	Reduce impacts at scenic view areas	In scenic view areas (the Jewel Valley Trail and the Jewel Valley Road Pathway) transmission line structures would be placed to avoid sensitive features and/or allow conductors to clearly span the features, within limits of standard design where feasible.	San Diego County confirmed on October 18, 2012 that no official trails or recreation areas are located in the Project area; therefore, this measure is not applicable.	Design and During	N/A
Visual	VIS-03a	01	Reduce visibility of construction activities and equipment	If visible from nearby roads, residences, public gathering areas, or recreational areas, facilities, or trails, stationary construction sites and staging areas and fly yards shall be visually screened using temporary screening fencing. Fencing will be of an appropriate design and color for each specific location. Where practical, construction staging and storage will be screened with opaque fencing from close-range residential views. Additionally, construction in areas visible from recreation facilities and areas during holidays and periods of heavy recreational use shall be avoided. SDG&E shall submit final construction plans demonstrating compliance with this measure to the CPUC for review and approval at least 60 days before the start of construction.	No stataionary construction sites, staging areas, or fly yards will be constructed as part of the 138 kV Overhead Transmission Line; therefore, this measure is not applicable.	Pre, During, and Post	N/A
Visual	VIS-03b	01	Reduce construction night-lighting impacts	SDG&E shall design and install all lighting at construction and storage yards and at staging areas and fly yards such that illumination of the project facilities, vicinity, and nighttime sky is minimized. The Construction Lighting Mitigation Plan shall be reviewed for consistency with the County of San Diego Light Pollution Code (Section 59.100 et. al) and Sections 6322 and 6322 of the Zoning Ordinance to ensure outdoor light fixtures emitting light into the night sky do not result in a detrimental effect on astronomical research and to ensure reflected glare and light trespass is minimized. SDG&E shall not order any exterior lighting fixtures or components until the Construction Lighting Mitigation Plan is approved by the CPUC and BLM. The Plan shall include but is not necessarily limited to the following: · Lighting shall be designed so that exterior light fixtures are hooded, with lights directed downward or toward the area to be illuminated, and so that backscatter to the nighttime sky is minimized. The design of the lighting shall be such that the luminescence or light sources are shielded to prevent light trespass outside the project boundary; · All lighting shall be of minimum necessary brightness consistent with worker safety; and · High illumination areas not occupied on a continuous basis shall have switches or motion detectors to light the area only when occupied.	No construction storage, staging, or fly yards will be constructed as part of the 138 kV Overhead Transmission Line; therefore, this measure is not applicable.	Pre and During	N/A
Visual	VIS-03d	01	Reduce in-line views of land scars	Construct access or spur roads at appropriate angles from the originating primary travel facilities to minimize extended in-line views of newly graded terrain, when feasible. Contour grading should be used where feasible to better blend graded surfaces with existing terrain. SDG&E shall submit final construction plans demonstrating compliance with this measure to the CPUC and BLM for review and approval at least 60 days prior to the start of construction.	The final engineering plans for the 138 kV Overhead Transmission Line depicting access roads were submitted to the CPUC on September 17, 2013.	Pre and During	Complete

Location: 138 kV Overhead Transmission Line

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Visual	VIS-03e	01	Reduce visual contrast from unnatural vegetation lines	In those areas where views of land scars are unavoidable, the boundaries of disturbed areas shall be aggressively revegetated to create a less distinct and more natural-appearing line to reduce visual contrast. Furthermore, all graded roads and areas not required for ongoing operation, maintenance, or access shall be returned to preconstruction conditions. In those cases where potential public access is opened by construction routes, SDG&E shall create barriers or fences to prevent public access and shall patrol construction routes to prevent vandalized access and litter cleanup until all areas where vegetation was removed are returned to pre-project state. SDG&E shall submit final construction and restoration plans demonstrating compliance with this measure to the CPUC and BLM for review and approval at least 60 days before the start of construction.	The plan for revegetation of temporarily disturbed areas is described in the HRP. Refer to BIO-01d regarding the status of agency review and approval of the HRP. The HRP will be implemented during and following construction. Project maps to the CPUC depicting temporary workspace, which will be revegetated in accordance with the HRP, have been included as Attachment A: Section 2 Route Map of this NTP request.	Pre, During, and Post	To Be Implemented During Construction
Visual	VIS-03f	01	Minimize vegetation removal	Only the minimum amount of vegetation necessary for the construction of structures and facilities will be removed. Topsoil located in areas to be restored shall be conserved during excavation and reused as cover on disturbed areas to facilitate re-growth of vegetation. Topsoil located in developed or disturbed areas is excluded from this measure.	The plan for revegetation of temporarily disturbed areas is described in the HRP. Refer to BIO-01d regarding the status of agency review and approval of the HRP. The HRP will be implemented during and following construction.	Pre and During	To Be Implemented During Construction
Visual	VIS-03g	01	Reduce visual contrast associated with substation and ancillary facilities	SDG&E shall submit to the CPUC a Surface Treatment Plan describing the application of colors and textures to all new facility structure buildings, walls, fences, and components comprising all ancillary facilities including substations. The Surface Treatment Plan must reduce glare and minimize visual intrusion and contrast by blending the facilities with the landscape. The Treatment Plan shall be submitted to the CPUC for approval at least 90 days before (a) ordering the first structures that are to be color treated during manufacture or (b) construction of any of the ancillary facility components, whichever comes first. If the CPUC notifies SDG&E that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, SDG&E shall prepare and submit for review and approval a revised Plan. The Surface Treatment Plan shall include: · Specification and 11 x 17-inch color simulations at life-size scale of the treatment proposed for use on project structures, including structures treated during manufacture · A list of each major project structure, building, tower and/or pole, and fencing specifying the color{s) and finish proposed for each (colors must be identified by name and by vendor brand or a universal designation) · Two sets of brochures and/or color chips for each proposed color · A detailed schedule for completion of the treatment · Procedures to ensure proper treatment maintenance for the life of the project. SDG&E shall not specify to the vendors the treatment of any buildings or structures treated during manufacture or perform the final treatment on any buildings or structures treated on site, until SDG&E receives notification of approval of the Surface Treatment Plan by the CPUC. Within 30 days following the start of commercial operation, SDG&E shall notify the CPUC that all buildings and structures are ready for inspection.	The CPUC approved the Surface Treatment Plan on December 7, 2012. In accordance with MPR #6, the Surface Treatment Plan is being amended to reflect the Project's final design. The Amended Surface Treatment Plan will be submitted to the CPUC prior to erecting transmission poles as part of the 138 kV Overhead Transmission Line. The Surface Treatment Plan will be implemented during and following construction.	Pre, During, and Post	To Be Implemented During Construction

Location: 138 kV Overhead Transmission Line

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Visual	VIS-03h	01	Screen substations and ancillary facilities	SDG&E shall provide a Final Screening/Landscape Plan for screening vegetation, walls, and fences that reduces visibility of ancillary facilities and helps the facility blend in with the landscape. Similar to the use of berms in the Conceptual Landscape Plans prepared for the PEA, the use of berms to facilitate project screening may also be incorporated into the Final Plan. SDG&E shall submit the Plan to the CPUC for review and approval at least 90 days before installing the landscape screening. If the CPUC notifies SDG&E that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, SDG&E shall prepare and submit for review and approval a revised Plan. The plan shall include but not necessarily be limited to: · An 11 x 17-inch color simulation of the proposed landscaping at 5 years · A plan view to scale depicting the project and the location of screening elements · A detailed list of any plants to be used, their size and age at planting, the expected time to maturity, and the expected height at 5 years and at maturity · SDG&E shall complete installation of the screening/landscape plan before the start of project operation · SDG&E shall notify the CPUC within 7 days after completing installation of the screening/landscape plan that the screening components are ready for inspection.	The Boulevard Substation Landscape Screening Plan is only applicable to the Boulevard Substation and the ECO Substation per the MMCRP; therefore, this measure is not applicable to the 138 kV Overhead Transmission Line.	Pre and Post	N/A
Visual	VIS-03i	01	Reduce potential visual contrast of transmission structures	SDG&E will use dulled-metal-finish transmission structures and non-specular conductors.	Purchase orders demonstrating that dulled-metal-finish transmission structures and non-specular conductors will be installed have been included as Attachment D: Conductor Purchase Orders in this NTP request.	Pre and During	Complete
Visual	VIS-03j	01	Reduce potential transmission conductor visibility and visual contrast	The following design measures shall be applied to all new structure locations, conductors, and re-conductored spans to reduce the degree of visual contrast caused by the new facilities: · All new conductors and re-conductored spans to be non-specular to reduce conductor visibility and visual contrast. · Where revisions would not conflict with existing design considerations to avoid sensitive resources (including hydrological, cultural, and biological resources), no new access roads shall be constructed such that they directly approach existing or proposed towers in a straight line from sensitive viewing locations immediately downhill of the structures.	The CPUC approved the Surface Treatment Plan on December 7, 2012. In accordance with MPR #6, the Surface Treatment Plan is being amended to reflect the Project's final design. The Amended Surface Treatment Plan will be submitted to the CPUC prior to erecting transmission poles as part of the 138 kV Overhead Transmission Line. Attachment C: Residential Locations Map of this NTP include Project maps demonstrating that new access roads constructed directly approaching existing or proposed poles in a straight line from sensitive viewing locations have been minimized.	Pre and During	To Be Implemented During Construction
Visual	VIS-03k	01	Reduce potential visual contrast from transmission structure spacing	Where the line parallels existing transmission lines, the spacing of structures shall match the existing transmission structures, where feasible, to minimize visual effects.	Project maps depicting spacing of transmission line structures have been included as Attachment C: Residential Locations Map of this NTP request. Transmission structures will be constructed in accordance with the Project maps during construction.	Pre and During	To Be Implemented During Construction

Location: 138 kV Overhead Transmission Line

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Visual	VIS-03l	01	Reduce potential view blockage and visual contrasts of structures	Transmission line structures will not be installed directly in front of residences or in direct line-of-sight from a residence, where feasible. SDG&E will consult with affected property owners on structure siting to reduce land use and visual impacts.	Project maps depicting pole locations in relation to residences have been included as Attachment C: Residential Locations Map of this NTP request. Documentation of coordination with landowners will be submitted as an attachment to the LU-2 Letter Report to the CPUC prior to the start of construction of the 138 kV Overhead Transmission Line.	Pre	Pending
Visual	VIS-03m	01	Reduce visual impacts resulting from native tree removal	In the event that ornamental or native trees within the project area will be removed due to project design and grading, SDG&E shall prepare a Tree Replacement Plan to be submitted with the Screening/Landscape Plan. The Tree Replacement Plan shall include but is not limited to the following: · Tree Removal Locations: Indicate the size, type, and location of each tree (additional items, such as a tree survey by a professional engineer or licensed land survey, may be required.) · Assessment of the health and structural conditions, soils, tree size (trunk diameter, basal diameter, height, canopy spread), pest and disease presence, and accessibility of native oak trees to be removed due to project design and grading in order to determine whether existing trees can be transplanted outside the project footprint post-construction. If the assessment determines native oak trees can be transplanted, the oaks would be augmented with additional oak plantings in case the larger trees decline and are lost as a result of the relocation process. If native oak trees cannot be transplanted, the Tree Replacement Plan shall indicate the size, type, and location of each proposed replacement tree (additional items, such as a tree survey by a professional engineer or licensed land survey, may be required). · Photos of the site and/or trees to be removed. · Oak replacement plan focusing on oak tree planting with smaller container trees at higher numbers, recommended at least 5:1 with 15-gallon size trees. The Tree Replacement Plan must minimize mature tree loss to the degree feasible. The Tree Replacement Plan shall be submitted to the CPUC for approval at least 90 days prior to planned tree removal. If the CPUC notifies SDG&E that revisions to the Plan are needed before the Plan can be approved, within 30 days of receiving that notification, the SDG&E shall prepare and submit the revised Tree Replacement Plan for review and approval.	According to the MMCRP, this measure only applies to the Boulevard Substation site; therefore, this measure is not applicable to the 138 kV Transmission Line.	Pre and Post	N/A
Visual	VIS-04a	01	Reduce long-term night-lighting impacts from substations and ancillary facilities	SDG&E shall design and install all permanent lighting such that light bulbs and reflectors are not visible from public viewing areas; lighting does not cause reflected glare; and illumination of the project facilities, vicinity, and nighttime sky is minimized. The Lighting Mitigation Plan shall be reviewed for consistency with the County of San Diego Light Pollution Code (Section 59.100 et. al) and Sections 6322 and 6322 of the Zoning Ordinance to ensure outdoor light fixtures emitting light into the night sky do not result in a detrimental effect on astronomical research and to ensure reflected glare and light trespass is minimized. SDG&E shall submit a Lighting Mitigation Plan to the CPUC for review and approval at least 90 days before ordering any permanent exterior lighting fixtures or components. SDG&E shall not order any exterior lighting fixtures or components until the Lighting Mitigation Plan is approved by the CPUC. The Plan shall include but is not necessarily limited to the following: · Lighting shall be designed so exterior light fixtures are hooded, with lights directed downward or toward the area to be illuminated, and so that backscatter to the nighttime sky is minimized. The design of the lighting shall be such that the luminescence or light sources are shielded to prevent light trespass outside the project boundary. · All lighting shall be of minimum necessary brightness consistent with worker safety. · High illumination areas not occupied on a continuous basis shall have switches or motion detectors to light the area only when occupied.	This measure applies to substations and ancillary facilities. No permanent lighting will be installed as part of the 138 kV Overhead Transmission Line; therefore, this measure is not applicable.	Pre, During, and Post	N/A

Location: 138 kV Overhead Transmission Line

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Land	LU-01a	01	Prepare Construction Notification Plan	Forty-five days prior to construction, SDG&E shall prepare and submit a Construction Notification Plan to the BLM and CPUC for approval. The Plan shall identify the procedures that will be used to inform property owners of the location and duration of construction, identify approvals that are needed prior to posting or publication of construction notices, and include text of proposed public notices and advertisements. The Plan shall address at a minimum two of the following components: · Public notice mailer. A public notice mailer shall be prepared and mailed no less than 15 days prior to construction. The notice shall identify construction activities that would restrict, block, remove parking, or require a detour to access existing residential properties. The notice shall state the type of construction activities that will be conducted and the location and duration of construction, including all helicopter activities. SDG&E shall mail the notice to all residents or property owners within 1,000 feet of project components. If construction delays of more than 7 days occur, an additional notice shall be prepared and distributed. · Newspaper advertisements. Fifteen days prior to construction within a route segment, notices shall be placed in local newspapers and bulletins, including Spanish language newspapers and bulletins. The notice shall state when and where construction will occur and provide information about the public liaison person and hotline. If construction is delayed for more than 7 days, an additional round of newspaper notices shall be placed to discuss the status and schedule of construction. · Public venue notices. Thirty days prior to construction, notice of construction shall be posted at public venues such as libraries, community notification boards, post offices, rest stops, community centers, and other public venues to inform affected residents of the purpose and schedule of construction activities. · Public liaison person and toll-free information hotline. SDG&E shall identify and provide a public liaison person before and during construction to respond to concerns of neighboring property owners about noise, dust, and other construction disturbances. Procedures for reaching the public liaison officer via telephone or in person shall be included in notices distributed to the public. SDG&E shall also establish a toll-free telephone number for receiving questions or complaints during construction and shall develop procedures for responding to callers. Procedures for handling and responding to calls shall be addressed in the Construction Notification Plan.	The Construction Notification Plan was approved by the CPUC on October 31, 2012. The BLM indicated on August 29, 2012 that it does not need to review the Construction Notification Plan prior to construction. The CPUC approved a broad public notice mailer on February 26, 2013. The broad public notice mailer for the entire Project was distributed on June 5, 2013. Evidence of mailing was submitted to the CPUC on June 12, 2013. SDG&E is providing the CPUC with a weekly public inquiry log in accordance with the Construction Notification Plan.	Pre and During	To Be Implemented During Construction
Land	LU-01b	01	Notify property owners and provide access	To facilitate access to properties obstructed by construction activities, SDG&E shall notify property owners and tenants at least 24 hours in advance of construction activities and shall provide alternative access if required.	SDG&E will notify property owners and tenants if access to properties will be obstructed.	Pre and During	To Be Implemented During Construction
Land	LU-02	01	Revise project elements to minimize land use conflicts	At least 90 days prior to completing final transmission line design for the approved route, SDG&E shall notify landowners of parcels through which the alignment would pass regarding the specific location of the ROW, individual towers, staging areas, access roads, or other facilities associated with the project that would occur on the subject property. The notified parties shall be provided at least 30 days in which to identify conflicts with any planned development on the subject property and to work with SDG&E to identify potential reroutes of the alignment that would be mutually acceptable to SDG&E and the landowner. Property owners whose land may be divided into potentially uneconomic parcels shall be afforded this same opportunity, even if development plans have not been established. SDG&E shall endeavor to accommodate these reroutes only to the extent that they are reasonable and feasible, do not create a substantial increase in cost, and do not create adverse impacts to resources or to other properties that would be greater in magnitude than impacts that would occur from construction and operation of the alignment as originally planned. SDG&E shall provide a written report to the CPUC/BLM providing evidence of the notice to landowners and copies of any responses to the notice within 30 days of the notice closing date for responses. SDG&E shall also identify in the documentation submitted to the CPUC and BLM whether reroutes recommended by the landowner or SDG&E can be accommodated. Where they cannot be accommodated, the reasons shall be provided. SDG&E shall provide information sufficient for the CPUC and BLM to determine that the reroute creates no more adverse impact than the originally planned alignment location. SDG&E shall include environmental information consistent with that required for a variance. Where a reroute is proposed, the CPUC or BLM will review and agree to accept or reject individual reroutes. The CPUC or BLM may also recommend compromise reroutes for any of the parcels for which responses were provided in a timely fashion.	A letter report indicating contents of the notices to landowners, distribution of the notices, and any responses will be submitted to the CPUC prior to the start of construction of the 138 kV Overhead Transmission Line.	Design	Pending

Location: 138 kV Overhead Transmission Line

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Wilderness and Recreation	WR-01	01	Provide notice for access restrictions or anticipated closures to wilderness and recreation areas	SDG&E shall coordinate with the County of San Diego to ensure that proper signage is posted in advance for any access restriction and/or anticipated closures of wilderness and recreation areas (including trails and pathways) so that recreational users may plan accordingly. Signage shall be posted 30 days prior to construction at public venues such as rest stops, resource management offices, and along access routes to known recreational destinations that would be restricted, blocked, or detoured. Notices shall provide information on alternative recreation areas that may be used during the closure of these facilities.		Pre	N/A
Cultural and Paleontological	CUL-01a	01	Develop and implement a Historic Properties Treatment Plan-Cultural Resources Management Plan	A Historic Properties Treatment Plan-Cultural Resources Management Plan (HPTP-CRMP) shall be prepared to avoid or mitigate impacts for significant cultural resources pursuant to Section 106 Guidelines. An MOA shall be developed among all federal, state, and local agencies to implement the HPTP-CRMP. As part of the HPTP-CRMP, recorded cultural resources that can be avoided shall be listed and demarcated during construction as Environmentally Sensitive Areas (ESAs). All recommended NRHP- and/or CRHR-eligible resources that would not be affected by direct impacts, but are within 100 feet of direct impact areas, shall be designated as ESAs. Protective fencing or other markers shall be erected and maintained on SDG&E-owned property, easements, or ROW to protect ESAs from inadvertent trespass for the duration of construction in the vicinity (the ESA fencing should demarcate the limits of the construction areas and where people have to stay within the easement, ROW, or SDG&E-owned property). An archaeologist shall monitor during ground-disturbing activities at all cultural resource ESAs. The HPTP-CRMP shall also define any additional areas that are considered to be of high sensitivity for discovery of buried NRHP-eligible historic properties and CRHR-eligible historic resources, including burials, cremations, or sacred features. These areas of high sensitivity shall also be monitored by qualified archaeologists during construction.	The Research Design for Archaeological Data Recovery at CA-SDI-7074 (HPTP) was approved by the BLM on August 10, 2012. The MOA was signed by all signatory parties on August 10, 2012. The final HPTP was incorporated into the final MOA, which was provided to the CPUC in August 2012. The CRMP was approved by the BLM on August 10, 2012. The CRMP was submitted to the CPUC on September 24, 2012. Protective fencing for ESAs will be installed immediately prior to construction. Monitoring will occur during construction.	Pre and During	To Be Implemented Immediately Prior to Const.
Cultural and Paleontological	CUL-01a	02	Develop and implement a Historic Properties Treatment Plan-Cultural Resources Management Plan	If recommended NRHP-eligible historic properties and CRHR-eligible historic resources are not avoidable, the HPTP-CRMP shall provide a process for evaluating NRHP and CRHR eligibility, consulting with Native Americans about site treatment, working with engineers to avoid resources; suggest various options for reducing adverse effects; and outline a data recovery mitigation plan that would include research design, field sampling, laboratory analysis, reporting, curation, and dissemination of results. Other treatment measures to resolve adverse effects could include but are not limited to historical documentation, photography, collection and publishing of oral histories, field work to gather information for research purposes or some form of public awareness or interpretation. A description of alternative treatments to resolve adverse effects other than data recovery excavations could also include: · Relocation of construction component to portions of historic properties that do not contribute to the qualities that make the resource eligible for the NRHP and CRHR; · Deeding cemetery of other sensitive areas outside of the substation property and related facilities into open space in perpetuity and providing necessary long-term protection measures; · Public interpretation including the preparation of a public version of the cultural resources studies and/or education materials for local schools; · Providing Native American tribes future access to traditional and cultural areas on the Project site, but outside of the substation property and related facilities, after completion of Project construction; and · SDG&E financial support of existing cultural centers for the preparation of interpretive displays.	Refer to CUL-01a, Task 1 regarding the status of the HPTP and CRMP. The HPTP and CRMP will be implemented during construction.	Pre and During	To Be Implemented During Construction
Cultural and Paleontological	CUL-01a	03	Develop and implement a Historic Properties Treatment Plan-Cultural Resources Management Plan	The HPTP-CRMP shall include provisions for reporting and curation of artifacts and data at a facility that is approved by the agency. The applicant shall attempt to gain permission for artifacts from privately held land to be curated with the other project collections. As part of the HPTP-CRMP, processing of all collected cultural remains shall be described. All artifacts shall be analyzed to identify function and chronology as they relate to the history of the area. Faunal material shall be identified as to species.	Refer to CUL-01a, Task 1 regarding the status of the HPTP and CRMP. The HPTP and CRMP, which include provisions for reporting and curation of artifacts in the event that any are discovered, will be implemented during construction.	Pre and During	To Be Implemented During Construction

