HISTORICAL RESOURCE INVENTORY AND EVALUATION REPORT FOR TL 6975: SAN MARCOS TO ESCONDIDO PROJECT, SAN DIEGO COUNTY, CALIFORNIA

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NATIONAL ARCHAEOLOGICAL DATABASE INFORMATION

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Type of Study:	Historical Resources Inventory and Evaluation
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Keywords:	SDG&E; Escondido Substation; San Marcos Substation; TL 680C; TL 113811A; California Register of Historical Resources; San Diego County Electrical Infrastructure

Contents

Tables and Figures

Acronyms and Abbreviations

C	circuit
CPUC	California Public Utilities Commission
AC	alternating current
ACSR/AW	aluminum conductor steel reinforced/aluminum wire
CCR]	California Code of Regulations
CEQA	California Environmental Quality Act
CNF	Cleveland National Forest
CRHR	California Register of Historical Resources
GIS	geographic information system
kV	kilovolt
Local Register	County of San Diego Register of Historical Resources
MCM	thousand circular mils
MSUP	Master Special Use Permit
MWD	Metropolitan Water District
NERC	North American Electric Reliability Corporation
NRHP	National Register of Historic Places
PG&E	Pacific Gas and Electric Company
PRC	Public Resources Code
ROWs	rights-of-way
RPO	Resource Protection Ordinance
SCE	Southern California Edison
SDCG&E	San Diego Consolidated Gas and Electric Company
SDG&E	San Diego Gas and Electric Company
SF_6	sulfur hexafluoride
TL	Tie-Line
USGS	United States Geological Survey

Executive Summary

This report, prepared by ICF under contract to kp Environmental, documents the results of historical resource investigations conducted for TL 6975: Escondido to San Marcos Project (Proposed Project). This study identifies and evaluates historic-era electrical infrastructure within the corridor of the Proposed Project. This study's conclusions are based on historic research, the results of a field survey to record historic-era electrical infrastructure components within the Project Corridor, and formal significance evaluation of those components in accordance with the California Environmental Quality Act (CEQA). This study has been prepared to determine if historic-era substations and power line poles and towers that stand to be replaced or altered by the Proposed Project qualify as historical resources under CEQA.

The significance evaluations in this study entailed research on the history of electrical infrastructure development in San Diego County. The historic context framing the significance evaluations draws from historic contexts developed for other San Diego Gas and Electric Company (SDG&E) projects and research conducted at the San Diego History Center, the San Diego State University Library Special Collections, the San Diego Public Library, and a variety of online resources. Research materials included historic maps, newspaper articles, aerial photos, a published history of SDG&E, local histories, SDG&E publications and annual reports, and available SDG&E pole cards for poles and towers within the Project Corridor.

During the field survey for this study, ICF staff identified sub sets of each power-line pole and tower type within the Project Corridor based on date of installation, design, and materials. Along with two substations within the Project Corridor—Escondido Substation and San Marcos Substation—each pole and tower type within the corridor was recorded with digital photographs and inspected to the extent feasible under varying access conditions. All poles and towers within the Project Corridor were observed visually.

ICF identified two power lines in the Project Corridor with poles or towers 50 years or older: TL 680C and TL 13811A. Research revealed that Escondido Substation is over 50 years old and that SDG&E likely established San Marcos Substation in 1969 (aerial photographs confirm its presence by 1970). ICF evaluated TL 680C, TL 13811A, San Marcos Substation, and Escondido Substation for historic register eligibility. ICF found these four historic-era electrical infrastructure resources not eligible for the National Register of Historic Places, the California Register of Historical Resources, or the County of San Diego's Local Register or Resource Protection Ordinance. ICF has concluded that none of the four evaluated resources qualify as historical resources under CEQA.

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Chapter 1
Introduction

1.1 Project Description

San Diego Gas and Electric Company (SDG&E) proposes to rebuild, new build, and reconductor approximately 12 miles of 69 kilovolt (kV) overhead electric power line from the existing San Marcos Substation to the existing Escondido Substation. The rebuilt and reconductored portions of the power line would be within existing rights-of-way (ROWs), with a small portion of the Segment 1 rebuild requiring approximately 1.2 acres of new ROW where the existing ROW would be widened. Though no new substations are proposed, the Proposed Project would create a third power line at the San Marcos Substation, and a twelfth power line at the Escondido Substation. In addition to improving the reliability to the area, the Proposed Project would also mitigate identified North American Electric Reliability Corporation (NERC) thermal/voltage violations and the ongoing 69 kV congestion on the corridor between Escondido to San Marcos Substations.

The Proposed Project is intended to meet the following objectives: (1) eliminate existing congestion in the Escondido/San Marcos area, 2) eliminate the NERC Category P0 (Cat A) and Category P1 (Cat B) violation on Tie-Line (TL) 680C (San Marcos–Melrose Tap), and (3) improve reliability by providing an additional feed to San Marcos Substation.