Location: 138 kV Overhead Transmission Line

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Cultural and Paleontological	CUL-01b	01	Avoid and protect significant resources	SDG&E shall design and implement a long-term management plan to protect NRHP-eligible, CRHR-eligible sites or sites treated as eligible for project management purposes from direct impacts of project operation and maintenance and from indirect impacts (such as erosion and access) that could result from the presence of the project. The plan shall be developed in consultation with the BLM and other consulting parties to design measures that shall be effective against project maintenance impacts, such as vegetation clearing and road and tower maintenance, and project-related vehicular impacts. The plan shall also include a context for understanding the cultural resources within the ROW and describe how protective measures will be undertaken for the cultural resources within the ROW or main project area that may experience operational and access impacts as a result of the project. Measures considered shall include demarcation of Environmentally Sensitive Areas (ESA's) during any subsequent project construction maintenance activities for all historic properties within 50 feet of direct impact areas, permanent restrictive fencing or gates, permanent access road closures, signage, stabilization of potential erosive areas, site capping, site patrols, and interpretive/educational programs, or other measures that will be effective for protecting the resources. The plan shall be property specific and shall include provisions for monitoring and reporting its effectiveness and for addressing inadequacies or failures that result in damage to resources.	The BLM confirmed that the Long-Term Management Plan is not a pre-construction requirement on August 24, 2012. The CPUC confirmed that this plan is not a pre-construction requirement on August 21, 2012. SDG&E will submit the Long-Term Management Plan to the CPUC once it is complete.	Pre, During, and Post	To Be Implemented During Construction
Cultural and Paleontological	CUL-01c	01	Training for contractor	All construction personnel shall be trained regarding the recognition of possible buried cultural remains and protection of all cultural resources, including prehistoric and historic resources during construction, prior to the initiation of construction or ground-disturbing activities. SDG&E shall complete training for all construction personnel and retain documentation showing when training of personnel was completed. Training shall inform all construction personnel of the procedures to be followed upon the discovery of archaeological materials, including Native American burials. Training shall inform all construction personnel that shall be avoided, and that travel and construction activity shall be confined to designated roads and areas. All personnel shall be instructed that unauthorized collection or disturbance of artifacts or other cultural materials on or off the ROW by SDG&E, its representatives, or employees shall not be allowed. Violators shall be subject to prosecution under the appropriate State and federal laws, and violations shall be grounds for removal from the project. Unauthorized resource collection or disturbance may constitute grounds for the issuance of a stop work order. The following issues shall be addressed in training or in preparation for construction: · All construction contracts shall require construction personnel to attend training so they are aware of the potential for inadvertently exposing buried archaeological deposits, their responsibility to avoid and protect all cultural resources, and the penalties for collection, vandalism, or inadvertent destruction of cultural resources. · SDG&E shall provide training for supervisory construction personnel describing the potential for exposing cultural resources and procedures and notifications required in the event of discoveries by project personnel or archaeological monitors. Supervisors shall also be briefed on the consequences of intentional or inadvertent damage to cultural resources. Supervisory personnel shall enforce restrictions on collection or disturbance of artifacts or other cultural resources	SDG&E coordinated with the BLM regarding the cultural awareness video and materials on November 13, 2012. SDG&E provided the cultural awareness video to the BLM on December 10, 2012. The brochure, wallet card, cultural awareness video, sign-in sheet, and hard-hat decal were approved by the CPUC on December 10, 2012 and by the BLM on December 17, 2012. The CPUC approved the SWEAP Truck Driver Training handout on January 8, 2013. Implementation of the environmental awareness education program for construction personnel began in February 2013, and the first set of completed sign-in sheets were submitted to the CPUC on February 7, 2013. SDG&E will continue to administer the environmental awareness education program to all construction personnel immediately prior to them commencing work on the Project and will continue to submit the completed sign-in sheets to the CPUC and BLM during construction as attachments to the Weekly Environmental Compliance Status Report.	Pre and During	To Be Implemented During Construction

Location: 138 kV Overhead Transmission Line

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Cultural and Paleontological	CUL-01d	01	Construction monitoring	Prior to issuance of grading permit(s), the SDG&E shall retain a qualified archaeologist, in accordance with the Secretary of the Interior's Standards and Guidelines (Secretary's Standards) (36 CFR 61), and Native American observer to monitor ground-disturbing activities in culturally sensitive areas in an effort to identify any unknown resources. A qualified archaeologist shall attend preconstruction meetings, as needed, to make comments and/or suggestions concerning the monitoring program and to discuss excavation plans with the excavation contractor. The requirements for archaeological monitoring shall be noted on the construction plans.	SDG&E has contracted with ASM Affiliates under Insignia Environmental to provide qualified Tribal Cultural Consultants and Archaeological Monitors for the Project. SDG&E held a pre-construction orientation meeting with the BLM, Tribal Cultural Consultants, and Archaeological Monitors on December 13, 2012. A qualified Archaeological Monitor and Tribal Cultural Consultant will be present to monitor ground-disturbing activities in culturally sensitive areas during construction. Archaeological monitoring will be required for ground-disturbing activities conducted within 100 feet of ESAs that have been established to protect cultural resources. Final engineering plans for the 138 kV Overhead Transmission Line that note the requirements for archaeological monitoring were submitted to the CPUC on September 17, 2013.	Pre	To Be Implemented During Construction
Cultural and Paleontological	CUL-01e	01	Discovery of unknown resources	In the event that previously unknown cultural resources are discovered, the archaeologist shall have the authority to divert or temporarily halt ground disturbance to allow evaluation of recommended significant cultural resources. The process for handling inadvertent discoveries shall be documented in the CRMP. It shall detail the methods, consultation procedures, and timelines for assessing register eligibility, formulating a mitigation plan, and implementing treatment should avoidance and protection of the resource not be possible. Mitigation and treatment plans for unanticipated discoveries shall be approved by the BLM and SHPO prior to implementation. The archaeologist in coordination with the BLM shall evaluate the significance of the discovered resources based on eligibility for the NRHP, CRHR, or local registers. Preliminary determinations of NRHP eligibility shall be made by the CPUC and BLM, in consultation with other appropriate agencies and local governments, and the SHPO.	The Monitoring, Post-Review Discovery, and Unanticipated Effects Plan (CRMP) was approved by the BLM on August 10, 2012. The CRMP was submitted to the CPUC on September 24, 2012. The CRMP will be implemented during construction.	Pre and During	To Be Implemented During Construction
Cultural and Paleontological	CUL-01f	01	Control unauthorized access	SDG&E shall coordinate with the authorized officer of the BLM or local landowner/administrator at least 60 days before construction in order to determine if gates shall be installed on access roads, especially trails that would be dually used as access roads, to prevent unauthorized vehicular access to the ROW. Gate installation shall be required at the discretion of the BLM. On trails proposed for dual use as access roads, gates shall be wide enough to allow horses, bicycles, and pedestrians to pass through. SDG&E shall document its coordination efforts with the BLM of the road/trail and provide this documentation to the CPUC and BLM 30 days prior to construction. Signs prohibiting unauthorized use of the access roads shall be posted on the installed gates.	The CPUC approved the Gate Map on October 8, 2012. SDG&E coordinated with the BLM regarding installation of additional BLM-requested gates and provided the BLM with a non-confidential final Gate Map on February 12, 2013. SDG&E provided documentation to the CPUC of coordination with the BLM on February 12, 2013. Signs prohibiting unauthorized use of access roads will be posted on gates during construction once they are installed.	Pre and During	To Be Implemented During Construction
Cultural and Paleontological	CUL-01g	01	Funding of law enforcement patrols	To control unauthorized use of project access roads and to provide for the general protection of cultural and natural resources made more accessible as a result of the project facilities, SDG&E shall provide funding to BLM and CPUC for law enforcement patrols for the term of the ROW. The BLM and CPUC will formulate what funding is reasonable to implement the above.	The BLM confirmed in an email to the CPUC on February 1, 2013 that this measure is not a pre-construction requirement and will be addressed in the Long-Term Management Plan, which will be prepared and submitted to the CPUC and BLM during construction.	Pre and During	To Be Implemented During Construction

Location: 138 kV Overhead Transmission Line

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Cultural and Paleontological	CUL-01h	01	Continue consultation with Native Americans and other traditional groups	SDG&E shall provide assistance to the BLM and CPUC, as requested by the BLM and CPUC, to continue required government to government consultation with interested Native American tribes and individuals (Executive Memorandum of April 29, 1994, and Section 106 of the National Historic Preservation Act) and other traditional groups to identify and assess or mitigate the impact of the approved project on traditional cultural properties or other resources of Native American concern, such as sacred sites and landscapes, or areas of traditional plant gathering for food, medicine, basket weaving, or ceremonial uses. As directed by the BLM and CPUC, SDG&E shall undertake required treatments, studies, or other actions that result from such consultation. Actions that are required during or after construction shall be defined, detailed, and scheduled in the HPTP-CRMP and implemented by SDG&E and may include the following: · Information regarding further developments in the project; · Participation by Native American monitors in any additional surveys, archaeological excavations, and ground-disturbing construction activities; · Return of any prehistoric artifacts requiring repatriation under the NAGPRA that are recovered to the appropriate tribe after they have been analyzed by archaeologists; · The right to inspect sites where human remains are discovered and to determine the treatment and disposition of the remains; and · Copies of all site records, survey reports, or other environmental documents.	The Tribal Participation Plan was submitted to the tribes on September 12, 2012. This plan will be implemented during construction.	Pre, During, and Post	To Be Implemented During Construction
Cultural and Paleontological	CUL-02	01	Human remains	All location of known Native American human remains shall be avoided through project design and designation as ESAs if within 100 feet of project components.	No Native American human remains have been identified in the Project area. If any Native American human remains are discovered, they will be avoided during construction.	Pre and During	To Be Implemented During Construction
Cultural and Paleontological	ECO-CUL-02	01	Pre-construction analysis and assessment	At least 120 days prior to construction, a cultural/historical resource consultant will be retained by SDG&E to complete an analysis and assessment of the potential to disturb resources that were identified during the initial studies from major ground-disturbing activities. The analysis and assessment will be prepared to meet the requirements of the CEQA and NEPA. Project component sites that require testing for significance determination will be treated on a case-by-case basis using all applicable criteria.	SDG&E has contracted with ASM Affiliates under Insignia Environmental to provide qualified archaeologists for the Project. Potential CRHR/NRHP eligible sites were analyzed and assessed in the August 2011 Eligibility Report prepared by ASM Affiliates. The fieldwork portion of the East County Substation Data Recovery Project was completed in accordance with the HPTP, and the BLM approved the completion of the data recovery on December 21, 2012.	Pre	Complete
Cultural and Paleontological	PALEO-01a	01	Inventory and evaluate paleontological resources in the Final APE	Prior to construction, SDG&E shall conduct and submit to the BLM and CPUC for approval an inventory of significant paleontological resources within the affected area, based on field surveys of areas identified as marginal through high or undetermined paleontological sensitivity potential.	A Paleontological Resource Assessment was prepared for the Project by the San Diego Natural History Museum's Department of PaleoServices in 2008. The Paleontological Monitoring and Treatment Plan was approved by the CPUC and BLM on October 10, 2012.	Pre	Complete

Location: 138 kV Overhead Transmission Line

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Cultural and Paleontological	PALEO-01b	01	Develop Paleontological Monitoring and Treatment Plan	Following completion and approval of the paleontological resources inventory and prior to construction, SDG&E shall prepare and submit to the CPUC and BLM for approval a Paleontological Monitoring Treatment Plan (Plan). The Plan shall be designed by a Qualified Paleontologist and shall be based on Society of Vertebrate Paleontology (SVP) guidelines and meet all regulatory requirements, including BLM and County of San Diego Paleontological Resource Guidelines. The qualified paleontologist shall have an MA or PhD in paleontology, shall have knowledge of the local paleontology, and shall be familiar with paleontological procedures and techniques. The Plan shall identify construction impact areas of moderate to high sensitivity for encountering significant resources and the depths at which those resources are likely to be encountered. The Plan shall outline a coordination strategy to ensure that a qualified paleontological monitor will conduct full-time monitoring of all ground disturbance in sediments determined to have a moderate to high sensitivity. Sediments of low, marginal, and undetermined sensitivity shall be monitored on a part-time basis (as determined by the Qualified Paleontologist). Sediments with zero sensitivity will not require paleontological monitoring. The Qualified Paleontologist shall have a BA in Geology or Paleontology, and a minimum of 1 year of monitoring experience in local sediments. The Plan shall detail the significance criteria to be used to determine which resources will be avoided or recovered for their data potential. The Plan shall also detail methods of recovery, preparation and analysis of specimens, final curation of specimens at a federally accredited repository, data analysis, and reporting. The Plan shall specify that all paleontological work undertaken by the applicant on public land shall be carried out by qualified paleontologists with the appropriate current permits, including, but not limited to, a Paleontological Resources Use Permit (for work on public lands administered by BLM). Notices to proceed shall be issued by the lead agency and other agencies with jurisdiction, following approval of the Paleontological Monitoring and Treatment Plan.	Refer to PALEO-01a regarding the status of the Paleontological Monitoring and Treatment Plan.	Pre	Complete
Cultural and Paleontological	PALEO-01e	01	Train construction personnel	Prior to the initiation of construction or ground-disturbing activities, all construction personnel shall be trained regarding the recognition of possible subsurface paleontological resources and protection of all paleontological resources during construction. The project shall complete training for all construction personnel. Training shall inform all construction personnel of the procedures to be followed upon the discovery of paleontological materials. Training shall inform all construction personnel that Environmentally Sensitive Areas include areas determined to be paleontologically sensitive, as defined on the paleontological sensitivity maps for the project, and must be avoided, and that travel and construction activity must be confined to designated roads and areas. All personnel shall be instructed that unauthorized collection or disturbance of protected fossils on or off the ROW by the project, its representatives, or employees will not be allowed. Violators will be subject to prosecution under the appropriate state and federal laws, and violations will be grounds for removal from the project. Unauthorized resource collection or disturbance may constitute grounds for the issuance of a stop-work order. The following issues shall be addressed in training or in preparation for construction: · All construction contracts shall include clauses that require construction personnel to attend training so they are aware of the potential for inadvertently exposing subsurface paleontological resources, their responsibility to avoid and protect all such resources, and the penalties for collection, vandalism, or inadvertent destruction of paleontological resources. · The project shall provide a background briefing for supervisory personnel describing the potential for exposing paleontological resources, the location of any potential Environmentally Sensitive Areas, and procedures and notifications required in the event of discoveries by project personnel or paleontological monitors. Supervisory personnel shall enforce restrictions on collection or disturbance of fossils. · Upon discovery of paleontological resources by paleontologists or construction personnel, work in the immediate area of the find shall be diverted, and the project paleontologist shall be notified. Once the find has been inspected and a preliminary assessment made, the project paleontologist will notify the lead agency and other appropriate land managers and proceed with data recovery in accordance with the approved Treatment Plan consistent with Mitigation Measure PALEO-1B (Develop Paleontological Monitoring and Treatment Plan).	SDG&E submitted the contract language to the CPUC on September 4, 2012. The environmental awareness program, including paleontological resources awareness materials, was approved by the CPUC on December 10, 2012 and by the BLM on December 17, 2012. The CPUC approved the SWEAP Truck Driver Training handout on January 8, 2013. Implementation of the environmental awareness education program for construction personnel began in February 2013, and the first set of completed sign-in sheets were submitted to the CPUC on February 7, 2013. SDG&E will continue to administer the environmental awareness education program to all construction personnel immediately prior to them commencing work on the Project and will continue to submit the completed sign-in sheets to the CPUC and BLM during construction as attachments to the Weekly Environmental Compliance Status Report.	Pre and During	To Be Implemented During Construction

Location: 138 kV Overhead Transmission Line

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Noise	ECO-NOI-02	01	Notify property owners within 300 feet	SDG&E will provide notice of the construction plans to all property owners within 300 feet of the Project by mail at least one week prior to the start of construction activities. The announcement will state the construction start date, anticipated completion date, and hours of operation, and well as provide a telephone contact number for receiving questions or complaints during construction.	The Construction Notification Plan was approved by the CPUC on October 31, 2012. The BLM indicated on August 29, 2012 that it does not need to review the Construction Notification Plan. As required by LU-1a, public notice mailers were distributed on June 5, 2013 to notify property owners. Evidence of mailing was submitted to the CPUC on June 12, 2013.	Pre and During	Complete
Noise	NOI-01	01	Blasting Plan	SDG&E will prepare a blasting plan that will reduce impacts associated with construction-related noise and vibrations related to blasting. The blasting plan will be site specific, based on general and exact locations of required blasting and the results of a project-specific geotechnical investigation. The blasting plan will include a description of the planned blasting methods, an inventory of receptors potentially affected by the planned blasting, and calculations to determine the area affected by the planned blasting. Noise calculations in the blasting plan will account for blasting activities and all supplemental construction equipment. The final blasting plan and pre-blast survey shall meet the requirements provided below, as well as those outlined in Mitigation Measure HAZ-4b. The blasting plan will include a schedule to demonstrate, where feasible, construction blasting to occur infrequently enough that it will not exceed the County's impulsive noise standard because blasting would not occur for more than 25% (15 minutes) during a 1-hour period due to the short time duration of a blast. Where this is not possible, other construction blasting would be coordinated with impacted building occupants to occur in their absence, or at other acceptable times, to avoid nuisance or annoyance complaints. If necessary, the applicant will temporarily relocate impacted residents on an as-needed basis for the duration of the blasting activities. The applicant will be responsible for temporary relocation expenses (i.e.; expenses for temporary housing) incurred by impacted residents if relocation is necessary during blasting activities.	The CPUC approved the Blasting Plan on November 29, 2012. If blasting is necessary during construction, SDG&E will submit a site-specific blasting plan as required prior to commencement of blasting. SDG&E will provide temporary relocation expenses for residents if relocation is necessary during blasting activities.	Pre and During	To Be Implemented During Construction
Noise	NOI-01	02	Blasting Plan	To ensure that potentially impacted residents are informed, the applicant will provide notice by mail to all property owners within 300 feet of the project at least 1 week prior to the start of construction activities.	Notification to property owners within 300 feet of blasting will be provided at least one week prior to the specific blasting activities. Verification of mailings will beprovided to the CPUC.	Pre and During	To Be Implemented During Construction
Noise	NOI-02	01	Conductor configuration selection to address noise impacts	As part of the project's design selection process, the proper conductor configuration shall be selected so that the corona noise does not exceed the County's noise ordinance limits along the transmission line corridor measured during worst-case weather conditions at or beyond 6 feet from the boundary of the easement upon which the transmission line is located.	This measure is only applicable to the SWPL Loop-In; therefore, it is not applicable to the Section 2 138 kV Overhead Transmission Line.	Design and Post	N/A

Location: 138 kV Overhead Transmission Line

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Transportation	TRA-01	01	Prepare and implement a Traffic Control Plan	At minimum, the plan will include the following: · SDG&E shall encourage carpooling to the construction site to reduce personal vehicle traffic in the project area to the greatest extent possible. · SDG&E will consider the specific object sizes, weights, origin, destination, and unique handling requirements, and evaluate alternative transportation approaches. · Measures such as informational signs and flaggers shall be implemented when equipment may result in blocked roadways, and traffic cones or similar shall be implemented to identify any necessary changes in temporary lane configuration. · Flaggers and directional guidance for bicyclists along Old Highway 80 shall be used. · All Caltrans' standards for utility encroachments shall be met. · The plan shall be prepared in accordance with Caltrans' Manual on Uniform Traffic Control Devices and the Work Area Traffic Control Handbook (WATCH) Manual. · Clearances or overhead crossings shall conform to regulations of the CPUC and BLM, and the number of crossings shall be minimized. · New installations under an existing roadbed shall be made by the boring-and-jacking method. No trenching under the traveled way will occur. · For freeways and expressways, the placement of longitudinal encroachments is prohibited within controlled-access rights-of-way (ROWs). · Utilities shall not be located in median areas. · Transverse crossings shall be normal (90°) to the highway alignment where practical. If impractical, skews of up to 30° from normal may be allowed. · Supports for overhead lines crossing freeways shall be located outside the controlled-access ROW and not on cut-or-fill slopes, and shall not impair sight distances. All installations shall be placed as close to the ROW line as possible. Aboveground utilities shall be outside of the clear recovery zone (20 feet from edge-of-travel way for conventional highways and 30 feet for freeways and expressways). Allowance shall be made for future widening of the highways. · New installations shall not impair sight distances. · SDG&E shall coordinate in advance with the applicants for the other two connected actions. This effort shall include coordinating the timing of construction of the various projects to reduce potential conflicts. · SDG&E shall coordinate in advance with emergency service providers to avoid restricting movements of emergency vehicles. The County will then notify respective police, fire, ambulance, and paramedic services. SDG&E shall notify counties and cities of the proposed locations, nature, timing, and duration of any construction activities, and advise of any access restrictions that could impact their effectiveness. SDG&E shall provide a draft copy of the Traffic Control Plan to the agencies listed for comment a minimum of 90 days prior to the start of any construction activities. The comments will be provided back to SDG&E, and plan revisions will address each comment to the satisfaction of the commenting agency. The final plan will be submitted to the CPUC and BLM with input from commenting agencies and provided to SDG&E for implementation during all construction activities.	The Traffic Control Plan for the Section 2 138 kV Overhead Transmission Line was included as Attachment F: Transmission Line Traffic Control Plan to the Section 3 NTP request. The Transmission Line Traffic Control Plan will be implemented during construction.	Pre and During	To Be Implemented During Construction

Location: 138 kV Overhead Transmission Line

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Transportation	TRA-02	01	Repair roadways damaged by construction activities	If damage to roads occurs, SDG&E shall coordinate repairs with the affected public agencies to ensure that any impacts to area roads are adequately repaired at SDG&E's cost. Roads disturbed by construction activities or construction vehicles shall be properly restored to ensure long-term protection of road surfaces. Care shall be taken to prevent damage to roadside drainage structures. Roadside drainage structures and road drainage features (e.g., rolling dips) shall be protected by regrading and reconstructing roads to drain properly. Said measures shall be incorporated into an access agreement/easement with the applicable governing agency prior to construction.	Attachment F: Transmission Line Traffic Control Plan to the Section 3 NTP request includes a copy of the draft curb/grade permit plan submitted to the San Diego County for approval. If damage to roads occurs during construction, SDG&E will repair roads in coordination with San Diego County.	Pre, During, and Post	To Be Implemented During Construction
Transportation	TRA-03	01	Consult with and inform the FAA, DOD, and U.S. Customs and Border Protection	SDG&E shall consult with the FAA, DOD, and U.S. Customs and Border Protection (San Diego Sector) to avoid potential safety issues associated with proximity to airports, military bases or training areas, and land strips and to determine where Border Protection aircraft operate in the County. Prior to construction, SDG&E shall provide written notification to the FAA, the U.S. Air Force Regional Environmental Coordinator (or appropriate DOD representative), U.S. Customs and Border Protection (San Diego Sector), and to the CPUC and BLM, stating when and where the new transmission lines and towers will be erected, and shall install markers as requested by the U.S. Customs and Border Protection or FAA. SDG&E shall also provide all agencies listed above with aerial photos or topographic maps clearly showing the new lines and towers.	SDG&E has consulted with and provided written notification, along with a topographic map, to the Department of Defense, FAA and U.S. Customs & Border Patrol. Evidence of SDG&E's coordination efforts is provided as Attachment F: TRA-3 Memo to this NTP request.	Pre	Complete
Public Health and Safety	HAZ-01a	01	Hazardous Materials Management Plan	Prior to approval of final construction plans, SDG&E shall prepare an HMMP for the construction phase of the project, which shall be reviewed and approved by the appropriate agency, and shall include the following components: · The plan shall identify all hazardous materials that will be present on any portion of the construction site, including, but not limited to, fuels, solvents, and petroleum products. The plan shall address storage, use, transportation, and disposal of each hazardous material anticipated to be used at the site. The plan shall establish inspection procedures, storage requirements, storage quantity limits, inventory control, nonhazardous product substitutes, and disposition of excess materials. · The plan shall identify secondary containment and spill prevention countermeasures, as well as a contingency plan to identify potential spill hazards, how to prevent their occurrence, and responses for different quantities of spills that may occur. Secondary containment and countermeasures shall be in place throughout construction so that if any leaks or spills occur, responses will be made immediately. · The plan shall identify materials (and their locations) that will be on site and readily accessible to clean up small spills (i.e., spill kit, absorbent pads, and shovels). Such emergency spill supplies and equipment shall be clearly marked and located adjacent to all areas of work and in construction staging areas. The plan shall identify the spill-response materials that must be maintained in vehicles and substation sites during construction and procedures for notification to the appropriate authorities. · The plan shall identify adequate safety and fire suppression devices for construction-related activities involving toxic, flammable, or explosive materials (including refueling construction vehicles and equipment). Such devices shall be readily accessible on the project site, as specified by the County's Fire Department and per the Uniform Building Code and Uniform Fire Code. The plan shall be included as part of all contractor specifications and final construction plans to the satisfaction of the appropriate agency. The plan shall also identify requirements for notices to federal and local emergency response authorities and shall include emergency response plans. The plan shall be submitted to BLM and CPUC at least 30 days prior to construction.	The CPUC approved the Hazardous Materials and Waste Management Plan on October 31, 2012. The plan will be implemented during construction.	Pre and During	To Be Implemented During Construction

Location: 138 kV Overhead Transmission Line

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Public Health and Safety	HAZ-01a	02	Hazardous Materials Management Plan	Prior to construction, all contractor and subcontractor personnel shall receive training regarding the components of the HMMP, as well as applicable environmental laws and regulations related to hazardous materials handling, storage, and spill prevention and response measures.	The requirements of the HMMP have been incorporated into the environmental awareness education program. The Project's environmental awareness education program was approved by the CPUC on December 10, 2012 and by the BLM on December 17, 2012. The CPUC approved the SWEAP Truck Driver Training handout on January 8, 2013. Implementation of the environmental awareness education program for construction personnel began in February 2013, and the first set of completed sign-in sheets were submitted to the CPUC on February 7, 2013. SDG&E will continue to administer the environmental awareness education program to all construction personnel immediately prior to them commencing work on the Project and will continue to submit the completed sign-in sheets to the CPUC and BLM during construction as attachments to the Weekly Environmental Compliance Status Report.	Pre and During	To Be Implemented During Construction
Public Health and Safety	HAZ-01a	03	Hazardous Materials Management Plan	SDG&E shall designate an environmental field representative who shall be on site to observe, enforce, and document adherence to the plan for all construction activities.	SDG&E has designated Geosyntec Consultants as the Designated Field Representative. The Designated Field Representative or a designee will be on site during construction to observe, enfore, and document adherence to the Hazardous Materials and Waste Management Plan.	Pre and During	To Be Implemented During Construction

Location: 138 kV Overhead Transmission Line

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Public Health and Safety	HAZ-01b	01	Health and Safety Program	Prior to approval of final construction plans, SDG&E shall prepare a Health and Safety Program for each applicable phase of the project (i.e., construction, operation, and decommissioning). The program shall be developed to protect both workers and the general public during all phases of the project. The program shall be implemented to educate construction workers about the hazards associated with the particular project site and the safety measures that must be taken to prevent injury. The program shall include standards regarding occupational safety, safe work practices for each task, hazard training requirements for workers, and mechanisms for documentation and reporting. Regarding occupational health and safety, the program should identify all applicable federal and state occupational safety standards; establish safe work practices for each task (e.g., requirements for personal protective equipment and safety harnesses; OSHA standard practices for safe use of explosives and blasting agents; and measures for reducing occupational EMF exposures); establish fire safety evacuation procedures; and define safety performance standards (e.g., electrical system standards and lightning protection standards). The program should include a training program to identify hazard training requirements for workers for each task and establish procedures for providing required training to all workers. The program should include worker training regarding how to identify potentially contaminated soils and/or groundwater. Documentation of training and a mechanism for reporting serious accidents to appropriate agencies shall be established. The program should identify requirements for temporary fencing around staging areas, storage yards, and excavation areas during construction or decommissioning activities. Such fencing should be designed to restrict transient traffic, off-highway vehicle (OHV) use, and the general public from accessing areas under construction and should be removed once construction or decommissioning activities are complete. The program should also identify appropriate measures to be taken during operation of the project to limit public access to hazardous facilities (e.g., permanent fencing, locked access). In order to inform workers and the general public of the dangers of abandoned mines, pamphlets with the "Stay Out-Stay Alive" information used by federal and state governments should be distributed as part of the program. The program shall be submitted to BLM and CPUC at least 30 days prior to construction.	The CPUC approved the Health and Safety Program and Safety Assessment on December 13, 2012. The Health and Safety Program and Safety Assessment will be implemented during construction.	Pre and During	To Be Implemented During Construction
Public Health and Safety	HAZ-01b	02	Health and Safety Program	SDG&E shall designate an environmental field representative who shall be on site to observe, enforce, and document adherence to the program for all construction activities.	SDG&E has designated Mike Toby as the Designated Field Safety Representative. The Designated Field Representative or a designee will be on site during construction to observe, enforce, and document adherence to the Health and Safety Program and Safety Assessment.	Pre and During	To Be Implemented During Construction
Public Health and Safety	HAZ-01c	01	Waste Management Plan	Prior to approval of final construction plans, SDG&E shall prepare a Waste Management Plan, which shall determine waste procedures, waste storage locations, waste-specific management and disposal requirements, inspection procedures, and waste minimization procedures. The plan shall be submitted to CPUC and BLM at least 30 days prior to construction.	The Waste Management Plan has been combined with the Hazardous Material Management Plan required by HAZ-01a. The CPUC approved the Hazardous Materials and Waste Management Plan on October 31, 2012. The plan will be implemented during construction.	Pre and During	To Be Implemented During Construction
Public Health and Safety	HAZ-01c	02	Waste Management Plan	SDG&E shall designate an environmental field representative who shall be on site to observe, enforce, and document adherence to the plan for all construction activities.	SDG&E has designated Geosyntec Consultants as the Designated Field Representative. The Designated Field Representative or a designee will be on site during construction to facilitate adherence to the Hazardous Materials and Waste Management Plan.	Pre and During	To Be Implemented During Construction

Location: 138 kV Overhead Transmission Line

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Public Health and Safety	HAZ-01d	01	Testing for environmental hazards associated with demolition	Prior to demolition of the existing Boulevard Substation and surrounding buildings, soil, conduit, equipment, and structures shall be tested for environmental hazards, including oil, lead-based paint, and asbestos. An asbestos and lead-based paint survey shall be performed by a Cal/OSHA certified Asbestos Consultant/Site Surveillance Technician and a California Department of Public Health (CDPH) certified Inspector/Assessor, Sampling Technician, or Program Monitor. The survey shall be performed in accordance with the applicable state guidance to identify asbestos containing materials (ACM), asbestos containing construction materials (ACCM), and lead-based paint (LBP) as defined in the California Code of Regulations. If ACM, ACCM, or LBP is identified, abatement and disposal of all regulated materials shall be performed by a Cal/OSHA/CDPH certified abatement contractor prior to or during the demolition process.	This measure only applies to demolition of the existing Boulevard Substation; therefore, this measure is not applicable to the 138 kV Overhead Transmission Line.	Pre and During	N/A
Public Health and Safety	HAZ-02a	01	Test for pesticides/herbicides on currently or historically farmed land	In areas where the land has been or is currently being farmed, soil samples shall be collected and tested for herbicides, pesticides, and fumigants to determine the presence and extent of any contamination. The sampling and testing shall be prepared in consultation with the County Agricultural Commission, conducted by an appropriate California licensed professional, and sent to a California Certified Laboratory. A report documenting the areas proposed for sampling and the process used for sampling and testing shall be submitted to the CPUC and BLM for review and approval at least 60 days prior to construction.	The Pesticide and Herbicide Testing Work Plan was approved by the CPUC on December 7, 2012. The final engineering plans were submitted to the CPUC on September 17, 2013 to confirm that no further action related to the Pesticide and Herbicide Testing Results is required. The CPUC confirmed that no additional actional action is required on September 27, 2013.	Pre	Complete
Public Health and Safety	HAZ-02a	02	Test for pesticides/herbicides on currently or historically farmed land	Results of the laboratory testing and recommended resolutions for handling and excavating materials found to exceed regulatory requirements shall be submitted to the CPUC and BLM at least 30 days prior to construction.	The Pesticide and Herbicide Testing Work Plan was approved by the CPUC on December 7, 2012. The testing results were submitted to the CPUC on February 22, 2013.	Pre	Complete
Public Health and Safety	HAZ-02a	03	Test for pesticides/herbicides on currently or historically farmed land	If soil or groundwater contamination is confirmed as a result of soil sampling, SDG&E shall immediately stop work and notify the designated environmental field representative. All work in the contaminated area shall cease, the work shall be cordoned off, and the environmental field representative shall implement appropriate health and safety procedures. Work outside the contaminated area may continue as determined by the environmental field representative. Excavated materials containing elevated levels of pesticides or herbicides would require special handling and disposal according to procedures established by the regulatory agencies. Effective dust control suppression procedures shall be used in construction areas to reduce airborne emissions of these contaminants and reduce the risk of exposure to workers and the public. SDG&E shall contact the appropriate regulatory agencies for the State of California (e.g., DTSC or RWQCB) and the County to plan options for handling, treating, and/or disposing of materials.	The Pesticide and Herbicide Testing Work Plan was approved by the CPUC on December 7, 2012. The testing results were submitted to the CPUC on February 22, 2013. No contaminated soil or groundwater was identified during soil sampling. This measure will be implemented during construction, as necessary.	Pre and During	To Be Implemented During Construction

Location: 138 kV Overhead Transmission Line

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Public Health and Safety	HAZ-03	01	Soil testing for lead contamination	Soil samples shall be collected and tested from all excavation sites within 500 feet of any area identified as a current or historical shooting range to determine the presence of lead and extent of any contamination. The sampling and testing shall be conducted by a California licensed professional and sent to a California Certified Laboratory. A report documenting the areas proposed for sampling and the process used for sampling and testing shall be submitted to the project's lead agency for review and approval at least 60 days prior to excavation. Results of the laboratory testing and recommended resolutions for handling and excavating any materials found to exceed regulatory requirements shall be submitted to the project's lead agency 30 days prior to excavation. In addition, a Soil/Lead Contamination Handling Plan shall be prepared to address appropriate procedures in the event that lead contamination is discovered as a result of soil testing. This plan shall contain provisions for a lead-awareness program for workers, as well as guidelines for the identification, removal, transport, and disposal of lead-impacted materials. This plan shall also emphasize that all activities within, or in close proximity to, contaminated areas must follow applicable environmental and hazardous waste laws and regulations. This plan shall be submitted to the project's lead agency 30 days prior to excavation. Documentation of any confirmed or suspected contamination identified during testing or excavation shall be made in the form of a report identifying the location and potential contamination, as well as the process used for sampling. Results of laboratory testing and recommended resolutions for handling and excavating materials found to exceed regulatory requirements shall be submitted to the CPUC and BLM for review and approval.	Per the MMCRP, this measure only applies to the ECO Substation site; therefore, this measure is not applicable to the 138 kV Overhead Transmission Line.	Pre and During	N/A
Public Health and Safety	HAZ-04a	01	Safety assessment	Prior to commencing construction activities, SDG&E shall conduct a safety assessment to describe potential safety issues associated with the project, how safety prevention measures would be implemented, where medical aid kits would be located, the appropriate response action for each safety hazard, and procedures for notifying the appropriate authorities. The assessment shall address issues such as site access, construction hazards, safe work practices, security, heavy equipment transportation, traffic management, emergency procedures, and fire control.	The CPUC approved the Health and Safety Program and Safety Assessment on December 13, 2012. The Health and Safety Program and Safety Assessment will be implemented during construction.	Pre and During	To Be Implemented During Construction
Public Health and Safety	HAZ-04b	01	Blasting Plan	If blasting is deemed necessary for the construction of project components, SDG&E shall conduct a pre-blast survey and prepare a blasting plan. A written report of the pre-blast survey and final blasting plan shall be provided to the appropriate regulatory agency and approved prior to any rock removal using explosives. In addition to any other requirements established by the appropriate regulatory agencies, the pre-blast survey and blasting plan shall meet the following conditions, as well as those outlined in Mitigation Measure NOI-1: The pre-blast survey shall be conducted for structures within a minimum radius of 1,000 feet from the identified blast site to be specified by SDG&E. Sensitive receptors that could reasonably be affected by blasting shall be surveyed as part of the pre-blast survey. Notification that blasting would occur shall be provided to all owners of the identified structures to be surveyed prior to commencement of blasting. The pre-blast survey shall be included in the final blasting plan. The final blasting plan shall address air-blast limits, ground vibrations, and maximum peak particle velocity for ground movement, including provisions to monitor and assess compliance with the air-blast, ground vibration, and peak particle velocity requirements. The blasting plan shall meet criteria established in Chapter 3 (Control of Adverse Effects) in the Blasting Guidance Manual of the U.S. Department of Interior Office of Surface Mining Reclamation and Enforcement. The blasting plan shall outline the anticipated blasting procedures for the removal of rock material at the proposed turbine foundation locations. The blasting procedures shall incorporate line control to full depth and controlled blasting techniques to create minimum breakage outside the line control and maximum rock fragmentation within the target area. Prior to blasting, all applicable regulatory measures shall be met. SDG&E, its general contractor, or its subcontractor (as appropriate) shall keep a record of each blast for at least 1 year from the date of the last blast.	Refer to NOI-01 regarding the status of the Blasting Plan. SDG&E will prepare a site-specific blasting plan prior to blasting.	Pre, During, and Post	To Be Implemented During Construction
Public Health and Safety	PS-01a	01	Minimize electromagnetic and public safety communications	The project shall be designed to minimize EMI (e.g., impacts to radar, microwave, television, and radio transmissions) and comply with FCC regulations.	The CPUC approved a report demonstrating minimization of EMI in compliance with FCC regulations on January 11, 2013. SDG&E has specified and will implement designs that minimize EMI, in accordance with the report, during construction.	Pre and During	To Be Implemented During Construction

Location: 138 kV Overhead Transmission Line

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Public Health and Safety	PS-01a	02	Minimize electromagnetic and public safety communications	Signal strength studies shall be completed prior to construction and conducted when proposed locations have the potential to impact transmissions.	The CPUC approved a report discussing signal strength measurements and interference issues on January 11, 2013. SDG&E has specified and will implement designs that minimize transmission impacts during construction, in accordance with the report, during construction.	Pre and During	To Be Implemented During Construction
Public Health and Safety	PS-01b	01	Limit conductor surface potential	Prior to construction, SDG&E shall specify and implement designs that limit the conductor surface electric gradient in accordance with the Institute of Electrical and Electronic Engineers (IEEE) Radio Noise Design Guide.	To address PS-1b, SDG&E submitted a report with a memo attached that discusses compliance with the IEEE Radio Noise Design Guide to the CPUC on December 13, 2012. SDG&E has specified and will implement designs that limit the conductor surface electric gradient in accordance with the IEEE Radio Noise Design Guide.	Pre, During, and Post	To Be Implemented During Construction
Public Health and Safety	PS-02	01	Determine proper grounding procedures and implement appropriate grounding measures	As part of the project siting and construction process, SDG&E's contractor(s) shall identify objects (such as fences, conductors, and pipelines) that have the potential for induced voltages and work with the affected parties to determine proper grounding procedures (Note: CPUC General Order 95 and the NESC do not have specific requirements for grounding). SDG&E shall install all necessary grounding measures prior to energizing the line.	A memo identifying objects to be grounded has been included as Attachment E: Objects Grounded Memo of this NTP request. SDG&E will install all necessary grounding measures identified in the memo during construction and prior to energizing the line.	Pre, During, and Post	To Be Implemented Prior to Energization
Air Quality	ECO-AIR-13	01	Green building practices at ECO Substation	During final design, SDG&E will consider the feasibility of using rooftop photovoltaic panels on the control shelters to help support operating load at the ECO Substation. SDG&E will also investigate utilizing solar tubes for lighting in the control shelters. SDG&E's Project team will work closely with SDG&E's Sustainable Communities team to implement green building practices at the ECO Substation.	ECO-AIR-13 only applies to the ECO Substation per the MMCRP; therefore, this measure is not applicable to the 138 kV Overhead Transmission Line.	Design	N/A
Hydrology and Water	ECO-HYD-01	01	Compensation for permanent impacts to waters of the U.S. and state-only waters	SDG&E will compensate for permanent impacts to any waters of the U.S. and state-only waters at a minimum ratio of one to one or as required by the USACE, CDFG, and RWQCB through their respective permitting processes.	The intent and requirements of ECO-HYD-01 will be satisfied through the implementation of the HMMP and CMP during construction, as required by BIO-01e. Refer to BIO-01e regarding the status of these plans. SDG&E will satisfy the compensatory mitigation requirements during construction in accordance with the permit requirements.	Pre and During	To Be Implemented During Construction

Location: 138 kV Overhead Transmission Line

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Hydrology and Water	HYD-01	01	A Stormwater Pollution Prevention Plan shall be prepared to reduce soil erosion during construction	In compliance with the new SWRCB's NPDES General Permit for Storm Water Associated with Construction Activities (Order No. 2009-0009-DWQ, NPDES No. CAS000002, effective July 1, 2010), SDG&E shall prepare a project-specific SWPPP before construction begins, and it shall be kept on site throughout the construction process. The SWPPP shall include the following: · Identification of pollutant sources and non-stormwater discharges associated with construction activity. · Specifications for BMPs that shall be implemented during project construction to minimize the potential for accidental releases and runoff from the construction areas, including temporary construction yards, pull sites, and helicopter landing zones. Specifications shall include: - A plan for training construction crews - A plan for monitoring and inspecting BMPs and site conditions - A plan for sampling and analysis of pollutants (as necessary). · Where applicable, the following shall apply: - Construction impacts shall be minimized to the greatest extent possible - Upon completion of construction phases, roadways shall be reduced to minimum widths needed - Areas disturbed during construction shall be revegetated to their natural states - Construction roadways shall follow natural contours to the extent practical and be designed to minimize stream crossings, avoid wetlands, and maintain surface water runoff patterns to prevent erosion - CDFG guidelines for culverts shall be followed to minimize long-term maintenance and meet a 10-year rain event to minimize trapping of sediment. · Where applicable, the following shall apply to reduce the release of contaminants to the local surface and groundwater: - For on-site storm drain inlets, mark all inlets with the words "No Dumping! Flows to Sensitive Habitat" or similar. - For landscaping, show locations of native trees or areas of shrubs and ground cover to be undisturbed and retained. Show self-retaining landscape, if any. State that final landscape plans will preserve existing native trees, shrubs, and ground cover will cover maximum extent possible. - Design landscaping to minimize irrigation, runoff, and use of pesticides and fertilizers that contribute to stormwater pollution. Select plants that are appropriate for site soils, slopes, climate, wind, sun, rain, land use, ecological consistency, and plant interactions. - For outdoor storage of equipment or materials, show storage areas and how they will be covered and what structural features or grading will be incorporated to prevent pollutants from discharging from the site. - Designate areas for vehicle/equipment repair, maintenance, and cleaning, and document how these areas will be contained to prevent pollutant runoff. - For leaking or failure of large power transformers, have 100% containment at each power transformer.	The Linear SWPPP was uploaded to SMARTS on November 20, 2012 and submitted to the CPUC on November 27, 2012. The SWPPP will be implemented during construction.	Pre and During	To Be Implemented During Construction

Location: 138 kV Overhead Transmission Line

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Hydrology and Water	HYD-02	01	Avoidance and preventative measures to protect local groundwater during excavation	Prior to excavation, a qualified geologist/hydrologist shall determine the depth of groundwater in areas where excavation would occur.	The Geotechnical Investigation Report, which identified depth to groundwater, was submitted to the CPUC on August 1, 2012.	Pre	Complete
Hydrology and Water	HYD-02	02	Avoidance and preventative measures to protect local groundwater during excavation	The project shall be designed to avoid areas of shallow groundwater where feasible. In such areas where groundwater cannot be avoided during excavation, the site shall be dewatered during construction, and materials that could contaminate the groundwater shall be kept at least 200 feet from the dewatering activities. An NPDES permit shall be obtained for proper disposal of water. Treatment may be required prior to discharge.	Procedures for dewatering and proper disposal of water are included in the Project-specific SWPPPs. The Linear SWPPP was submitted to the CPUC on November 27, 2012 and will be implemented during construction. A Notice of Intent for the 138 kV Transmission Line was submitted to the State Water Resources Control Board on November 20, 2012 and a Waste Discharge Identification Number was received on December 7, 2012.	Design and During	To Be Implemented During Construction
Hydrology and Water	HYD-03	01	Identification of sufficient water supply	Prior to construction SDG&E will prepare comprehensive documentation that identifies one or more confirmed, reliable water sources that when combined meet the project's full water supply construction needs. Documentation will consist of the following: · Preparation of a groundwater study. For well water that is to be used, the applicant will commission a groundwater study by a qualified hydrogeologist to assess the existing condition of the underlying groundwater/aquifer and all existing wells (with owner's permission) in the vicinity of proposed well location/water sources. The groundwater study will evaluate aquifer properties and aquifer storage. The groundwater study will estimate short and long-term well water supplies from each well proposed to be used, and documentation indicating that each well is capable of producing the total amount of water to be supplied for construction from each well. The groundwater study will estimate short- and long-term impacts of the use of the well(s) on the local groundwater production (short-term extraction for construction water and ongoing O&M water), on all project wells, and on other wells in the project area. The groundwater study will include an assessment of the potential for subsidence brought on by project-related water use in the area. The applicant will provide demonstration of compliance will all applicable laws and regulations and will obtain a County of San Diego Major Use Permit for use of any proposed well prior to construction. · Documentation of Purchased Water Source(s). For water that is to be purchased from one or more water/utility district(s), the applicant shall provide written documentation from such district(s) indicating the total amount of water to be provided and the time frame that the water will be made available to the project. The Sweetwater Authority has provided written confirmation of water availability to support the project. Total confirmed water supplies from the combination of above documented sources shall equal the total gallons of water needed through construction of the project.	The Construction Water Supply Plan was approved by the CPUC with additional documentation on January 31, 2013. SDG&E submitted Amended Construction Water Supply Plans to the CPUC on June 20, 2013, September 13, 2013, and September 25, 2013. The CPUC provided additional comments to the Amended Construction Water Supply Plan on September 30, 2013. SDG&E will submit a revised Amended Construction Water Supply Plan that addressed these comments.	Design	Complete

Location: 138 kV Overhead Transmission Line

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Hydrology and Water	HYD-04	01	Preparation of a Stormwater Management Plan	SDG&E shall commission an SWMP in compliance with the County of San Diego Major Storm Water Management Plan. The SWMP shall be project specific and developed in conjunction with project design. The SWMP shall include site design BMPs that, where applicable, shall: · Maintain predevelopment rainfall runoff characteristics. The BMPs shall: Locate the project and road improvement alignments to avoid or minimize impacts to receiving waters or to increase the preservation of critical (or problematic) areas such as floodplains, steep slopes, wetlands, and areas with erosive or unstable soil conditions; Minimize the project's impervious footprint; Conserve natural and critical areas, such as floodplains, steep slopes, wetlands, and areas with erosive and unstable soil conditions; Where landscape is proposed, drain rooftops, impervious sidewalks, walkways, trails, and patios into adjacent landscaping; Design and locate roadway structures and bridges to reduce the amount of work in live streams, and minimize the construction impacts - Implement the following methods to minimize erosion from slopes: Disturb existing slopes only when necessary; Minimize cut-and-fill areas to reduce slope lengths; Incorporate retaining walls to reduce steepness of slopes or to shorten slopes; Provide benches or terraces on high cut-and-fill slopes to reduce concentration of flows; Round and shape slopes to reduce concentrated flow; Collect concentrated flows in stabilized drains and channels; Protect slopes and channels. - The BMPs shall: Minimize disturbances to natural drainages; Convey runoff safely from the tops of slopes; Vegetate slopes with native or drought-tolerant vegetation; Stabilize permanent channel crossings; Install energy dissipaters, such as riprap, at the outlets of new storm drains, culverts, conduits, or channels that enter unlined channels in accordance with applicable specifications to minimize erosion. Energy dissipaters shall be installed in such a way as to minimize impacts to receiving waters. - Include other design principles that are comparable and equally effective. · The SWMP shall also incorporate Low Impact Development Features into the project, including but not limited to: Preserve well-draining soils (Type A or B); Preserve significant trees; Set back development envelope from drainages; Restrict heavy construction equipment access to planned green/open space areas; Re-till soils compacted by construction vehicles/equipment; Collect and reuse upper soil layers of development site containing organic materials; Curb cuts to landscaping; Use rural swales; Use concave median; Use permeable pavements; Pitch pavements toward landscaping; Use cisterns and rain barrels; Downspout to swale; Use vegetated roofs; Use soil amendments; Reuse native soils; Use smart irrigation systems; and Use street trees (HDR 2009b). The SWMP shall ensure that the project follows CDFG guidelines for culverts to minimize long-term maintenance and meet a 10-year rain event to minimize the trapping of sediment.	The CPUC approved the statement of conformance stating that HYD-04 will be fulfilled by the preparation and implementation of the Project-specific SWPPPs on January 30, 2013. The Linear SWPPP was submitted to the CPUC on November 27, 2012. The SWPPP will be implemented during construction.	Pre and During	To Be Implemented During Construction

Location: 138 kV Overhead Transmission Line

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Hydrology and Water	HYD-05	01	Implementation of creek-crossing procedures	Where creek crossings can be completed during dry season, with no flows present in the creek, seasonally timed restorative open trenching will be completed. This procedure will use minimum trench widths. Trench cut material will not be placed outside of the creek bed and outside of 100-year inundated areas. Trench fill will be compacted and replaced to existing conditions, including matching existing creek bed gradations, and restoring vegetation. Open trenching restoration will be completed prior to any wet season flows, and will include anti-erosion action plans for any unplanned rainfall during construction. The applicant shall obtain all required permits prior to completing open trenching through drainages. In any case, flows will be isolated from open trenching by best management practices mandated by the General Construction Permit. Areas of trenching would be restored and/or vegetated at completion of work. Where creek crossing cannot be completed during the dry season creek crossing shall use jack-and-bore procedures to avoid direct impacts and shall be conducted in a manner that does not result in sediment-laden discharge or hazardous materials release to the water body. The following measures shall be implemented during horizontal boring (jack-and-bore) operations: (1) Site preparation shall begin no more than 10 days prior to initiating horizontal bores to reduce the time soils are exposed adjacent to creeks and drainages. (2) Trench and/or bore pit spoil shall be stored a minimum of 25 feet from the top of the bank or wetland/riparian boundary. Spoils shall be stored behind a sediment barrier and covered with plastic or otherwise stabilized (i.e., tackifiers, mulch, or detention). (3) Portable pumps and stationary equipment located within 100 feet of a water resource (i.e., wetland/riparian boundary, creeks, and drainages) shall be placed within secondary containment with adequate capacity to contain a spill (i.e., a pump with 10-gallon fuel or oil capacity should be placed in secondary containment capable of holding 15 gallons). A spill kit shall be maintained on site at all times. (4) Immediately following backfill of the bore pits, disturbed soils shall be seeded and stabilized to prevent erosion, and temporary sediment barriers shall be left in place until restoration is deemed successful. (The applicant shall obtain the required permits prior to conducting creek crossing work. Required permits may include ACOE CWA Section 404, Regional Water Quality Control Board Clean Water Act 401, and CDFG Streambed Alteration Agreement 1602. The applicant shall implement all pre- and post-construction conditions identified in the permits issued. The plan shall be submitted to the CPUC, County of San Diego, and ACOE 60 days prior to construction.)	Jack-and-bore and horizontal directional drilling procedures will not be utilized for construction of the overhead segment of the 138 kV Overhead Transmission Line; therefore, this meaure is not applicable.	Pre, During, and Post	N/A
Hydrology and Water	HYD-06	01	Horizontal Directional Drill Contingency Plan	If horizontal directional drilling is to be used during construction SDG&E shall prepare a Horizontal Directional Drill Contingency Plan to address procedures for containing an inadvertent release of drilling fluid (frac-out). The plan shall contain specific measures for monitoring frac-outs, for containing drilling mud, and for notifying agency personnel. The plan shall also discuss spoil stockpile management, hazardous materials storage and spill cleanup, site-specific erosion and sediment control, and housekeeping procedures, as described in the SWPPP. The plan shall be submitted to the CPUC, BLM, and ACOE 60 days prior to construction.	Horizontal directional drilling will not be used for installation of the 138 kV Overhead Transmission Line; therefore, this measure is not applicable.	Pre	N/A
Hydrology and Water	HYD-06	02	Horizontal Directional Drill Contingency Plan	SDG&E shall obtain the required permits prior to conducting work associated with horizontal directional drilling activities. Required permits may include U.S. Army Corps of Engineers Clean Water Act Section 404, Regional Water Quality Control Board Clean Water Act 401, and CDFG Streambed Alteration Agreement Section 1602. SDG&E shall implement all pre- and post-construction conditions identified in the permits issued for the horizontal directional drilling.	Horizontal directional drilling will not be used for installation of the 138 kV Overhead Transmission Line; therefore, this measure is not applicable.	Pre and During	N/A
Hydrology and Water	HYD-07	01	Bury power line below 100-year scour depth	At locations where the buried power line is to be at or adjacent to a streambed capable of scour, the power line shall be located below the expected depth of scour from a 100-year flood, or otherwise protected from exposure by scour that, for purposes of this mitigation measure, also includes lateral (stream bank) erosion and potential scour associated with flows overtopping or bypassing a culvert or bridge crossing.	No buried power lines will be installed for the 138 kV Overhead Transmission Line; therefore, this measure is not applicable.	Design and During	N/A
Hydrology and Water	HYD-07	02	Bury power line below 100-year scour depth	During final design, a registered civil engineer with expertise in hydrology, hydraulics, and river mechanics shall make a determination of where the underground line could be at risk of exposure through scour or erosion from a 100-year event.	No buried power lines will be installed for the 138 kV Overhead Transmission Line; therefore, this measure is not applicable.	Pre	N/A

Location: 138 kV Overhead Transmission Line

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Geology, Mineral, Soil	GEO-01	01	Erosion Control and Sediment Transport Control Plan	The Erosion Control and Sediment Transport Control Plan would be included with the project grading plans submitted to the County for review and comment. The plan would be submitted to CPUC and BLM a minimum of 60 days prior to project design and would be prepared in accordance with the standards provided in the Manual of Erosion and Sedimentation Control Measures and consistent with practices recommended by the Resource Conservation District of Greater San Diego County. Implementation of the plan would help stabilize soil in graded areas and waterways and reduce erosion and sedimentation. The plan would designate BMPs that would be implemented during construction activities. Erosion control efforts, such as hay bales, water bars, covers, sediment fences, sensitive area access restrictions (e.g., flagging), vehicle mats in wet areas, and retention/settlement ponds, would be installed before extensive soil clearing and grading begins. Appropriate stabilization measures, such as mulching or seeding, would be used to protect exposed areas during construction activities.	Per confirmation by the CPUC on July 18, 2012, the SWPPP will satisfy the requirements of GEO-01. The Linear SWPPP was submitted to the CPUC on November 27, 2012. The SWPPP will be implemented prior to construction.	Pre and During	To Be Implemented During Construction
Geology, Mineral, Soil	GEO-01	02	Erosion Control and Sediment Transport Control Plan	Revegetation plans, the design and location of retention ponds, and grading plans would be submitted to the CDFG and ACOE for review in the event of construction near waterways.	Per confirmation by the CPUC on July 18, 2012, the SWPPP will satisfy the requirements of GEO-01. The Linear SWPPP was submitted to the CPUC on November 27, 2012. The SWPPP will be implemented during construction. The final engineering plans for the Section 2 138 kV Overhead Transmission Line will be submitted to the USACE prior to construction.	Pre	To Be Implemented Immediately Prior to Const.
Geology, Mineral, Soil	GEO-02	01	Conduct geotechnical studies for soils to assess characteristics and aid in appropriate foundation design	The design-level geotechnical studies to be performed by SDG&E shall identify the presence, if any, of potentially detrimental soil chemicals, such as chlorides and sulfates. Appropriate design measures shall be utilized for protection of reinforcement, concrete, and metal-structural components against corrosion, including use of corrosion-resistant materials and coatings, increased thickness of project components exposed to potentially corrosive conditions, and use of passive and/or active cathodic protection systems. The geotechnical studies shall also identify areas with potentially expansive or collapsible soils and include appropriate design features, including excavation of potentially expansive or collapsible soils during construction and replacement with engineered backfill, ground-treatment processes, and redirection of surface water and drainage away from expansive foundation soils. Studies shall conform to industry standards of care and ASTM standards for field and laboratory testing. Design shall conform to applicable sections of the County of San Diego grading codes, CBC, and the standard specifications for public works construction. The geotechnical studies prepared by a certified geologist shall be submitted to CPUC and BLM 60 days prior to construction of proposed structures.	The Geotechnical Investigation Report, which includes an assessment of soil characteristics, was submitted to the CPUC on August 1, 2012.	Pre and During	Complete
Geology, Mineral, Soil	GEO-03	01	Conduct geotechnical investigations	The applicant shall perform design-level geotechnical investigations to evaluate the potential for liquefaction, lateral spreading, seismic slope instability, and ground-cracking hazards to affect the approved project and all associated facilities. Where these hazards are found to exist, appropriate engineering design and construction measures that meet CBC and IEEE design parameters shall be incorporated into the project designs. Appropriate measures for project facilities could include construction of pile foundations, ground improvement of liquefiable zones, installation of flexible bus connections, and incorporation of slack in underground cables to allow ground deformations without damage to structures. The geotechnical investigations prepared by a certified geologist shall be submitted to CPUC and BLM 60 days prior to construction of proposed structures.	The Geotechnical Investigations Report was submitted to the CPUC on August 1, 2012.	Pre and During	Complete
Public Services and Utilities	PSU-01a	01	Notification of utility service interruption	Prior to construction in which a utility service interruption is known to be unavoidable, SDG&E shall notify members of the public affected by the planned outage by mail of the impending interruption, and shall post flyers informing the public of the service interruption in neighborhoods affected by the planned outage. Copies of notices and dates of public notification shall be provided to the applicable lead agency.	Members of the public will be notified by mail if a utility service interruption is known to be unavoidable.	Pre and During	To Be Implemented During Construction

Location: 138 kV Overhead Transmission Line

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Public Services and Utilities	PSU-01b	01	Protect underground utilities	Prior to construction of the transmission/gen-tie line, SDG&E shall submit to the CPUC and BLM written documentation, including evidence of review by the appropriate jurisdictions, including the following: · Construction plans designed to protect existing utilities and that show the dimensions and location of the finalized alignment · Records that the applicant provided the plans to affected jurisdiction for review, revision, and final approval · Evidence that the project meets all necessary local requirements · Evidence of compliance with design standards · Copies of necessary permits, agreements, or conditions of approval · Records of discretionary decisions made by the appropriate agencies.	A memo that confirms approval and completion of review of the items listed in this measure was submitted to the CPUC on June 26, 2013 as an attachment to the Southern Access Road Underground NTP request. The Southern Access Road Underground NTP request was approved by the CPUC on July 2, 2013.	Pre	Complete
Public Services and Utilities	PSU-01c	01	Coordinate with utility providers	SDG&E shall coordinate with all applicable utility providers with facilities located within or adjacent to the project to ensure that design does not conflict with other facilities prior to construction. In the event of a conflict, the project will be aligned vertically and/or horizontally as appropriate to avoid other utilities and provide adequate operational and safety buffering. Alternately, the other existing facilities may be relocated. Long-term operations and maintenance of the project will be negotiated through easement, purchased ROW, franchise agreement, or joint use agreement.	Documentation of coordination with applicable utility providers regarding the location of facilities and potential conflicts was submitted to the CPUC on June 26, 2013 as an attachment to the Southern Access Road Underground NTP request. The Southern Access Road Underground NTP request was approved by the CPUC on July 2, 2013.	Design	Complete

Location: 138 kV Overhead Transmission Line

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Fire and Fuel	FF-01	01	Develop and implement a Construction Fire Prevention / Protection Plan	San Diego Gas & Electric Company (SDG&E) shall develop a multiagency Construction Fire Prevention/Protection Plan in consultation with the California Department of Forestry and Fire Protection (CAL FIRE), San Diego Rural Fire Protection District (SDRFPD), and San Diego County Fire Authority (SDCFA) to the satisfaction of the CPUC. SDG&E shall monitor construction activities to ensure implementation and effectiveness of the plan. The final plan will be approved by the CPUC prior to the initiation of construction activities and shall be implemented during all construction activities by SDG&E. At minimum, the plan will include the following: · Procedures for minimizing potential ignition (vegetation clearing, fuel modification establishment, parking requirements; smoking restrictions, hot work restrictions); Red Flag Warning restrictions; Fire coordinator role and responsibility; Fire suppression equipment on site at all times work is occurring; Requirements of Title 14 of the California Code of Regulations (CCR), Article 8 #918 "Fire Protection" for private land portions; Access road widening (28-foot County roads, 18-foot-wide spur roads); Applicable components of the SDG&E Wildland Fire Prevention and Fire Safety Electric Standard Practice (2009); Emergency response and reporting procedures; Emergency contact information; Worker education materials; kick-off and tailgate meeting schedules; Other information as provided by CAL FIRE, SDRFPD, SDCFA, CPUC, and Bureau of Land Management (BLM). Additional restrictions will include the following: · During the construction phase of the project, SDG&E shall implement ongoing fire patrols. SDG&E shall maintain fire patrols during construction hours and for 1 hour after end of daily construction, and hotwork · Fire Suppression Resource Inventory - In addition to 14 CCR 918.1(a), (b), and (c), SDG&E shall update in writing the 24-hour contact information and on-site fire suppression equipment, tools, and personnel list on a quarterly basis and provide it to the CAL FIRE, SDRFPD, and SDCFA. · During Red Flag Warning events, as issued daily by the National Weather Service in state responsibility areas (SRAs) and local responsibility areas (LRA), all non-essential, non-emergency construction and maintenance activities shall cease or be required to operate under Hot Work Procedure. · SDG&E and contractor personnel shall be informed of changes to the Red Flag event status and PAL as stipulated by CAL FIRE and CNF. · All construction crews and inspectors shall be provided with radio and/or cellular telephone access that is operational throughout the project area to allow for immediate reporting of fires. Communication pathways and equipment shall be tested and confirmed operational each day prior to initiating construction activities at each construction site. All fires shall be reported to the fire agencies with jurisdiction in the project area immediately upon ignition. · Each crew member shall be trained in fire prevention, initial attack firefighting, and fire reporting. Each member shall carry at all times a laminated card listing pertinent telephone numbers for reporting fires and defining immediate steps to take if a fire starts. Information on contact cards shall be updated and redistributed to all crewmembers as-needed, and outdated cards destroyed, prior to the initiation of construction activities on the day the information change goes into effect. · Each member of the construction crew shall be trained and equipped to extinguish small fires with hand-held fire extinguishers in order to prevent them from growing into more serious threats. Each crew member shall at all times be within 100 feet of a vehicle containing equipment necessary for fire suppression as outlined in the final Construction Fire Prevention/Protection Plan. SDG&E will provide a draft copy of the Construction Fire Prevention/Protection Plan to the CAL FIRE, SDRFPD, and SDCFA for comment a minimum of 90 days prior to the start of any construction activities. The comments will be provided back to SDG&E and revisions to the plan will address each comment to the satisfaction of the CPUC. The final plan will be approved by the CPUC with input from CAL FIRE, SDRFPD, SDCFA, and BLM, as desired, prior to the initiation of construction activities and provided to SDG&E for implementation during all construction prior to the initiation of construction activities.	SDG&E submitted the Construction Fire Prevention/Protection Plan with the SDRFPD approval letter to the CPUC on December 19, 2012. SDG&E submitted SDCFA and CAL FIRE approval letters for the Construction Fire Prevention/Protection Plan to the CPUC on February 8, 2013. The BLM indicated its approval of the plan on January 23, 2013. The Construction Fire Prevention/Protection Plan will be implemented during construction.	Pre, During, and Post	To Be Implemented During Construction

Location: 138 kV Overhead Transmission Line

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Fire and Fuel	FF-02	01	Wildland Fire Prevention and Fire Safety Electric Standard Practice O&M Plan	Revise the Wildland Fire Prevention and Fire Safety Electric Standard Practice Plan (2009) to create the Wildland Fire Prevention and Fire Safety Electric Standard Practice Operational Maintenance Plan. The revised plan will address the ECO Substation Project and will be implemented during all operational maintenance work associated with the project for the life of the project. Important fire safety concepts that will be included in this document are as follows: · Implement existing practices including Electric Standard Practice 113.1, Maintenance of existing Remote Automated Weather Stations and territory-wide weather system monitoring, adjusted system reclosing policies (patrols), replacement of wood poles with steel in priority areas, and additional measures as may be developed, participation in San Diego County FireSafe Council and other public outreach. · Guidance on where maintenance activities may occur (non-vegetated areas, cleared access roads, and work pads that are approved as part of the project design plans) Fuel modification buffers required by the Fire Protection Plan (FPP) · When vegetation work will occur (prior to any other work activity) · Timing of vegetation clearance work to reduce likelihood of ignition and or fire spread · Coordination procedures with fire authority · Integration of the project's Construction Fire Prevention/Protection Plan content · Personnel training and fire suppression equipment · Fire safety coordinator role as manager of fire prevention and protection procedures, coordinator with fire authority and educator · Communication protocols · Incorporation of CAL FIRE, San Diego Rural Fire Protection District (SDRFPD), and SDCFA reviewed and approved Response Plan mapping and assessment. · Other information as provided by CAL FIRE, SDRFPD, SDCFA, BLM, and CPUC SDG&E will provide a draft copy of the Wildland Fire Prevention and Fire Safety Electric Standard Practice Operational; Maintenance Plan to CAL FIRE, SDRFPD, SDCFA, BLM, and CPUC for comment a minimum of 90 days prior to the start of any construction activities. The comments will be provided back to SDG&E and plan revisions will address each comment to the satisfaction of the CPUC. The final plan will be approved by the CPUC prior to energizing the project and provided to SDG&E for implementation during all operational maintenance activities.	The Wildland Fire Prevention and Fire Safety Electric Standard Practice 113.1, which was revised in consultation with relevant agencies, was approved by the CPUC on February 1, 2013. The BLM indicated its approval of the plan on January 23, 2013. The plan will be implemented following construction.	Pre and Post	To Be Implemented Following Construction

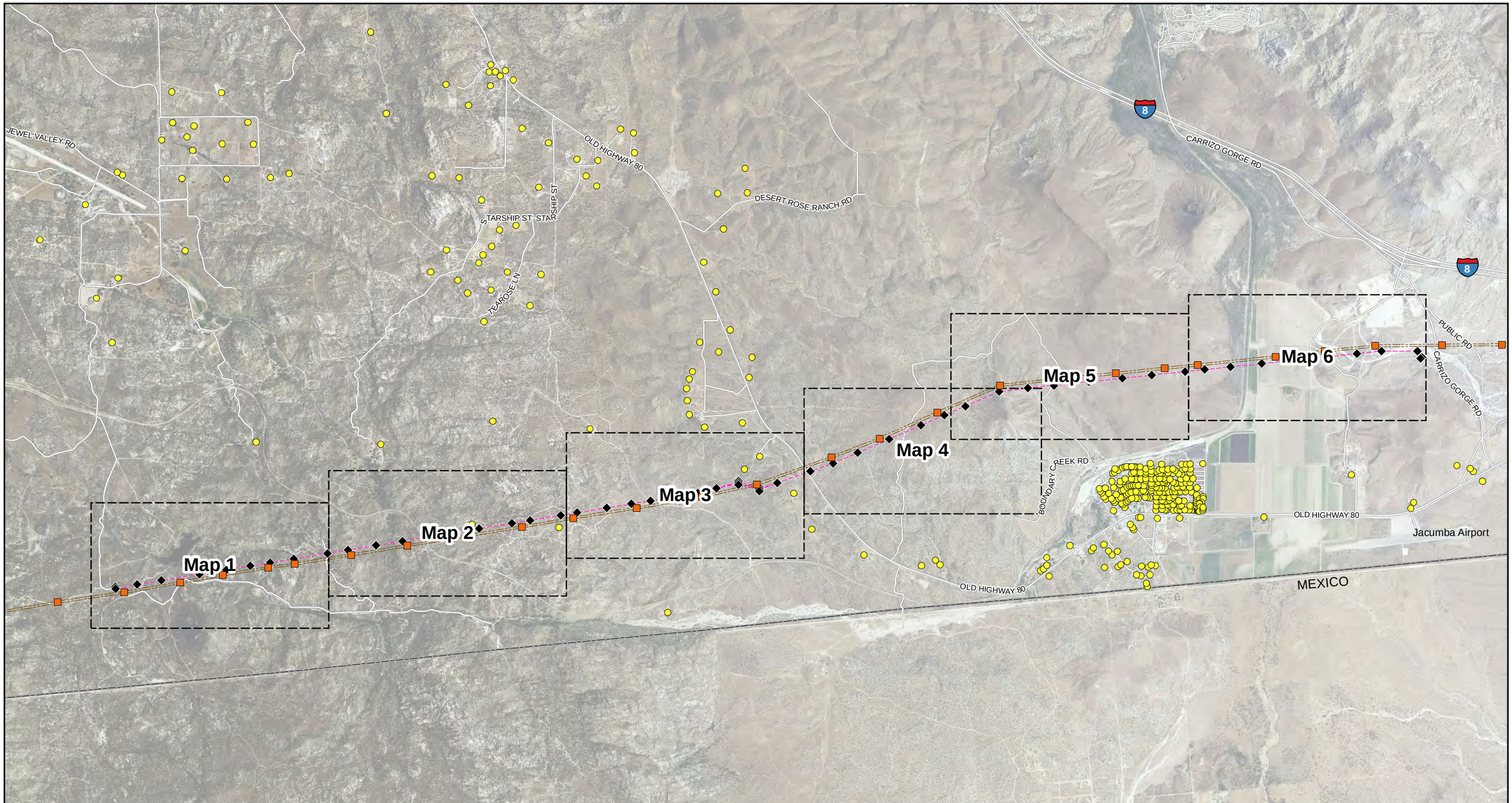
Location: 138 kV Overhead Transmission Line

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Fire and Fuel	FF-03	01	Provide assistance to San Diego Rural Fire Protection District (SDRFPD) and San Diego County Fire Authority (SDCFA)	Provide assistance to SDRFPD and SDCFA to improve the response and firefighting effectiveness near electrical substations, transmission lines, and aerial infrastructure based on project fire risk and protection needs. Assistance by SDG&E shall include providing funding for one SDCFA Fire Code Specialist II position to enforce existing fire code requirements, including but not limited to implementing required fuel management requirements (e.g., defensible space), in priority areas to be identified by the SDCFA for the life of the project. All fuel management activities shall be in accordance with CEQA Guidelines Section 15304 (i), which indicates that the minor land alternation activities will not have a significant effect on the environment, as the activities will not result in the taking of endangered, rare, or threatened plant or animal species or significant erosion and sedimentation of surface waters. In addition, SDG&E is to provide funding to allow SDCFA to employ up to four volunteer/reserve firefighters as part-time code inspectors on a stipend basis for up to 90 days per year for the life of the project. The funding for the SDCFA Fire Code Specialist II position and the four volunteer/reserve firefighters as part-time code inspectors will be provided through proportional contributions, to be determined by CPUC and BLM, from SDG&E (and the other applicants) to the SDCFA prior to construction.	A signed MOU between the SDCFA and SDG&E, dated January 2013, was provided to the CPUC on January 28, 2013. SDG&E provided the first annual contribution to the SDCFA and submitted proof of payment to the CPUC on January 29, 2013. The CPUC concurred that the pre-construction components of this measure were satisfied on January 30, 2013. SDG&E provided an initial payment of $84,468 to the SDRFPD on September 11, 2013, and provided evidence of payment to the CPUC on September 25, 2013. The balance of the $116,600 will be made through two additional payments on November 15, 2013 and prior to energization. SDG&E will provide evidence of annual payments of $116,600 to the CPUC following every annual payment on the anniversary of the Initial Payment Date.	Pre and During	To Be Implemented During Construction
Fire and Fuel	FF-03	02	Provide assistance to San Diego Rural Fire Protection District (SDRFPD) and San Diego County Fire Authority (SDCFA)	A fixed annual fire mitigation fee of approximately $116,600 will be provided by SDG&E to SDRFPD for mitigation funding. The funding will be utilized to assist with the purchase and maintenance of a Type I engine with an aqueous film forming foam (AFF) apparatus with a deck gun to apply a heavy stream. In addition, the funding will be utilized to provide for a third volunteer stipend to staff the engine with firefighters and training for electrical firefighting for 10 personnel (2 per year on a 5-year rotation). The fire mitigation fee will be paid annually during the life of the project and terminated upon decommissioning of the substation and related facilities.	A signed Memorandum of Understanding (MOU) between the SDRFPD and SDG&E, dated November 2012, was provided to the CPUC on January 28, 2013. The MOU includes a payment schedule with the initial payment scheduled for six months following the commencement of construction and the annual payment of $116,600 scheduled on the annual anniversary of the initial payment date. SDG&E provided an initial payment of $84,468 to the SDRFPD on September 11, 2013, and provided evidence of payment to the CPUC on September 25, 2013. The balance of the $116,600 will be made through two additional payments on November 15, 2013 and prior to energization. SDG&E will provide evidence of annual payments of $116,600 to the CPUC following every annual payment on the anniversary of the Initial Payment Date.	Pre, During, and Post	To Be Implemented During Construction

Location: 138 kV Overhead Transmission Line

Measure Category Title	MMNo	TaskNo	Mitigation Measure	Task Text	Comments	Timing	Status
Fire and Fuel	FF-04	01	Customized Fire Protection Plan for Project	A draft Fire Protection Plan (FPP) will be submitted to CAL FIRE, SDRFPD, and SDCFA at least 90 days before the start of any construction activities. Comment on the draft FPP shall be provided to SDG&E and SDG&E shall resolve each comment in consultation with each responsible agency. The final FPP shall be approved by the CPUC prior to the initiation of construction activities. The FPP will include, at minimum, the following: · San Diego County FPP Content Requirements (http://www.sdcounty.ca.gov/dplu/docs/Fire-Report-Format.pdf) · Rural Fire Protection District Content Requirements: Provisions for fire safety and prevention; Water supply; Fire suppression/detection systems - built-in detection system with notification; Secondary containment; Site security and access; Emergency shut-down provisions · Integration into plans prepared to satisfy Mitigation Measures FF-1 and FF-2 The FPP will be incorporated into MM FF-1, the Construction Fire Prevention/Protection Plan, and MM FF-2, the Wildland Fire Prevention and Fire Safety Electric Standard Practice (2009)7 Operational Maintenance Plan. The Customized Fire Protection Plan will incorporate clarifications and additional ECO Substation Project APMs described in Section B of this EIR/EIS.	The SDRFPD approved the Fire Protection Plan on November 7, 2012. SDG&E submitted the SDRFPD-approved Fire Protection Plan to the CPUC with the SDRFPD approval letter on November 12, 2012. The CPUC provided comments on January 9, 2013. SDG&E provided responses to the CPUC's comments on January 16, 2013. SDG&E submitted SDCFA and CAL FIRE approval letters for the Fire Protection Plan to the CPUC on February 8, 2013. The Fire Protection Plan will be implemented following construction.	Pre, During, and Post	To Be Implemented Following Construction
Fire and Fuel	FF-06	01	Funding for FireSafe Council	Provide funding for Boulevard/Jacumba/La Posta FireSafe Council with a clarified focus of coordinating a Community Wildfire Protection Plan (CWPP) and Evacuation Plan. Funding for the Boulevard/Jacumba/La Posta FireSafe Council will enable this newly formed organization a means to proactively complete these plans, provisions for applying for grant funding, and ultimately, for implementing fuel reduction and evacuation plans. Funding will be a lump sum, one-time amount with SDG&E providing fair share of CWPP and Evacuation Plan preparation.	SDG&E submitted a proposal for funding the Boulevard/Jacumba/La Posta FireSafe Council to the CPUC on November 12, 2012. The CPUC received concurrence of the funding amount from the BLM on January 15, 2013. SDG&E submitted proof of payment to the FireSafe Council to the CPUC on January 24, 2013.	Pre	Complete
Fire and Fuel	FF-07	01	Preparation of Disturbed Area Revegetation Plan	All areas disturbed during construction activities that will not be continuously included in the long-term maintenance access right-of-way (ROW) will be provided native plant restoration in order to prevent non-native, weedy plants from establishing. Disturbed areas that will be included in the long-term maintenance program will not be revegetated as any plants that establish in these areas will be removed on an ongoing (at least annual) basis. Mitigation Measure FF-7 corresponds with Mitigation Measure Bio-1d and is not a duplicative plan but will be implemented under the biological monitoring program. It directs that the temporary disturbance areas will be revegetated with native plants common to the area through direction detailed in a Habitat Restoration Plan. The Habitat Restoration Plan will be prepared to restore native habitat and to reduce the potential for non-native plant establishment. The restoration plan will incorporate a Noxious Weeds and Invasive Species Control Plan to assist in restoring the construction area to the prior vegetated state and lessen the possibility of establishment of non-native, flammable plant species. A copy of the Revegetation Plan will be provided to the CPUC and BLM.	A memo stating that implementation of BIO-1d and BIO-3a will satisfy all requirements of FF-7 was approved by the CPUC on October 15, 2012. Refer to BIO-1d and BIO-3a for the status of these measures.	Pre, During, and Post	To Be Implemented During Construction

ATTACHMENT C: RESIDENTIAL LOCATIONS MAP



Attachment C: Residential Locations Overview Map

East County Substation Project

- Identified Residential Location
- 138 kV Pole
- 138 kV Overhead
- Existing SWPL Structure
- Existing SWPL Transmission Line

1:30,000

0 0.5 1 Miles

Z:\Projects\SDGE_ECO\MXDs\AdHoc\Residence_Overview.mxd

7/17/2013

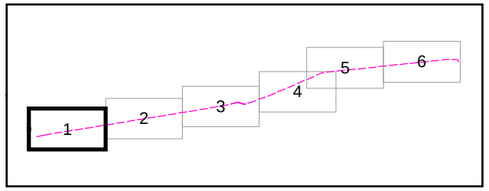
Lake Domingo

SP-38
RISER A
SP-38
RISER B
SP-39
SP-40
SP-41
SP-42
SP-43
SP-44
SP-45
SP-46

Attachment C: Residential Locations Map 1 of 6

East County Substation Project

- Identified Residential Location
- 138 kV Pole
- 138 kV Overhead
- Pad/New Access Road
- Existing SWPL Structure
- Existing SWPL Transmission Line



SDGE A Sempra Energy utility

INSIGNIA ENVIRONMENTAL

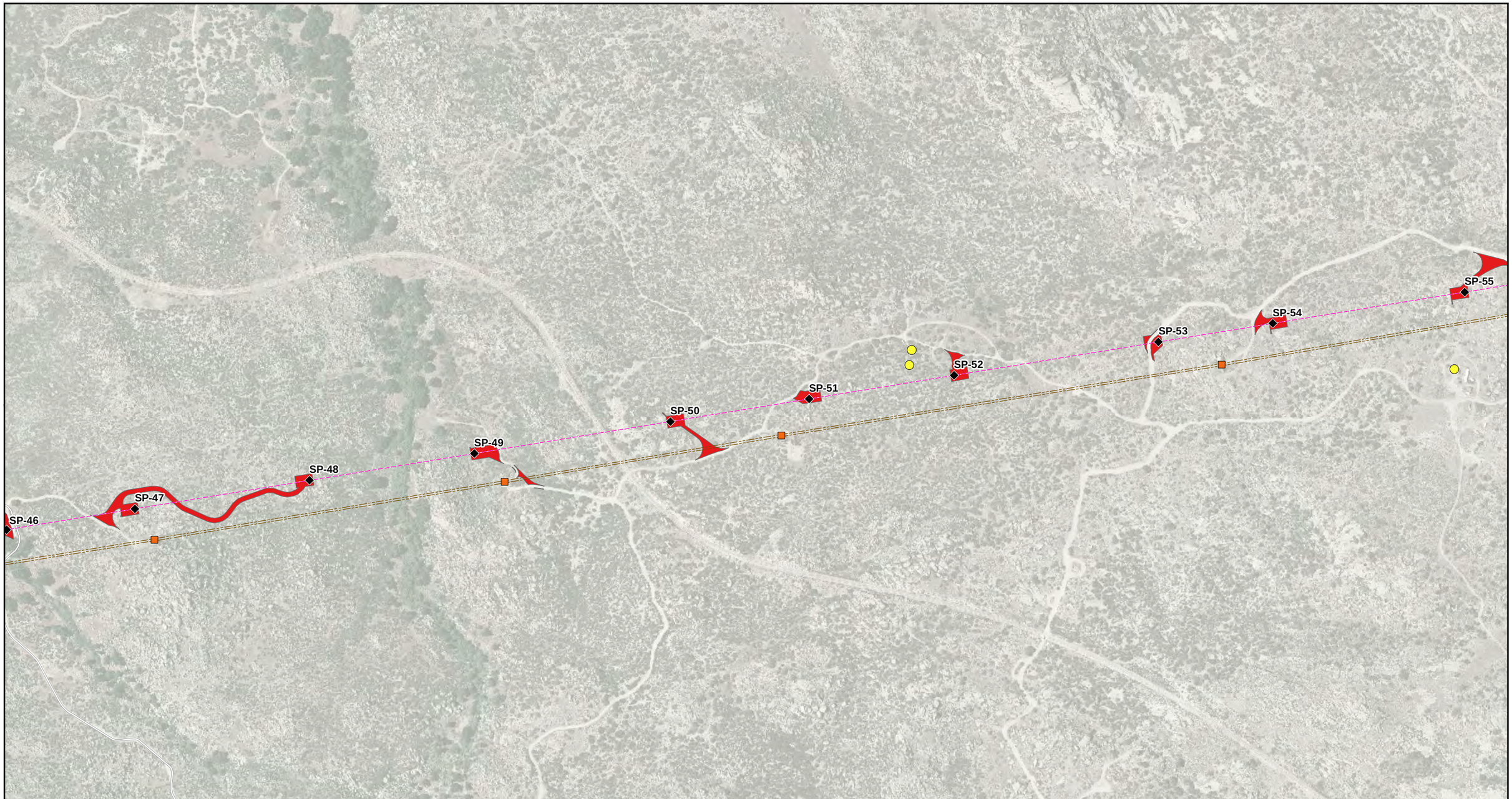
N W E S

1:4,800

0 250 500 1,000 Feet

Z:\Projects\SDGE_ECO\MXDs\AdHoc\Residence.mxd

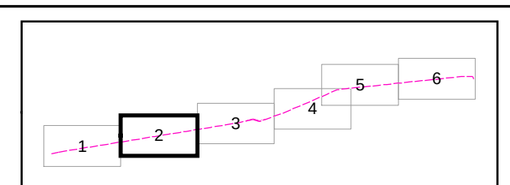
9/25/2013



Attachment C: Residential Locations Map 2 of 6

East County Substation Project

- Identified Residential Location
- 138 kV Pole
- 138 kV Overhead
- Pad/New Access Road
- Existing SWPL Structure
- Existing SWPL Transmission Line



SDGE A Sempra Energy utility

INSIGNIA ENVIRONMENTAL

1:4,800

0 250 500 1,000 Feet

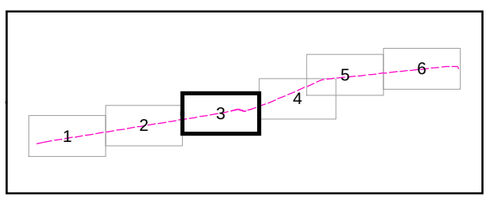
Z:\Projects\SDGE_ECO\MXDs\AdHoc\Residence.mxd

9/25/2013

Attachment C: Residential Locations Map 3 of 6

East County Substation Project

- Identified Residential Location
- 138 kV Pole
- 138 kV Overhead
- Pad/New Access Road
- Existing SWPL Structure
- Existing SWPL Transmission Line



1:4,800

0 250 500 1,000 Feet

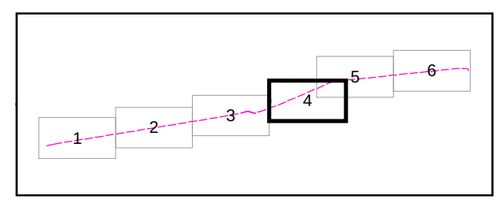
Z:\Projects\SDGE_ECO\MXDs\AdHoc\Residence.mxd

9/25/2013

Attachment C: Residential Locations Map 4 of 6

East County Substation Project

- Identified Residential Location
- 138 kV Pole
- 138 kV Overhead
- Pad/New Access Road
- Existing SWPL Structure
- Existing SWPL Transmission Line



SDGE A Sempra Energy utility

INSIGNIA ENVIRONMENTAL

N W E S

1:4,800

0 250 500 1,000 Feet

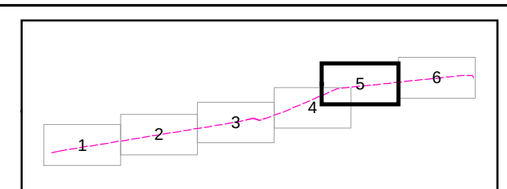
Z:\Projects\SDGE_ECO\MXDs\AdHoc\Residence.mxd

9/25/2013

Attachment C: Residential Locations Map 5 of 6

East County Substation Project

- Identified Residential Location
- 138 kV Pole
- 138 kV Overhead
- Pad/New Access Road
- Existing SWPL Structure
- Existing SWPL Transmission Line



SDGE A Sempra Energy utility

INSIGNIA ENVIRONMENTAL

N W E S

1:4,800

0 250 500 1,000 Feet

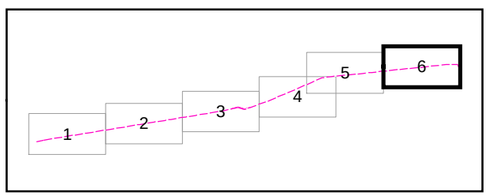
Z:\Projects\SDGE_ECO\MXDs\AdHoc\Residence.mxd

9/25/2013

Attachment C: Residential Locations Map 6 of 6

East County Substation Project

- Identified Residential Location
- 138 kV Pole
- 138 kV Overhead
- Pad/New Access Road
- Existing SWPL Structure
- Existing SWPL Transmission Line



SDGE A Sempra Energy utility

INSIGNIA ENVIRONMENTAL

N W E S

1:4,800

0 250 500 1,000 Feet

Z:\Projects\SDGE_ECO\MXDs\AdHoc\Residence.mxd

9/25/2013

ATTACHMENT D: CONDUCTOR PURCHASE ORDERS

4725 HWY 28 EAST
PINEVILLE, LA 71360
PH (318) 487-9599
FAX (318) 442-1741

Purchase Order

DATE REQUIRED: SEE NOTES

FREIGHT: FOB JOBSITE PREPAID & ALLOWED

P.O. #:	B567-T-D3
REVISION: 0	ORDER DATE: 1/09/13
REVISION: 1	DATE: 5/29/13
REVISION:	DATE:
REVISION:	DATE:
REVISION:	DATE:
SIGNED:	Andrew Tullos

TO: **Agile Sourcing Partners, Inc.**
2385 Railroad Avenue
Corona, California 92880

Attn: Maria Thompson

MARK: BETA ENGINEERING CALIFORNIA LP

SHIP TO: BETA ENGINEERING CALIFORNIA LP

ATTN: TODD LOUP

ITEM	QTY	DESCRIPTION	MANUFACTURER	CATALOG NUMBER	UNIT PRICE	EXTENDED PRICE
902	240,000	CONDUCTOR, 900 KCMIL ACSS/AW2, 54/7 STRAND, CODE NAME "CANARY" (NON-SPECULAR)			[redacted]	[redacted]
					Subtotal	[redacted]
					Sales Tax	[redacted]
				Total Purchase Order Amount		[redacted]

Notes to Equipment Vendor:

1. This order is in reference to Mid-State Quote 10195281-00 dated January 9, 2013.
2. Seller shall supply the cable on 17,000 foot reels. (+5/-4.5%)
3. ***Seller shall deliver the material to the jobsite near Boulevard, California by March 7, 2014. Deliveries will not be accepted before February 17, 2014.***

4725 HWY 28 EAST
PINEVILLE, LA 71360
PH (318) 487-9599

FAX (318) 442-1741

Purchase Order

DATE REQUIRED: SEE NOTES

FREIGHT: FOB JOBSITE PREPAY & ADD

P.O. #:	B567-T-D19
REVISION: 0	ORDER DATE: 06/05/13
REVISION:	DATE:
REVISION:	DATE:
REVISION:	DATE:
REVISION:	DATE:
REVISION:	DATE:
SIGNED:	Andrew Tullos

TO: **Agile Sourcing Partners, Inc.**
2385 Railroad Avenue
Corona, California 92880

Attn: Maria Thompson

MARK: BETA ENGINEERING CALIFORNIA LP
BOULEVARD TIE LINE 13844
BETA P.O. NO. B557-T-D19
DIS-TRAN FAB JOB # 12-3248P

SHIP TO: BETA ENGINEERING CALIFORNIA LP
BOULEVARD TIE LINE 13844
40749 OLD HWY 80
BOULEVARD, CA 91905
ATTN: TODD LOUP (318) 730-0790

ITEM	QTY	DESCRIPTION	MANUFACTURER	CATALOG NUMBER	UNIT PRICE	EXTENDED PRICE
	LOT	STEEL STRUCTURES FOR BOULEVARD TRANSMISSION LINE 13844	DIS-TRAN		[redacted]	[redacted]
		DULLING (SWEEP BLASTING) OF GALVANIZED SURFACES			[redacted]	[redacted]
					Sub-Total	[redacted]
					Sales Tax	[redacted]
				Total Purchase Order Amount		[redacted]

Notes to Equipment Vendor:

1. This purchase order is in reference to steel released under **Dis-Tran Job # 12-3248P.**
2. All steel structures shall be fabricated in accordance with Beta's steel detail drawings and SDG&E Specification S54 (attached).
3. Steel shall be hot dipped galvanized, then dulled by sweep blasting.
4. Structure design and steel details will be provided by Beta.

ATTACHMENT E: OBJECTS GROUNDED MEMO

Beta Engineering
4725 Highway 28 East
Pineville, LA 71360

phone 318.487.9599
fax 318.442.1741
betaengineering.com

TIE LINE 13844
SAN DIEGO GAS & ELECTRIC

BETA PROJECT NO. B567

TRANSMISSION LINE EXISTING ITEMS TO BE GROUNDED ALONG TL13844

BETA DOCUMENT NO. B567-TL-GP
REVISION 1
JUNE 6, 2013

BETA

EAST COUNTY SUBSTATION PROJECT DESIGN MEMORANDUM

TO: SAN DIEGO GAS & ELECTRIC CO. **DATE: JUNE 6, 2013**

BY: ROSS TWIDWELL, P.E.

SUBJECT: ITEMS TO BE GROUNDED ALONG TL13844

Beta has completed a walkthrough of the TL13844 corridor to identify items that may require grounding. The following table is a summary of the items that were found along the overhead ROW, the distance from the centerline of the alignment, the geographic location, and what grounding is required, if necessary. During the walkthrough, there were not any objects identified within the underground alignment that required grounding.

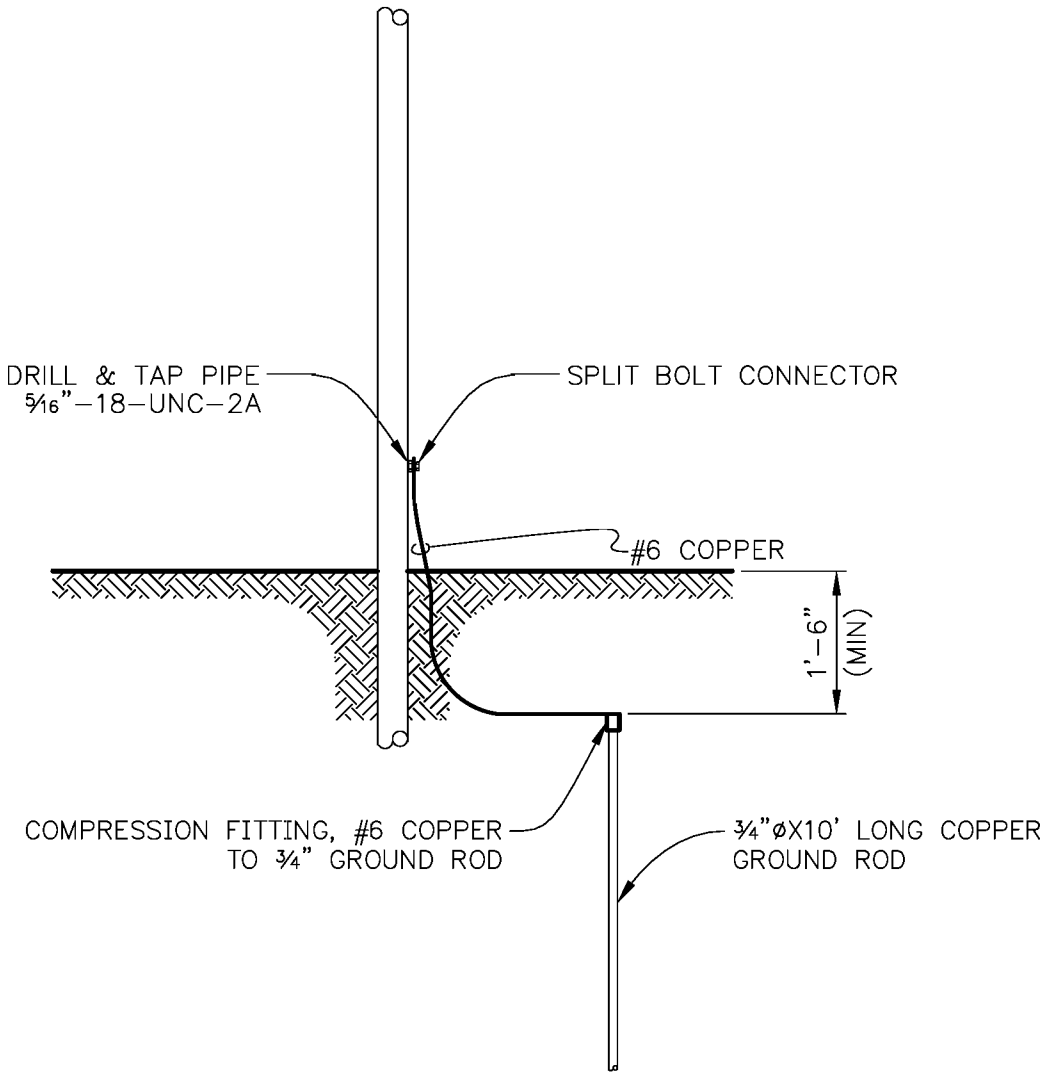
Table 1 - Items to be Grounded

Description	Between Structures		Dist. To Alignment (ft.)	Lat.	Long	Ground Detail	Picture
3" Galv. steel fence post	SP-38	SP-39	80	32.6121333	-116.2760667	No Grd.	N/A
(2) CMP 48" x 20'	SP-40	SP-41	11	32.6130000	-116.2713500	No Grd.	N/A
Fence Line Start	SP-45	SP-46	Crosses Under	32.6142500	-116.2608333	1 or 3	N/A
Fence Line End	SP-45	SP-46	Crosses Under	32.6145833	-116.2607833	1 or 3	N/A
(2) 1/2" Galv. Steel pipe	SP-45	SP-46	22	32.6147167	-116.2594667	1 or 2	N/A
Cistern	SP-51	SP-52	14	32.6164667	-116.2466500	No Grd.	N/A
Metal Trough	SP-51	SP-52	14	32.6164667	-116.2466500	3	1
Electrical Panel	SP-51	SP-52	7	32.6165000	-116.2462000	No Grd.	2
Capped Well	SP-51	SP-52	7	32.6165000	-116.2462000	2	3
Clothes Line	SP-51	SP-52	20	32.6165667	-116.2459833	1	4
Gas Cylinders	SP-51	SP-52	40	32.6166500	-116.2458333	3	5
Picnic area (17 supports)	SP-51	SP-52	40	32.6166833	-116.2455833	4	6&7
Small Lattice Tower 1	SP-51	SP-52	80	32.6166833	-116.2463833	No Grd.	8
CMP 18"x20'	SP-52	SP-53	10	32.6167667	-116.2444833	No Grd.	N/A
Small Lattice Tower 2	SP-52	SP-53	140	32.6170667	-116.2448167	No Grd.	N/A
Fence (west of railroad)	SP-49	SP-50	Crosses Under	32.6158962	-116.2504929	1 or 3	N/A
Fence (east of railroad)	SP-49	SP-50	Crosses Under	32.6159914	-116.2498026	1 or 3	N/A
Fence (west most)	SP-83	SP-84	Crosses Under	32.6283833	-116.1807167	1 or 3	N/A
2nd Fence	SP-83	SP-84	Crosses Under	32.6282500	-116.1799167	1 or 3	N/A
3rd Fence (east most)	SP-83	SP-84	Crosses Under	32.6282500	-116.1796167	1 or 3	N/A

Respectfully,

Ross Twidwell, P.E.

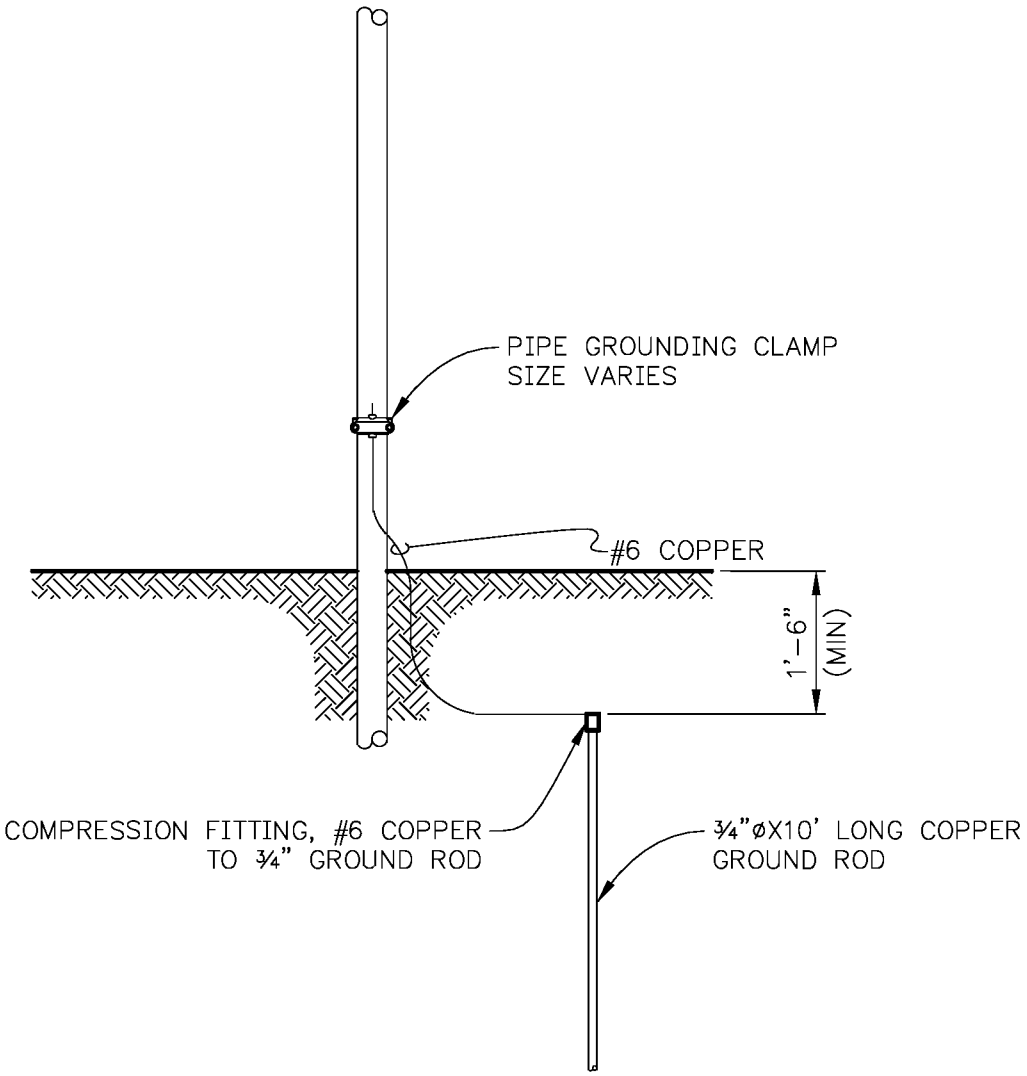
Job Name	TL13844	Job No.	B567-OH
Customer	SDG&E	Date	1/7/12
Designer	CRL	Sheet	



DETAIL 1

POST GROUNDING

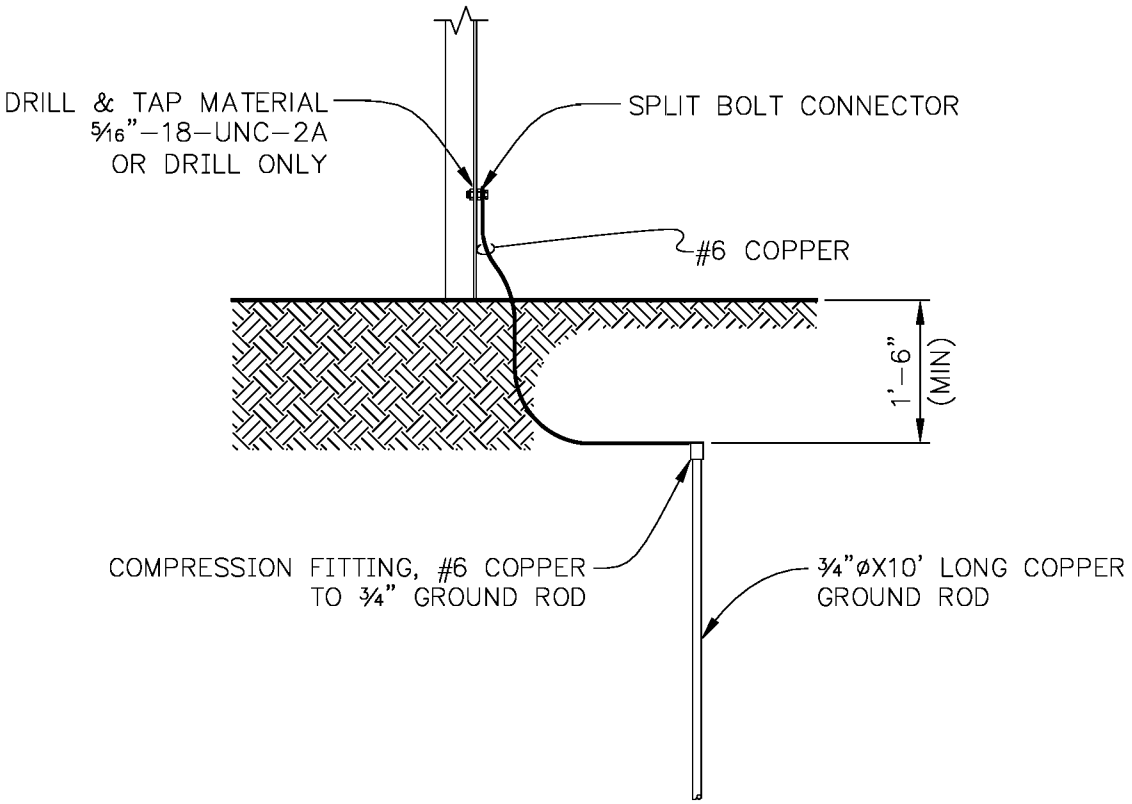
BETA	Job Name TL13844	Job No. B567-OH	
	Customer SDG&E	Date 1/7/12	
	Designer CRL	Sheet	



DETAIL 2

POST GROUNDING
(USE WHEN POST CANNOT BE DRILLED)

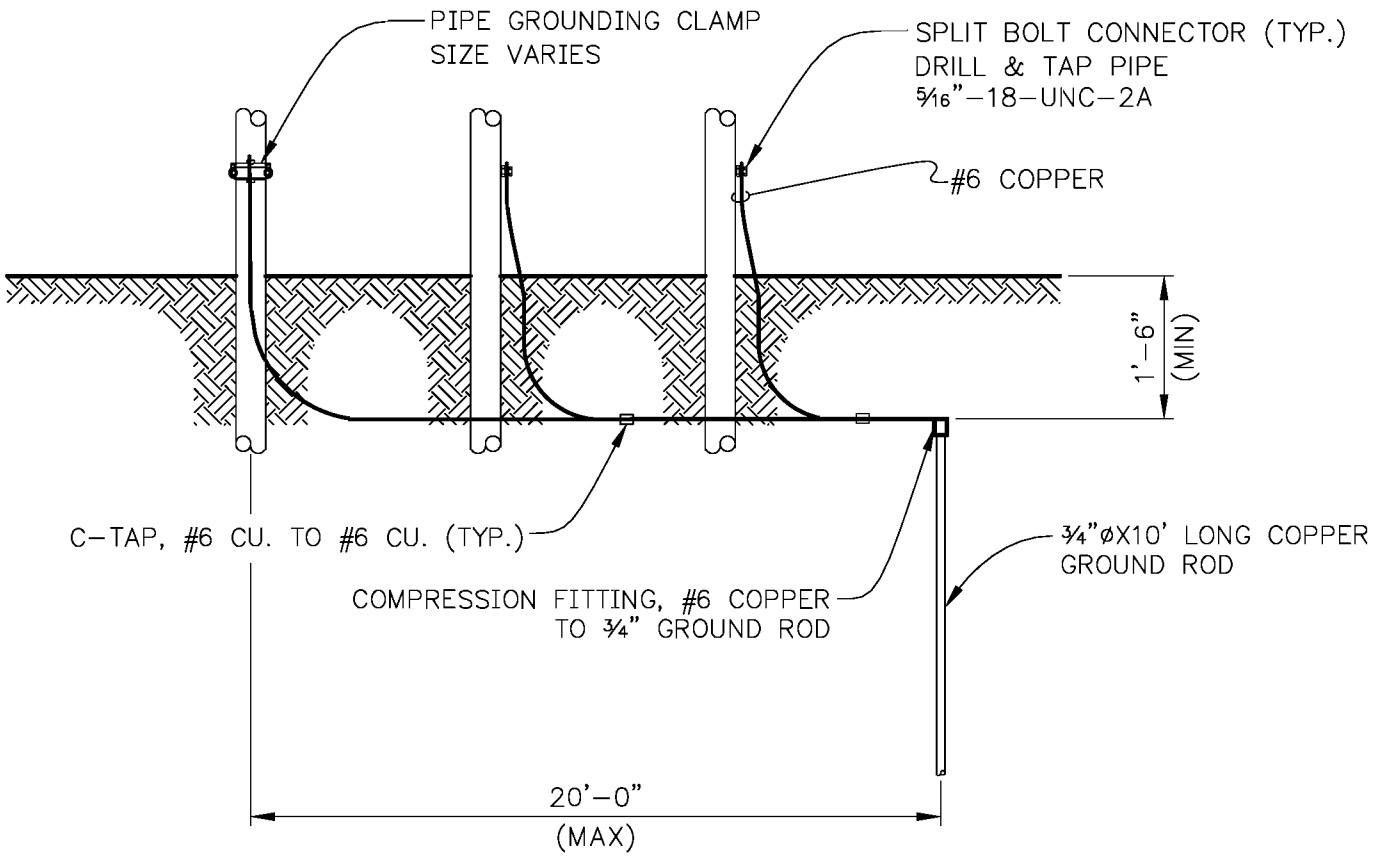
BETA	Job Name TL13844	Job No. B567-OH	
	Customer SDG&E	Date 1/7/12	
	Designer CRL	Sheet	



DETAIL 3

FLAT SURFACE GROUNDING DETAIL

BETA	Job Name TL13844	Job No. B567-OH	
	Customer SDG&E	Date 1/7/12	
	Designer CRL	Sheet	



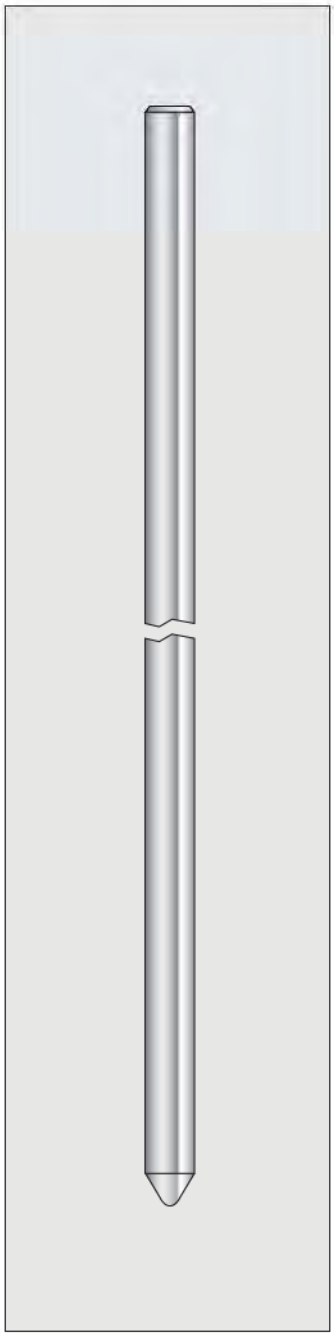
DETAIL 4

CLUSTER GROUNDING DETAIL

Ground Electrodes

Copperbonded Pointed Ground Rods

- Copper is molecularly bonded to nickel-sealed high-strength steel cores.
- ERITECH® brand of ground rods from ERICO provide the company name, length, diameter, part number, roll-stamped within 12" of chamfered end and the UL® logo and control number where applicable on each rod for easy inspection after installation.
- See specifications on page 69.



Part No.	Plating Thickness (ml.)	Diameter (in.)	Length (ft.)
613852	5	3/8	5
613862	5	3/8	6
613880	10	3/8	8
611255	5	Nom. 1/2	5
611265	5	Nom. 1/2	6
611285	5	Nom. 1/2	8
611380*	10	1/2	8
611205	5	Nom. 1/2	10
611300*	10	1/2	10
615850	10	5/8	5
615860	10	5/8	6
615880*	10	5/8	8
615883*	13 - RUS	5/8	8
615800*	10	5/8	10
615803*	13 - RUS	5/8	10
615812*	10	5/8	12
615815*	10	5/8	15
613460	10	3/4	6
613480*	10	3/4	8
613483*	13 - RUS	3/4	8
613400*	10	3/4	10
613412*	10	3/4	12
613415*	10	3/4	15
614400*	10	1	10

*UL Listed rods

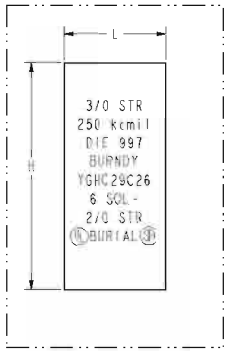
DRAWING NO
SD086223-01

REV	DATE	DESCRIPTION	ECO	BY	CHK'D
G	08/16/2011	[illegible]	DEST IT	MHB	MA

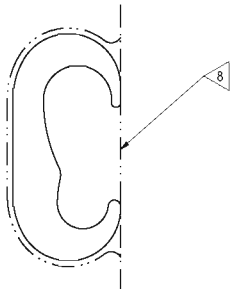
CATALOG NUMBER	COMMERCIAL COPPER CABLE RANGE / GROUND ROD TO COPPER CABLE		METRIC COPPER CABLE RANGE		H	L	INSTALLATION DATA				
	RUN	TAP	RUN	TAP			DIE INDEX NO.	Y750/Y35 Y39 HYPRESS™	Y45 HYPRESS™ 3	Y46 HYPRESS™ 4	NO. OF CRIMPS
YGHC2C2	#6 SOL. (Ø.162) - #2 STR. (Ø.292) 1/4" ROD 13 15	#6 SOL. (Ø.162) - #2 STR. (Ø.292)	10 mm (Ø4.1 mm) 35 mm (Ø7.6 mm)	10 mm (Ø4.1 mm) 35 mm (Ø7.6 mm)	1.16 [30]	.75 [19]	C	U-C	U-C	U-C	1
YGHC26C2	1 STR. (Ø.328) - 2/0 STR. (Ø.419) 3/8" ROD 13 15	#6 SOL. (Ø.162) - #2 STR. (Ø.292)	35 mm (Ø7.6 mm) 70 mm (Ø10.9 mm)	10 mm (Ø4.1 mm) 35 mm (Ø7.6 mm)	1.41 [36]	.75 [19]	O	U-O	U-O	U-O	1
YGHC26C26	1 STR. (Ø.328) - 2/0 STR. (Ø.419) 3/8" ROD 13 15	1 STR. (Ø.328) - 2/0 STR. (Ø.419)	35 mm (Ø7.6 mm) 70 mm (Ø10.9 mm)	35 mm (Ø7.6 mm) 70 mm (Ø10.9 mm)	1.54 [39]	.75 [19]	O	U-O	U-O	U-O	1
YGHC29C26	3/0 STR. (Ø.470) - 250 kcmil (Ø.575) 1/2" OR 5/8" ROD 13 15	#6 SOL. (Ø.162) - 2/0 STR. (Ø.419)	95 mm (Ø12.5 mm) 120 mm (Ø14.4 mm)	10 mm (Ø4.1 mm) 70 mm (Ø10.9 mm)	1.97 [50]	.75 [19]	997	U997	U997	U997	1
YGHC29C29	3/0 STR. (Ø.470) - 250 kcmil (Ø.575) 1/2" OR 5/8" ROD 13 15	3/0 STR. (Ø.470) - 250 kcmil (Ø.575)	95 mm (Ø12.5 mm) 120 mm (Ø14.4 mm)	95 mm (Ø12.5 mm) 120 mm (Ø14.4 mm)	2.06 [52]	.86 [22]	997	U997	U997	U997	1
YGHC34C26 10	300 kcmil (Ø.630) - 500 kcmil (Ø.813) 3/4" ROD 13 15	#6 SOL. (Ø.162) - 2/0 STR. (Ø.419)	150 mm (Ø16 mm) 240 mm (Ø20.3 mm)	10 mm (Ø4.1 mm) 70 mm (Ø10.9 mm)	2.42 [62]	.86 [22]	1011	U1011 10	S1011	P1011	2
YGHC34C29 10	300 kcmil (Ø.630) - 500 kcmil (Ø.813)	3/0 STR. (Ø.470) - 250 kcmil (Ø.575)	150 mm (Ø16 mm) 240 mm (Ø20.3 mm)	95 mm (Ø12.5 mm) 120 mm (Ø14.4 mm)	2.67 [68]	.86 [22]	1011	U1011 10	S1011	P1011	2
YGHC34C34 10	300 kcmil (Ø.630) - 500 kcmil (Ø.813)	300 kcmil (Ø.630) - 500 kcmil (Ø.813)	150 mm (Ø16 mm) 240 mm (Ø20.3 mm)	150 mm (Ø16 mm) 240 mm (Ø20.3 mm)	2.91 [74]	1.10 [28]	1011	U1011 10	S1011	P1011	3

NOTES:

1. MATERIAL: COPPER
2. GROOVES ARE PREFILLED WITH PENETROX™ "E".
3. WHERE A "U" OR "PU" IS RECOMMENDED WITH THE Y45 HYPRESS™, A PT6515 ADAPTER MUST BE USED.
4. WHERE A "U" OR "PU" IS RECOMMENDED WITH THE Y46 HYPRESS™, A P-MADP ADAPTER MUST BE USED.
5. LISTED UNDER UL486A FOR COPPER WIRE CONNECTORS.
6. SUITABLE FOR DIRECT BURIAL IN EARTH OR CONCRETE.
7. DIMENSIONS IN BRACKETS [ ] ARE IN MILLIMETERS.
8. CONNECTORS ARE INDIVIDUALLY SEALED IN CLEAR POLYETHELENE SHEET.
9. IN REFERENCING CONNECTORS WITHOUT PENETROX™ OXIDE INHIBITOR ADD SUFFIX "NP" TO THE END OF THE CATALOG NUMBER.
10. THESE CONNECTORS CAN ONLY BE INSTALLED USING THE Y750, Y45 OR Y46 HYPRESS™ WITH THE RECOMMENDED DIES. THESE CONNECTORS CAN NOT BE INSTALLED WITH THE Y35 AND Y39 HYPRESS™.
11. FOR ELECTRO-TIN PLATED CONNECTOR, ADD SUFFIX "TN" TO THE CATALOG NUMBER. GROOVES ARE FILLED WITH PENETROX™ G12A.
12. UL LISTED TO UL467 (GROUNDING AND BONDING) FOR CONDUCTOR TO CONDUCTOR APPLICATIONS.
13. THESE CONNECTORS UL LISTED TO UL467 (GROUNDING AND BONDING) FOR CONDUCTOR TO GROUND ROD APPLICATIONS.
14. CSA CERTIFIED TO C22.2 NO 41 (GROUNDING AND BONDING) FOR CONDUCTOR TO CONDUCTOR APPLICATIONS.
15. THESE CONNECTORS CSA CERTIFIED TO C22.2 NO. 41 (GROUNDING AND BONDING) FOR CONDUCTOR TO GROUND ROD APPLICATIONS.
16. AS A FINAL CHECK AFTER COMPRESSION, BE SURE THE DIE EMBOSSES THE SAME DIE INDEX REFERENCE ON THE FACE OF THE COMPRESSED AREA AS APPEARS ON THE BODY OF THE CONNECTOR.



TYPICAL LETTERING



TO ORDER BURNDY® PRODUCTS CALL

UNITED STATES
1-800-346-4175 (LONDONDERRY, NH)

CANADA:
1-800-361-6975 (QUEBEC)
1-800-387-6467 (ALL OTHER PROVINCES)

FOR PRODUCT INFO: http://www.burndy.com

CONNECTOR, COMPRESSION GROUND

ITEM NO:	N/A	
CAT. NO:	YGHC--C-- (TABLE)	
DRAWN BY:	H.C.	12/08/92
CHECKED:	E.A.N.	12/08/92
QSA APPVL:	FSK	09/07/93
MFG APPVL:	RDL	09/07/93
QA APPVL:	A.LLOYD	08/31/92
MKT APPVL:	D.HAMILTON	07/31/02

BURNDY

PROD FAM:	—	SIZE	DRAWING NO	REV
PROJECT #:	—		SD086223-01	G
DOCUMENT TYPE:	Sales	D	SHEET 1 OF 1	
REL LEVEL:	Released			

SCALE: NTS

REV: PE9200

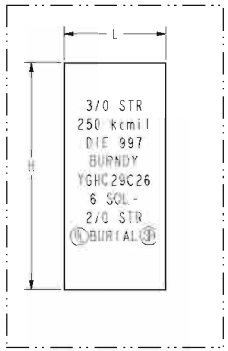
DRAWING NO
SD086223-01

REV	DATE	DESCRIPTION	ECO	BY	CHK'D
G	08/16/2011	[illegible]	DEST'T	MHD	MA

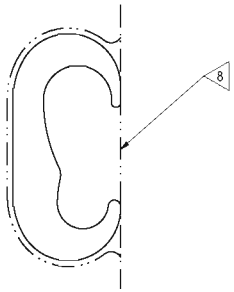
CATALOG NUMBER	COMMERCIAL COPPER CABLE RANGE / GROUND ROD TO COPPER CABLE: RUN	COMMERCIAL COPPER CABLE RANGE / GROUND ROD TO COPPER CABLE: TAP	METRIC COPPER CABLE RANGE: RUN	METRIC COPPER CABLE RANGE: TAP	H	L	INSTALLATION DATA: DIE INDEX NO.	Y750/Y35 Y39 HYPRESS™	Y45 HYPRESS™ 3	Y46 HYPRESS™ 4	NO. OF CRIMPS
YGHC2C2	#6 SOL. (Ø.162) - #2 STR. (Ø.292) 1/4" ROD 13 15	#6 SOL. (Ø.162) - #2 STR. (Ø.292)	10 mm (Ø4.1 mm) 35 mm (Ø7.6 mm)	10 mm (Ø4.1 mm) 35 mm (Ø7.6 mm)	1.16 [30]	.75 [19]	C	U-C	U-C	U-C	1
YGHC26C2	1 STR. (Ø.328) - 2/0 STR. (Ø.419) 3/8" ROD 13 15	#6 SOL. (Ø.162) - #2 STR. (Ø.292)	35 mm (Ø7.6 mm) 70 mm (Ø10.9 mm)	10 mm (Ø4.1 mm) 35 mm (Ø7.6 mm)	1.41 [36]	.75 [19]	O	U-O	U-O	U-O	1
YGHC26C26	1 STR. (Ø.328) - 2/0 STR. (Ø.419) 3/8" ROD	1 STR. (Ø.328) - 2/0 STR. (Ø.419)	35 mm (Ø7.6 mm) 70 mm (Ø10.9 mm)	35 mm (Ø7.6 mm) 70 mm (Ø10.9 mm)	1.54 [39]	.75 [19]	O	U-O	U-O	U-O	1
YGHC29C26	3/0 STR. (Ø.470) - 250 kcmil (Ø.575) 1/2" OR 5/8" ROD 13 15	#6 SOL. (Ø.162) - 2/0 STR. (Ø.419)	95 mm (Ø12.5 mm) 120 mm (Ø14.4 mm)	10 mm (Ø4.1 mm) 70 mm (Ø10.9 mm)	1.97 [50]	.75 [19]	997	U997	U997	U997	1
YGHC29C29	3/0 STR. (Ø.470) - 250 kcmil (Ø.575) 1/2" OR 5/8" ROD 13 15	3/0 STR. (Ø.470) - 250 kcmil (Ø.575)	95 mm (Ø12.5 mm) 120 mm (Ø14.4 mm)	95 mm (Ø12.5 mm) 120 mm (Ø14.4 mm)	2.06 [52]	.86 [22]	997	U997	U997	U997	1
YGHC34C26 10	300 kcmil (Ø.630) - 500 kcmil (Ø.813) 3/4" ROD 13 15	#6 SOL. (Ø.162) - 2/0 STR. (Ø.419)	150 mm (Ø16 mm) 240 mm (Ø20.3 mm)	10 mm (Ø4.1 mm) 70 mm (Ø10.9 mm)	2.42 [62]	.86 [22]	1011	U1011 10	S1011	P1011	2
YGHC34C29 10	300 kcmil (Ø.630) - 500 kcmil (Ø.813)	3/0 STR. (Ø.470) - 250 kcmil (Ø.575)	150 mm (Ø16 mm) 240 mm (Ø20.3 mm)	95 mm (Ø12.5 mm) 120 mm (Ø14.4 mm)	2.67 [68]	.86 [22]	1011	U1011 10	S1011	P1011	2
YGHC34C34 10	300 kcmil (Ø.630) - 500 kcmil (Ø.813)	300 kcmil (Ø.630) - 500 kcmil (Ø.813)	150 mm (Ø16 mm) 240 mm (Ø20.3 mm)	150 mm (Ø16 mm) 240 mm (Ø20.3 mm)	2.91 [74]	1.10 [28]	1011	U1011 10	S1011	P1011	3

NOTES:

1. MATERIAL: COPPER
2. GROOVES ARE PREFILLED WITH PENETROX™ "E".
3. WHERE A "U" OR "PU" IS RECOMMENDED WITH THE Y45 HYPRESS™, A PT6515 ADAPTER MUST BE USED.
4. WHERE A "U" OR "PU" IS RECOMMENDED WITH THE Y46 HYPRESS™, A P-MADP ADAPTER MUST BE USED.
5. LISTED UNDER UL486A FOR COPPER WIRE CONNECTORS.
6. SUITABLE FOR DIRECT BURIAL IN EARTH OR CONCRETE.
7. DIMENSIONS IN BRACKETS [ ] ARE IN MILLIMETERS.
8. CONNECTORS ARE INDIVIDUALLY SEALED IN CLEAR POLYETHELENE SHEET.
9. IN REFERENCING CONNECTORS WITHOUT PENETROX™ OXIDE INHIBITOR ADD SUFFIX "NP" TO THE END OF THE CATALOG NUMBER.
10. THESE CONNECTORS CAN ONLY BE INSTALLED USING THE Y750, Y45 OR Y46 HYPRESS™ WITH THE RECOMMENDED DIES. THESE CONNECTORS CAN NOT BE INSTALLED WITH THE Y35 AND Y39 HYPRESS™.
11. FOR ELECTRO-TIN PLATED CONNECTOR, ADD SUFFIX "TN" TO THE CATALOG NUMBER. GROOVES ARE FILLED WITH PENETROX™ G12A.
12. UL LISTED TO UL467 (GROUNDING AND BONDING) FOR CONDUCTOR TO CONDUCTOR APPLICATIONS.
13. THESE CONNECTORS UL LISTED TO UL467 (GROUNDING AND BONDING) FOR CONDUCTOR TO GROUND ROD APPLICATIONS.
14. CSA CERTIFIED TO C22.2 NO 41 (GROUNDING AND BONDING) FOR CONDUCTOR TO CONDUCTOR APPLICATIONS.
15. THESE CONNECTORS CSA CERTIFIED TO C22.2 NO. 41 (GROUNDING AND BONDING) FOR CONDUCTOR TO GROUND ROD APPLICATIONS.
16. AS A FINAL CHECK AFTER COMPRESSION, BE SURE THE DIE EMBOSSES THE SAME DIE INDEX REFERENCE ON THE FACE OF THE COMPRESSED AREA AS APPEARS ON THE BODY OF THE CONNECTOR.



TYPICAL LETTERING



TO ORDER BURNDY® PRODUCTS CALL

UNITED STATES
1-800-346-4175 (LONDONDERRY, NH)

CANADA:
1-800-361-6975 (QUEBEC)
1-800-387-6467 (ALL OTHER PROVINCES)

FOR PRODUCT INFO: http://www.burndy.com

CONNECTOR, COMPRESSION GROUND

ITEM NO:	N/A	
CAT. NO:	YGHC--C-- (TABLE)	
DRAWN BY:	H.C.	12/08/92
CHECKED:	E.A.N.	12/08/92
QSA APPVL:	CSR	09/07/93
MFG APPVL:	RDL	09/07/93
QA APPVL:	A.LLOYD	08/31/92
MKT APPVL:	D.HAMILTON	07/31/02
PROD FAM:	—	
PROJECT #:	—	
DOCUMENT TYPE:	Sales	
REL LEVEL:	Released	

BURNDY

SCALE: NTS

SIZE: D

DRAWING NO: SD086223-01

REV: G

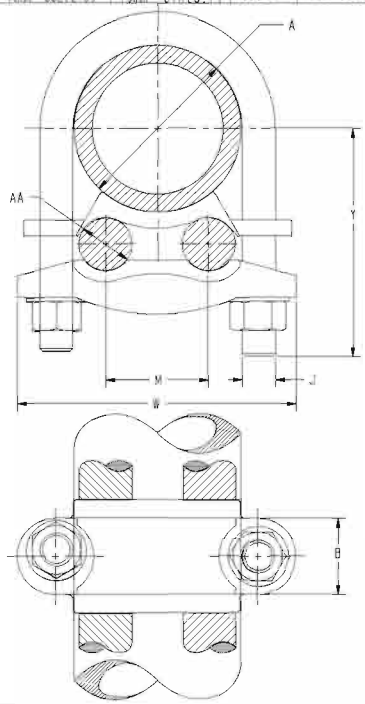
SHEET 1 OF 1

REV: PE9200

DRAWING NO
SD013775

REV	DATE	DESCRIPTION	ECO	BY	C'H'K
C	10/31/2011 08:31:00 AM	[illegible]	29180	MJ	NG

CONDUCTORS ACCOMMODATED																	
A					AA												
I.P.S. PIPE			ROD		AWG		METRIC WIRE SIZE		CATALOG NUMBER	B	J	M	W	Y	"U" BOLT	TORQUE Lb-in [N-m]
NOMINAL DIAMETER (in)	ACTUAL DIA. (in)	ACTUAL DIA. (mm)	NOMINAL DIAMETER (in)	ACTUAL DIAMETER (in)	ACTUAL DIAMETER (mm)	MIN	MAX	MIN	MAX								
1"	1.315	[33]	1 1/8" OR 1 1/4"	1.125 OR 1.25	[29] OR [32]	#8 SOL(.128 DIA)	#4 STR(.232 DIA)	10mm² SOL[2.6]	16mm² STR[5.1]	GD154C	1.13 [29]	3/8" [10]	.69 [18]	2.63 [67]	2.25 [57]	244	240 [27.0]
1"	1.315	[33]	1 1/8" OR 1 1/4"	1.125 OR 1.25	[29] OR [32]	#4 SOL(.204 DIA)	2/0 STR(.416 DIA)	25mm² STR[6.5]	50mm² STR[9.3]	GD1526	1.13 [29]	3/8" [10]	.69 [18]	2.63 [67]	2.25 [57]	244	240 [27.0]
1"	1.315	[33]	1 1/8" OR 1 1/4"	1.125 OR 1.25	[29] OR [32]	2/0 SOL(.365 DIA)	250 Kcmil(.575 DIA)	70mm² STR[10.9]	95mm² STR[12.8]	GD1529	1.13 [29]	3/8" [10]	.69 [18]	2.63 [67]	2.25 [57]	244	240 [27.0]
1 1/4"	1.660	[42]	1 3/8" OR 1 1/4"	.375 OR 1.125	[35] OR [29]	#8 SOL(.128 DIA)	#4 STR(.232 DIA)	16mm² STR[5.1]	16mm² STR[5.1]	GD164C	1.25 [32]	3/8" [10]	1.13 [29]	3.00 [76]	2.25 [57]	204	240 [27.0]
1 1/4"	1.660	[42]	1 3/8" OR 1 1/4"	.375 OR 1.125	[35] OR [29]	#4 SOL(.204 DIA)	2/0 STR(.416 DIA)	25mm² STR[6.5]	50mm² STR[9.3]	GD1626	1.25 [32]	3/8" [10]	1.13 [29]	3.00 [76]	2.25 [57]	204	240 [27.0]
1 1/4"	1.660	[42]	1 3/8" OR 1 1/4"	.375 OR 1.125	[35] OR [29]	2/0 SOL(.365 DIA)	250 Kcmil(.575 DIA)	70mm² STR[10.9]	120mm² STR[14.4]	GD1629	1.31 [33]	3/8" [10]	1.00 [25]	3.25 [83]	2.25 [57]	268	240 [27.0]
1 1/2"	1.900	[48]	1 5/8" OR 1 7/8"	.625 OR 1.875	[41] OR [48]	#8 SOL(.128 DIA)	#4 STR(.232 DIA)	10mm² SOL[2.6]	16mm² STR[5.1]	GD174C	1.31 [33]	3/8" [10]	1.19 [30]	3.25 [83]	2.63 [67]	268	240 [27.0]
1 1/2"	1.900	[48]	1 5/8" OR 1 7/8"	.625 OR 1.875	[41] OR [48]	#4 SOL(.204 DIA)	2/0 STR(.416 DIA)	25mm² STR[6.5]	50mm² STR[9.3]	GD1726	1.31 [33]	3/8" [10]	1.25 [32]	3.25 [83]	2.63 [67]	268	240 [27.0]
1 1/2"	1.900	[48]	1 5/8" OR 1 7/8"	.625 OR 1.875	[41] OR [48]	2/0 SOL(.365 DIA)	250 Kcmil(.575 DIA)	70mm² STR[10.9]	120mm² STR[14.4]	GD1729	1.31 [33]	3/8" [10]	1.19 [30]	3.25 [83]	2.63 [67]	268	240 [27.0]
1 1/2"	1.900	[48]	1 5/8" OR 1 7/8"	.625 OR 1.875	[41] OR [48]	300 kcmil (.630 DIA)	500 Kcmil(.814 DIA)	185mm² STR[17.8]	240mm² STR[20.3]	GD1734	1.56 [40]	1/2" [13]	1.00 [25]	3.38 [86]	3.13 [80]	302	480 [54.1]
2"	2.375	[60]	2"	2.00	[51]	#8 SOL(.128 DIA)	#4 STR(.232 DIA)	10mm² SOL[2.6]	16mm² STR[5.1]	GD184C	1.31 [33]	3/8" [10]	1.88 [48]	3.69 [94]	2.56 [65]	259	240 [27.0]
2"	2.375	[60]	2"	2.00	[51]	#4 SOL(.204 DIA)	2/0 STR(.416 DIA)	25mm² STR[6.5]	50mm² STR[9.3]	GD1826	1.31 [33]	3/8" [10]	1.69 [43]	3.69 [94]	2.56 [65]	257	240 [27.0]
2"	2.375	[60]	2"	2.00	[51]	2/0 SOL(.365 DIA)	250 Kcmil(.575 DIA)	70mm² STR[10.9]	120mm² STR[14.4]	GD1829	1.31 [33]	3/8" [10]	1.69 [43]	3.69 [94]	2.56 [65]	257	240 [27.0]
2"	2.375	[60]	2"	2.00	[51]	300 kcmil (.630 DIA)	500 Kcmil(.814 DIA)	185mm² STR[17.8]	240mm² STR[20.3]	GD1834	1.56 [40]	1/2" [13]	1.50 [38]	4.06 [103]	3.63 [92]	260	480 [54.1]
2 1/2"	2.875	[73]	2 1/2"	2.50	[64]	#8 SOL(.128 DIA)	#4 STR(.232 DIA)	10mm² SOL[2.6]	16mm² STR[5.1]	GD194C	1.38 [35]	3/8" [10]	2.31 [59]	4.19 [106]	3.13 [80]	266	240 [27.0]
2 1/2"	2.875	[73]	2 1/2"	2.50	[64]	#4 SOL(.204 DIA)	2/0 STR(.416 DIA)	25mm² STR[6.5]	50mm² STR[9.3]	GD1826	1.38 [35]	3/8" [10]	2.63 [67]	4.19 [106]	3.13 [80]	266	240 [27.0]
2 1/2"	2.875	[73]	2 1/2"	2.50	[64]	2/0 SOL(.365 DIA)	250 Kcmil(.575 DIA)	70mm² STR[10.9]	120mm² STR[14.4]	GD1929	1.38 [35]	3/8" [10]	2.19 [56]	4.19 [106]	3.13 [80]	266	240 [27.0]
2 1/2"	2.875	[73]	2 1/2"	2.50	[64]	300 kcmil (.630 DIA)	500 Kcmil(.814 DIA)	185mm² STR[17.8]	240mm² STR[20.3]	GD1934	1.56 [40]	1/2" [13]	2.00 [51]	4.56 [116]	3.00 [74]	232	480 [54.1]
2 1/2"	2.875	[73]	2 1/2"	2.50	[64]	550 kcmil (.855 DIA)	750 Kcmil(.998 DIA)	300mm² STR[22.6]	400mm² STR[26.1]	GD1939	1.81 [46]	5/8" [16]	1.38 [35]	4.81 [122]	3.13 [80]	356	680 [74.4]
3"	3.500	[89]	3"	3.000	[76]	#8 SOL(.128 DIA)	#4 STR(.232 DIA)	10mm² SOL[2.6]	16mm² STR[5.1]	GD204C	1.38 [35]	3/8" [10]	3.25 [83]	4.81 [122]	3.38 [86]	258	240 [27.0]



NOTES:
1. MATERIAL : CAST COPPER ALLOY, DURIUM #6 (U-BOLT, HEX NUTS & S.P.L.W).
2. UL 467 LISTED, FILE NO. E9999. ACCEPTABLE FOR DIRECT BURIAL.
3. SUITABLE FOR BURIAL IN GROUND OR CONCRETE.
4. DIMENSIONS IN BRACKETS [ ] ARE IN MILLIMETERS, ROUNDED OFF TO THE NEAREST MILLIMETER, UNLESS OTHERWISE NOTED, AND ARE FOR REFERENCE ONLY.
5. FOR TIN PLATING ADD SUFFIX "TN".

TO ORDER BURNDY® PRODUCTS CALL

UNITED STATES
1-800-346-4175 (LONDONDERRY, NH)

CANADA:
1-800-361-6975 (QUEBEC)
1-800-387-6467 (ALL OTHER PROVINCES)

FOR PRODUCT INFO: http://www.burndy.com

GROUND CONNECTOR

ITEM NO:	SEE TABLE	
CAT. NO:	GD-(TABLE)	
DRAWN BY:	AHU	6/16/94
CHECKED:	DJ	6/16/94
QSA APPVL:	FJF	6/16/94
MFG APPVL:	FJF	6/16/94
QA APPVL:	A LLOYD	12/3/93
MAT APPVL:	R WOOD	11/11/93
PROD FAM:	---	
PROJECT #:	PCN 1558	
DOCUMENT TYPE:	Sales	
REL LEVEL:	In Work	

BURNDY

SCALE: 3:2

SIZE: D

DRAWING NO: SD013775

REV: C

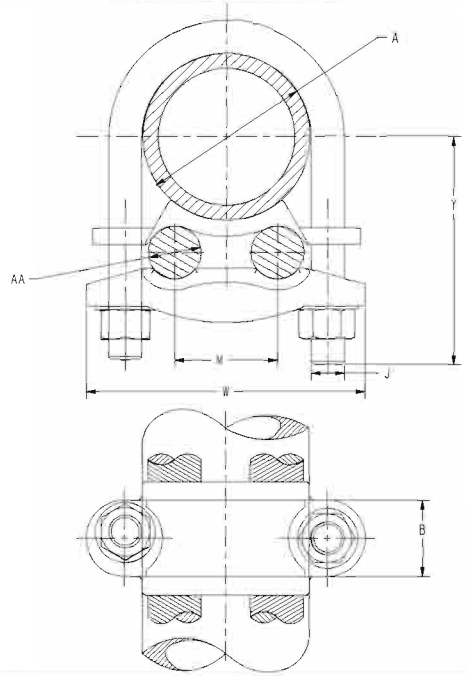
SHEET 1 OF 2

REV: PCN300

DRAWING NO. SD013775

REV	DATE	DESCRIPTION	ECO	BY	C'H'K
C	10/21/1998 08:37:10 AM	[illegible]	29180	MJ	NG

CONDUCTORS ACCOMMODATED										CATALOG NUMBER	B	J	M	W	Y	"U" BOLT	TORQUE Lb*in [N*m]
A					AA												
I.P.S. PIPE			ROD		AWG		METRIC WIRE SIZE										
NOMINAL DIAMETER (IN)	ACTUAL DIA. (IN)	(MM)	NOMINAL DIAMETER (in)	ACTUAL DIAMETER (in)	(mm)	MIN	MAX	MIN	MAX								
3"	3.500	[89]	3"	3.00	[76]	#4 SOL(.204 DIA)	2/0 STR(.416 DIA)	25mm² STR[6.5]	50mm² STR[9.3]	GD2026	1.50 [38]	3/8" [10]	2.75 [70]	4.81 [118]	3.38 [83]	258	240 [27.0]
3"	3.500	[89]	3"	3.00	[76]	2/0 SOL(.365 DIA)	250 Kcmil(.575 DIA)	70mm² STR[10.9]	120mm² STR[14.4]	GD2029	1.50 [38]	3/8" [10]	2.88 [73]	4.81 [118]	3.38 [83]	258	240 [27.0]
3"	3.500	[89]	3"	3.00	[76]	300 Kcmil(.630 DIA)	500 Kcmil(.814 DIA)	185mm² STR[17.8]	240mm² STR[20.3]	GD2034	1.56 [40]	1/2" [13]	2.31 [59]	5.31 [130]	4.00 [98]	282	480 [54.1]
3"	3.500	[89]	3"	3.00	[76]	550Kcmil(.855 DIA)	750 Kcmil(.996 DIA)	300mm² STR[22.6]	400mm² STR[26.1]	GD2039	1.88 [48]	5/8" [16]	2.31 [59]	5.31 [130]	4.13 [105]	---	660 [74.4]
3"	3.500	[89]	3"	3.00	[76]	800 Kcmil(1.031DIA)	1000 Kcmil(1.152 DIA)	400mm² STR[26.1]	500mm² STR[28.3]	GD2044	2.00 [51]	5/8" [16]	2.31 [59]	5.31 [130]	4.25 [108]	---	660 [74.4]
3 1/2"	4.000	[102]	3 1/2"	3.50	[89]	#8 SOL(.129 DIA)	#4 STR(.232 DIA)	10mm² SOL[2.6]	16mm² STR[5.1]	GD214C	1.44 [37]	3/8" [10]	2.31 [59]	5.31 [130]	3.75 [92]	264	240 [27.0]
3 1/2"	4.000	[102]	3 1/2"	3.50	[89]	#4 SOL(.204 DIA)	2/0 STR(.416 DIA)	25mm² STR[6.5]	50mm² STR[9.3]	GD2126	1.50 [38]	3/8" [10]	2.31 [59]	5.31 [130]	3.75 [92]	264	240 [27.0]
3 1/2"	4.000	[102]	3 1/2"	3.50	[89]	2/0 SOL(.365 DIA)	250 Kcmil(.575 DIA)	70mm² STR[10.9]	120mm² STR[14.4]	GD2129	1.50 [38]	3/8" [10]	2.31 [59]	5.31 [130]	3.75 [92]	264	240 [27.0]
3 1/2"	4.000	[102]	3 1/2"	3.50	[89]	300 Kcmil(.630 DIA)	500 Kcmil(.814 DIA)	185mm² STR[17.8]	240mm² STR[20.3]	GD2134	1.56 [40]	1/2" [13]	3.13 [80]	5.69 [139]	3.25 [80]	436	480 [54.1]
3 1/2"	4.000	[102]	3 1/2"	3.50	[89]	550Kcmil(.855 DIA)	750 Kcmil(.996 DIA)	300mm² STR[22.6]	400mm² STR[26.1]	GD2139	1.88 [48]	5/8" [16]	2.88 [73]	6.06 [146]	4.88 [120]	313	660 [74.4]
3 1/2"	4.000	[102]	3 1/2"	3.50	[89]	800 Kcmil(1.031DIA)	1000 Kcmil(1.152 DIA)	400mm² STR[26.1]	500mm² STR[28.3]	GD2144	2.00 [51]	5/8" [16]	2.75 [70]	6.06 [148]	4.88 [120]	313	660 [74.4]
4"	4.500	[114]	4"	4.00	[102]	#8 SOL(.129 DIA)	#4 STR(.232 DIA)	10mm² SOL[2.6]	16mm² STR[5.1]	GD224C	1.56 [40]	3/8" [10]	4.19 [106]	5.94 [146]	3.69 [90]	261	240 [27.0]
4"	4.500	[114]	4"	4.00	[102]	#4 SOL(.204 DIA)	2/0 STR(.416 DIA)	25mm² STR[6.5]	50mm² STR[9.3]	GD2226	1.63 [41]	3/8" [10]	3.75 [95]	5.81 [142]	3.69 [90]	261	240 [27.0]
4"	4.500	[114]	4"	4.00	[102]	2/0 SOL(.365 DIA)	10mm² SOL[2.6]	70mm² STR[10.9]	120mm² STR[14.4]	GD2229	1.63 [41]	3/8" [10]	3.68 [94]	5.81 [142]	3.69 [90]	261	240 [27.0]
4"	4.500	[114]	4"	4.00	[102]	300 Kcmil(.630 DIA)	500 Kcmil(.814 DIA)	150mm² STR[16.0]	240mm² STR[20.3]	GD2234	1.38 [35]	1/2" [13]	3.31 [84]	6.19 [152]	4.00 [98]	262	480 [54.1]
4"	4.500	[114]	4"	4.00	[102]	550Kcmil(.855 DIA)	750 Kcmil(.996 DIA)	300mm² STR[22.6]	400mm² STR[26.1]	GD2239	1.88 [48]	5/8" [16]	3.63 [92]	6.56 [167]	4.13 [105]	377	660 [74.4]
4"	4.500	[114]	4"	4.00	[102]	800 Kcmil(1.031DIA)	1000 Kcmil(1.152 DIA)	400mm² STR[26.1]	500mm² STR[28.3]	GD2244	2.00 [51]	5/8" [16]	3.25 [83]	6.56 [167]	4.13 [105]	377	660 [74.4]
1 1/2" OR 3/4"	1.66 OR 1.05 [42.1] OR [27]		7/8" OR 1"	.875 OR .25	[22] OR [25]	#8 SOL(.129 DIA)	#4 STR(.232 DIA)	10mm² SOL[2.6]	16mm² STR[5.1]	GD114C	1.13 [29]	5/8" [16]	3.25 [83]	2.38 [58]	1.75 [43]	222	660 [74.4]
6"	6.625	[168]	--	--	--	#4 SOL(.204 DIA)	2/0 STR(.416 DIA)	25mm² STR[6.5]	50mm² STR[9.3]	GD6626	1.63 [41]	1/2" [13]	6.03 [153]	8.19 [208]	4.31 [106]	275	480 [54.1]
-			3/4"	.75	[19]	300 Kcmil(.630 DIA)	500 Kcmil(.814 DIA)	150mm² STR[16.0]	240mm² STR[20.3]	GD6434	1.56 [40]	1/2" [13]	1.00 [25]	3.59 [88]	3.69 [90]	302	480 [54.1]
6"	6.625	[168]	--	--	--	2/0 SOL(.365 DIA)	250 Kcmil(.575 DIA)	70mm² STR[10.9]	120mm² STR[14.4]	GD6629	1.63 [41]	1/2" [13]	5.81 [148]	8.31 [211]	4.31 [106]	275	480 [54.1]



NOTES:
1. MATERIAL : CAST COPPER ALLOY, DURIUM #6 (U-BOLT, HEX NUTS & S.P.L.W).
2. UL 467 LISTED, FILE NO. E9999. ACCEPTABLE FOR DIRECT BURIAL.
3. SUITABLE FOR BURIAL IN GROUND OR CONCRETE.
4. DIMENSIONS IN BRACKETS [ ] ARE IN MILLIMETERS, ROUNDED OFF TO THE NEAREST MILLIMETER; UNLESS OTHERWISE NOTED, AND ARE FOR REFERENCE ONLY.
5. FOR TIN PLATING ADD SUFFIX "TN".

TO ORDER BURNDY® PRODUCTS CALL

UNITED STATES
1-800-346-4175 (LONDONDERRY, NH)

CANADA:
1-800-361-6975 (QUEBEC)
1-800-387-6467 (ALL OTHER PROVINCES)

FOR PRODUCT INFO: http://www.burndy.com

GROUND CONNECTOR

ITEM NO:	SEE TABLE
CAT. NO:	GD-(TABLE)
DRAWN BY:	H PERREAULT 3/22/94
CHECKED:	
QSA APPVL:	S UTRERA 11/11/93
MFG APPVL:	--
QA APPVL:	A LLOYD 12/3/93
MKT APPVL:	R WOOD 11/11/93
PROD FAM:	--
PROJECT #:	PCN 1558
DOCUMENT TYPE:	Sales
REL LEVEL:	In Work

BURNDY

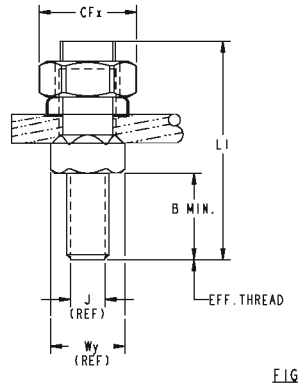
SCALE: 3:2

SIZE	DRAWING NO.	REV
D	SD013775	C
	SHEET 2 OF 2	

RTU: PC0300

DRAWING NO. SD055917

REV	DATE	DESCRIPTION	ECO	BY	C'H'K.
F	7/21/2009 11:22:04 AM	UPDATE BASE MODELS PER ECN.	18354	RLB	JP



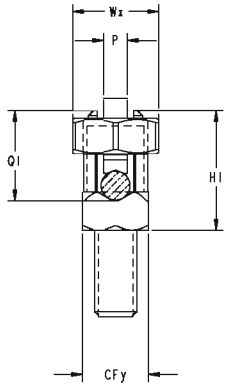
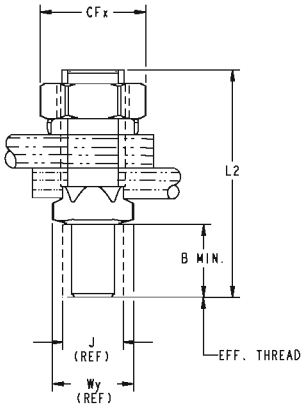


FIG. 1



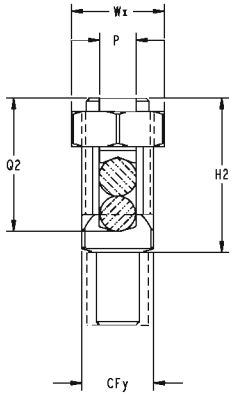
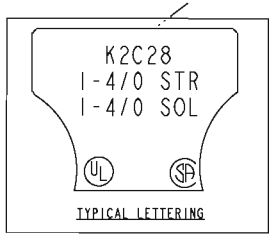
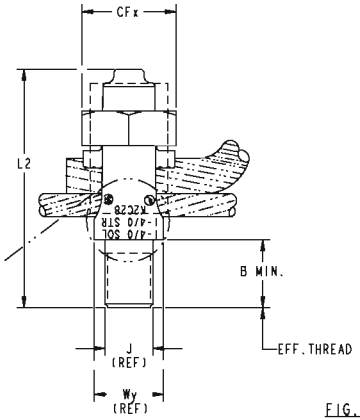


FIG. 2



TYPICAL LETTERING



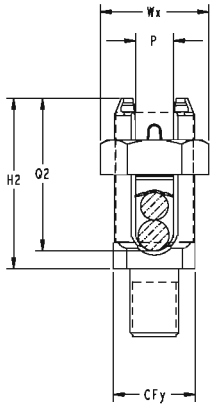
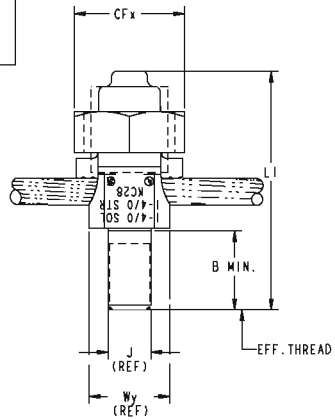


FIG. 4



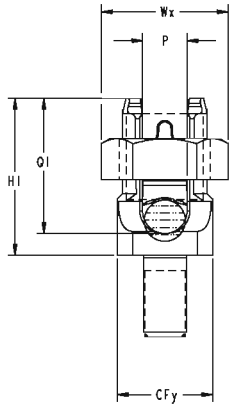


FIG. 3

NOTES:

1. MATERIAL: LEADED COMMERCIAL BRONZE (KC15-KC26).
   CAST COPPER ALLOY (KC28-KC44).
2. FINISH: NONE.
3. ALL ITEMS ARE LISTED TO UL 467,FILE E9999 AND CSA C22.2 NO. 65, FILE 42861, UNLESS OTHERWISE NOTED.
4. DIMENSIONS IN [ ] BRACKETS ARE IN MILLIMETERS ROUNDED OFF TO THE NEAREST TENTH OF A MILLIMETER, UNLESS OTHERWISE NOTED AND ARE FOR REFERENCE ONLY.

5. THESE ITEMS ARE NOT UL467 LISTED. KC34 & K2C34 SERIES UL467 LISTED FOR CONDUCTOR SIZES UP TO 300.

6. CATALOG NUMBER KC34J12T13 IS THE SAME AS THE KC34, EXCEPT THE KC34J12T13 HAS A 1/2-13 UNC-2A (J REF.) THREAD.

TO ORDER BURNDY® PRODUCTS CALL

UNITED STATES
1-800-346-4175 (LONDONDERRY, NH)

CANADA:
1-800-361-5975 (QUEBEC)
1-800-387-6487 (ALL OTHER PROVINCES)

FOR PRODUCT INFO: http://www.burndy.com

SERVIT POST™ (MALE)

ITEM NO:	N/A	
CAT. NO:	KC--, K2C-- (TABLE)	
DRAWN BY:	A.J.M.	4/16/94
CHECKED:	L.S.T.	4/25/94
DSN APPVL:	C.PALAGI	4/94
MFG APPVL:	--	--
QA APPVL:	A.LLOYD	4/94
MKT APPVL:	P.WERTHMAN	4/94
PROD FAM:	--	
PROJECT #:	--	
DOCUMENT TYPE:	Sales	
REL LEVEL:	Released	

FCI BURNDY PRODUCTS

SCALE: 1.000

SIZE	DRAWING NO	REV
D	SD055917	F
	SHEET 2 OF 2	

REV: PE0200

DRAWING NO. SD055917

REV	DATE	DESCRIPTION	ECO	BY	K'H'K.
F	7/21/2009 11:22:00 AM	UPDATE SALE DRAWING PER W/B. ..	18354	RLB	JP

CATALOG NUMBER FIG. 1	CATALOG NUMBER FIG. 2	CONDUCTORS ACCOMMODATED AWG. STRANDED	AWG. SOLID	METRIC WIRE SIZE STRANDED	METRIC WIRE SIZE SOLID	J REF.	P ±.02	B MIN EFF THD.	CFy ±.02	Wy REF.	H1 ±.03	L1 ±.03	Q1 ±.03	CFx ±.02	Wx REF.	H2 ±.03	L2 ±.03	Q2 ±.03	NUT TORQUE LBS•IN [N•M]	STUD TORQUE LBS•IN [N•M]
KC15 [5]	K2C15 [5]	12 (.092 DIA) 9 (.130 DIA)	12 (.081 DIA) 8 (.128 DIA)	[4mm²(2.6 DIA)] [6mm²(3.2 DIA)]	[4mm²(2.3 DIA)] [6mm²(2.8 DIA)]	1/4-20 UNC-2A	.14 [3.6]	.37 [9.4]	.38 [9.7]	.44 [11.2]	.69 [17.5]	1.19 [30.2]	.53 [13.5]	.50 [12.7]	.56 [14.2]	.81 [20.6]	1.31 [33.3]	.66 [16.8]	80 [9.0]	.80 [9.0]
KC15BI [5]	K2C15BI [5]							.87 [22.1]				1.69 [42.9]					1.81 [46.0]			
KC17 [5]	K2C17 [5]	10 (.116 DIA) 7 (.164 DIA)	10 (.102 DIA) 6 (.162 DIA)	[6mm²(3.2 DIA)] [10mm²(4.1 DIA)]	[6mm²(2.8 DIA)] [10mm²(3.6 DIA)]	1/4-20 UNC-2A	.17 [4.2]	.37 [9.4]	.44 [11.2]	.50 [12.7]	.84 [21.3]	1.34 [34.0]	.66 [16.8]	.62 [15.7]	.69 [17.5]	1.00 [25.4]	1.50 [38.1]	.81 [20.6]	80 [9.0]	80 [9.0]
KC17BI [5]	K2C17BI [5]							.87 [22.1]				1.84 [46.7]					2.00 [50.8]			
KC20	K2C20	10 (.116 DIA) 5 (.206 DIA)	10 (.102 DIA) 4 (.204 DIA)	[6mm²(3.2 DIA)] [16mm²(5.1 DIA)]	----- -----	5/16-18 UNC-2A	.22 [5.5]	.41 [10.4]	.50 [12.7]	.58 [14.7]	.86 [21.8]	1.42 [36.1]	.70 [17.8]	.69 [17.5]	.78 [19.8]	1.06 [26.9]	1.62 [41.1]	.91 [23.1]	165 [18.6]	180 [20.3]
KC20BI	K2C20BI							.85 [21.6]				1.92 [48.8]					2.06 [52.3]			
KC22	K2C22	10 (.116 DIA) 3 (.260 DIA)	10 (.102 DIA) 2 (.258 DIA)	[6mm²(3.2 DIA)] [25mm²(6.5 DIA)]	----- -----	3/8-16 UNC-2A	.26 [6.7]	.46 [11.7]	.62 [15.7]	.72 [18.3]	1.00 [25.4]	1.62 [41.1]	.81 [20.6]	.75 [19.1]	.84 [21.3]	1.25 [31.8]	1.88 [47.8]	1.06 [26.9]	275 [31.1]	280 [31.6]
KC22BI	K2C22BI							.96 [24.4]				2.12 [53.8]					2.38 [60.5]			
KC23	K2C23	8 (.146 DIA) 2 (.292 DIA)	10 (.102 DIA) 1 (.289 DIA)	[10mm²(4.1 DIA)] [35mm²(6.5 DIA)]	----- -----	3/8-16 UNC-2A	.32 [8.2]	.46 [11.7]	.62 [15.7]	.72 [18.3]	1.05 [26.7]	1.67 [42.4]	.86 [21.8]	.81 [20.6]	.94 [23.9]	1.34 [34.0]	1.97 [50.0]	1.16 [29.5]	275 [31.1]	280 [31.6]
KC23BI	K2C23BI							.97 [24.6]				2.19 [55.6]					2.47 [62.7]			
KC23-BDT [5]	-	8 (.146 DIA) 2 (.292 DIA)	10 (.102 DIA) 1 (.289 DIA)	[10mm²(4.1 DIA)] [35mm²(6.5 DIA)]	----- -----	5/16-18 UNC-2A	.32 [8.2]	.44 [11.2]	.62 [15.7]	.72 [18.3]	1.05 [26.7]	1.49 [37.8]	.86 [21.8]	.81 [20.6]	.94 [23.9]	---	---	---	275 [31.1]	180 [20.3]
KC25	K2C25	2 (.292 DIA) 1/0 (.373 DIA)	2 (.258 DIA) 2/0 (.365 DIA)	[35mm²(6.5 DIA)] [50mm²(9.3 DIA)]	----- -----	1/2-13 UNC-2A	.39 [9.8]	.53 [13.5]	.75 [19.1]	.88 [22.4]	1.19 [30.2]	1.94 [49.3]	1.00 [25.4]	.93 [23.6]	1.15 [29.2]	1.56 [39.6]	2.31 [58.7]	1.38 [35.1]	385 [43.5]	480 [54.2]
KC25BI	K2C25BI							1.04 [26.4]				2.44 [62.0]					2.81 [71.4]			
FIG. 3	FIG. 4					REF	±.05		±.03	REF	±.05	±.05	±.05	±.03	REF	±.05	±.05	±.05		
KC26	K2C26	2 (.292 DIA) 2/0 (.419 DIA)	2 (.258 DIA) 3/0 (.410 DIA)	[35mm²(6.5 DIA)] [70mm²(9.3 DIA)]	----- -----	1/2-13 UNC-2A	.44 [11.0]	.52 [13.2]	.88 [22.4]	1.01 [25.7]	1.38 [35.1]	2.12 [53.8]	1.16 [29.5]	1.04 [26.4]	1.28 [32.5]	1.81 [46.0]	2.53 [64.3]	1.56 [39.6]	385 [43.5]	480 [54.2]
KC26BI	K2C26BI							1.04 [26.4]				2.62 [66.5]					3.09 [78.5]			
KC28	K2C28	1 (.332 DIA) 4/0 (.528 DIA)	1 (.289 DIA) 4/0 (.460 DIA)	[50mm²(9.3 DIA)] [95mm²(12.8 DIA)]	----- -----	5/8-11 UNC-2A	.55 [14.0]	.75 [19.1]	1.18 [30.0]	1.00 [25.4]	1.94 [49.3]	2.95 [74.9]	1.67 [42.4]	1.35 [34.3]	1.56 [39.6]	2.46 [62.5]	3.44 [87.4]	2.20 [55.9]	500 [56.5]	660 [74.6]
KC28BI	K2C28BI							1.25 [31.8]				3.45 [87.6]					3.94 [100.1]			
KC31	K2C31	1 (.332 DIA) 350 Kcmil(.681 DIA)	----- -----	[50mm²(9.3 DIA)] [150mm²(16.0 DIA)]	----- -----	5/8-11 UNC-2A	.70 [17.8]	.75 [19.1]	1.43 [36.3]	1.29 [32.8]	2.19 [55.6]	3.19 [81.0]	1.84 [46.7]	1.69 [42.9]	1.91 [48.5]	2.88 [73.2]	3.88 [98.6]	2.53 [64.3]	650 [73.4]	660 [74.6]
KC31BI	K2C31BI							1.23 [31.2]				3.69 [93.7]					4.38 [111.3]			
KC34 [5] [6]	K2C34 [5]	3/0 (.470 DIA) 500 Kcmil(.813 DIA)	----- -----	[95mm²(12.8 DIA)] [240mm²(20.3 DIA)]	----- -----	3/4-10 UNC-2A [4]	.85 [21.5]	.99 [25.1]	1.62 [41.1]	1.45 [36.8]	2.38 [60.5]	3.62 [91.9]	1.97 [50.0]	2.00 [50.8]	2.28 [57.9]	31.9 [81.0]	4.44 [112.8]	2.78 [70.6]	825 [93.2]	1050 [118.7]
KC34BI [5]	K2C34BI [5]							1.49 [37.8]				4.12 [104.6]					4.94 [125.5]			
KC39 [5]	K2C39 [5]	350 Kcmil(.681 DIA) 750 Kcmil(.998 DIA)	----- -----	[185mm²(17.8 DIA)] [300mm²(22.6 DIA)]	----- -----	7/8-9 UNC-2A	1.01 [25.7]	1.13 [25.4]	1.88 [47.8]	1.92 [48.8]	2.94 [74.7]	4.32 [109.7]	2.53 [64.3]	2.31 [58.7]	2.62 [66.5]	3.94 [100.1]	5.32 [135.1]	3.53 [89.7]	1000 [113.0]	1700 [192.1]
KC39BI [5]	K2C39BI [5]							1.63 [41.4]				4.82 [122.4]					5.82 [147.8]			
KC44 [5]	K2C44 [5]	500 Kcmil(.813 DIA) 1000 Kcmil(1.152 DIA)	----- -----	[300mm²(22.6 DIA)] [500mm²(28.3 DIA)]	----- -----	1-8 UNC-2A	1.17 [29.6]	1.19 [30.2]	2.12 [53.8]	2.12 [53.8]	3.23 [82.0]	4.73 [120.1]	2.83 [71.9]	2.56 [65.0]	2.91 [73.9]	4.39 [111.5]	5.89 [149.6]	3.99 [101.3]	1100 [124.3]	2550 [288.2]
KC44BI [5]	K2C44BI [5]							1.69 [42.9]				5.23 [132.8]					6.42 [163.1]			

TO ORDER BURNDY® PRODUCTS CALL

UNITED STATES
1-800-346-4175 (LONDONDERRY, NH)

CANADA:
1-800-361-6975 (QUEBEC)
1-800-387-6487 (ALL OTHER PROVINCES)

FOR PRODUCT INFO: http://www.burndy.com

SERVIT POST™ (MALE)

ITEM NO: N/A
CAT. NO: KC--, K2C-- (TABLE)
DRAWN BY: A.J.W. 4/16/94
CHECKED: L.S.T. 4/25/94
DSN APPVL: C.PALAGI 4/94
MFG APPVL: -- --
QA APPVL: A.LLOYD 4/94
MKT APPVL: P.WERTHMAN 4/94
PROD FAM: --
PROJECT #: --
DOCUMENT TYPE: Sales
REL LEVEL: Released
SIZE D
SCALE: 1.000
DRAWING NO SD055917
REV F
SHEET 1 OF 2

BURNDY PRODUCTS

REV: PE0200

Picture 1: Metal trough between SP51 and SP-52

Picture 2: Electrical Panels

Picture 3: Capped well pipe

Picture 4: Clothes line between SP51 and SP52

Picture 5: Gas cylinders between SP-51 and SP-52

Picture 6: Picnic table between SP-51 and SP-52

Picture 7: Metal pole between SP-51 and SP-52

Picture 8: Metal tower between SP51 and SP52

ATTACHMENT F: TRA-3 MEMO

Mitigation Measure TRA-3 for the East County Substation Project

MEMORANDUM

To: Amy Baker, California Public Utilities Commission (CPUC), and Dave Hochart, Dudek

From: Don Houston, San Diego Gas & Electric Company (SDG&E)

Date: October 2, 2013

Re: Mitigation Measure (MM) TRA-3 for the East County Substation Project (Project)

This memorandum was prepared to demonstrate that SDG&E has satisfied the pre-construction requirements for MM TRA-3 of the Mitigation Monitoring, Compliance, and Reporting Program of the Final Environmental Impact Report/Environmental Impact Statement (EIR/EIS). The full text of the measure follows.

> **MM TRA-3. Consult with and inform the FAA, DOD, and U.S. Customs and Border Protection.**
>
> SDG&E shall consult with the FAA, DOD, and U.S. Customs and Border Protection (San Diego Sector) to avoid potential safety issues associated with proximity to airports, military bases or training areas, and land strips and to determine where Border Protection aircraft operate in the County. Prior to construction, SDG&E shall provide written notification to the FAA, the U.S. Air Force Regional Environmental Coordinator (or appropriate DOD representative), U.S. Customs and Border Protection (San Diego Sector), and to the CPUC and BLM, stating when and where the new transmission lines and towers will be erected, and shall install markers as requested by the U.S. Customs and Border Protection or FAA. SDG&E shall also provide all agencies listed above with aerial photos or topographic maps clearly showing the new lines and towers.

In accordance with the above measure, SDG&E has consulted with the Federal Aviation Administration (FAA), Department of Defense (DOD), and United States Customs and Border Protection (CBP) to avoid potential safety issues, provide notification of the Project alignment, and discuss marker locations and lighting associated with sections of the alignment in their jurisdiction. Consultation with the CPUC and Bureau of Land Management (BLM) was satisfied through certification of the Final EIS/EIS by the CPUC and issuance of the Record of Decision by the BLM.

Evidence of coordination with the FAA, DOD, and CBP is included as Attachment F-1: FAA Consultation, Attachment F-2: DOD Consultation, and Attachment F-3: CBP Consultation. SDG&E has submitted the 7460-1 forms to the FAA, which were assigned Aeronautical Study Numbers 2013-AWP-5437 through 5448-OE. Evidence of this submittal is included as Attachment F-1: FAA Consultation. Email correspondence

between SDG&E and DOD personnel included as Attachment F-2: DOD Consultation demonstrates that notification of the Project alignment has been forwarded to the DOD. No issues regarding safety or the need for additional marker locations and lighting have been received from the DOD to date. SDG&E initiated consultation with CBP personnel through an in-person meeting on October 19, 2012, which was followed by email correspondence in July 2013 that included aerial maps sent to the CBP Supervisory Air Interdiction Agent. Documentation evidencing these communications and coordination efforts are included as Attachment F-3: CBP Consultation. No potential safety issues or requests for additional lighting or markers have been received from the CBP to date.

As demonstrated by the documentation attached, SDG&E has fulfilled the pre-construction requirements of MM TRA-3. Coordination will continue as necessary to address any potential safety concerns raised by these agencies as construction progresses.

ATTACHMENT F-1: FAA CONSULTATION

Federal Aviation Administration

« OE/AAA

Notice of Proposed Construction or Alteration - Off Airport

Project Name: SAN D-000248792-13

Project Summary : SAN D-000248792-13

Structure	City, State	Lat/Long	Map	Actions	7460-2 Received	Latest Letter
TL13844 - Tower Z100103 Accepted 2013-AWP-5437-OE	Jacumba, CA	32° 37' 36.48" 116° 11' 53.72"	Show Map	Upload a PDF Add 7460-2		None
TL13844 - Tower Z100104 Accepted 2013-AWP-5438-OE	Jacumba, CA	32° 37' 37.20" 116° 11' 45.62"	Show Map	Upload a PDF Add 7460-2		None
TL13844 - Tower Z100105 Accepted 2013-AWP-5439-OE	Jacumba, CA	32° 37' 38.15" 116° 11' 34.86"	Show Map	Upload a PDF Add 7460-2		None
TL13844 - Tower Z100106 Accepted 2013-AWP-5440-OE	Jacumba, CA	32° 37' 39.06" 116° 11' 24.53"	Show Map	Upload a PDF Add 7460-2		None
TL13844 - Tower Z100107 Accepted 2013-AWP-5441-OE	Jacumba, CA	32° 37' 39.86" 116° 11' 15.43"	Show Map	Upload a PDF Add 7460-2		None
TL13844 - Tower Z100108 Accepted 2013-AWP-5442-OE	Jacumba, CA	32° 37' 40.77" 116° 11' 5.14"	Show Map	Upload a PDF Add 7460-2		None
TL13844 - Tower Z100109 Accepted 2013-AWP-5443-OE	Jacumba, CA	32° 37' 41.30" 116° 10' 59.07"	Show Map	Upload a PDF Add 7460-2		None
TL13844 - Tower Z100114 Accepted 2013-AWP-5444-OE	Jacumba, CA	32° 37' 45.44" 116° 10' 12.02"	Show Map	Upload a PDF Add 7460-2		None
TL13844 - Tower Z100115 Accepted 2013-AWP-5445-OE	Jacumba, CA	32° 37' 46.11" 116° 10' 4.44"	Show Map	Upload a PDF Add 7460-2		None
TL13844 - Tower Z100116 Accepted 2013-AWP-5446-OE	Jacumba, CA	32° 37' 46.04" 116° 9' 53.26"	Show Map	Upload a PDF Add 7460-2		None
TL13844 - Tower Z100117 Accepted 2013-AWP-5447-OE	Jacumba, CA	32° 37' 44.19" 116° 9' 52.21"	Show Map	Upload a PDF Add 7460-2		None
TL13844 - Catenary Z100071 to ... Accepted 2013-AWP-5448-OE	Jacumba, CA	32° 36' 49.37" 116° 15' 58.72"	Show Map	Upload a PDF Add 7460-2		None

Upload a PDF to the Project

ATTACHMENT F-2: DOD CONSULTATION

Due to its confidential nature, Attachment F-2: DOD Consultation has been removed.

ATTACHMENT F-3: CBP CONSULTATION

Due to its confidential nature, Attachment F-3: CBP Consultation has been removed.