1.1.1 Segment 1 Rebuild

Segment 1 of the Proposed Project would rebuild approximately 1.8 miles of an existing 69 kV power line (TL 680C) from a single-circuit structure line to a double-circuit structure line, supporting both the existing TL 680C and proposed TL 6975. All wood structures would be replaced with steel poles, all porcelain insulators would be replaced with polymer insulators, and TL 680C would be reconductored with 636 aluminum conductor steel reinforced/aluminum wire (ACSR/AW) core. For the proposed TL 6975, 636 ACSS/AW would be strung. The line would be rebuilt from San Marcos Substation, along San Marcos Boulevard and Palomar Airport Road, until it reaches the existing 150-foot-wide SDG&E corridor, approximately 800 feet west of White Sands Drive. At that location, TL 680C would continue on its existing alignment north within the SDG&E corridor, and TL 6975 would split off to the south (Segment 2). The existing ROW would be widened to accommodate the new structures, for a total of 1.2 acres of new ROW. The existing distribution underbuilt would be reconductored. A portion of the existing line that has two 12 kV circuits on one level would be changed to two levels. The existing SDG&E and third-party communication lines underbuilt in Segment 1 would be transferred to the new structures. There are existing cable poles along this line. Based on new pole positions, some trenching would be involved to intercept existing underground conduit and reroute the conduit to the new pole.

1.1.2 Segment 2 New Build

A new segment of single-circuit 69 kV overhead power line would be constructed on new steel poles in the existing SDG&E corridor. The new power line segment would be approximately 2.8 miles long, starting at Melrose Tap at the end of Segment 1, and traveling south to the existing Meadowlark

Junction (north of San Elijo Road and Hidden Canyon Road), and be located adjacent to the existing TL 13811/13825 power line. The new single-circuit 69 kV steel poles would be constructed within the SDG&E corridor, approximately 50 feet east of centerline of the existing structures. All of the new steel poles would have graded access roads and access/maintenance pads built to them in order to facilitate construction and provide long-term maintenance access. The existing access road would be extended and widened to provide access to the new steel poles. At Meadowlark Junction, the existing 12 kV distribution line would be reconfigured. Segment 2 can accommodate additional communication lines, but they will not be installed as part of the Proposed Project. Segment 3 Reconductoring/Re-Energizing.

From Meadowlark Junction to Escondido Substation, the new power line would transition to existing steel lattice towers that contain a segment of overhead conductor, TL13811A, which is currently de-energized. Approximately 7.4 miles of reconductoring would be required for the de-energized segment that is on the existing lattice towers. The existing lattice tower and steel pole line contains conductor, hardware, and insulators on both sides of the double-circuit structures. For the Proposed Project, the 250 thousand circular mils (MCM) copper conductor and porcelain insulators on the north side of the towers would be removed and replaced with polymer insulators and new 636 ACSS/AW conductor. The reconductoring would be between Meadowlark Junction and a structure on Harmony Grove Road, approximately 500 feet east of Kauana Loa Drive. From this point to Escondido Substation, the existing 900 ACSS/AW conductor would remain in place.

1.1.3 Segment 3 Reconductoring/Re-Engineering

From Meadowlark Junction to Escondido Substation, the new power line would transition to existing steel lattice towers that contain a segment of overhead conductor, TL13811A, which is currently de-energized. Approximately 7.4 miles of reconductoring would be required for the de-energized segment that is on the existing lattice towers. The existing lattice tower and steel pole line contains conductor, hardware, and insulators on both sides of the double-circuit structures. For the Proposed Project, the 250 thousand circular mils (MCM) copper conductor and porcelain insulators on the north side of the towers would be removed and replaced with polymer insulators and new 636 ACSS/AW conductor. The reconductoring would be between Meadowlark Junction and a structure on Harmony Grove Road, approximately 500 feet east of Kauana Loa Drive. From this point to Escondido Substation, the existing 900 ACSS/AW conductor would remain in place.

At Escondido Substation, existing overhead conductor would be transferred from the 138 kV rack to an existing 69 kV bay position within the substation for the new TL 6975. Three existing 69 kV circuits would be transferred to different bay positions to accommodate this new circuit and avoid power line crossings. The last overhead spans (drop spans) of existing power lines TL 6908, TL 6934, and TL 689 would be relocated to available bay positions. New steel poles and replacement guys and anchors would be required to accomplish these relocations.

1.1.4 Substation Work

At San Marcos Substation, a new Circuit Breaker Pad, approximately 7 by 7 feet, would be installed. Seven piers, approximately 2 feet in diameter and 6 feet long, would be installed as well as an approximately 30-foot A-frame with two approximately 9- by 13-foot footings. A 69 kV sulfur hexafluoride (SF_6) circuit breaker, as well as two 69 kV 2,000-amp disconnects, would be installed for the new line. The new power line would connect from the A-frame to the TL 6975 power pole via

a single conductor/phase. Required control and protection relays would be installed in the existing control shelter.

At Escondido Substation, the existing overhead conductor would be transferred from the 138 kV rack to an existing 69 kV bay position for the new TL 6975. Three existing 69 kV circuits would be transferred to different bay positions to accommodate this new circuit and avoid power line crossings. The last overhead spans (drop spans) of existing power lines TL 6908, TL 6934, and TL 689 would be relocated to available bay positions. TL 6975 would take the existing bay location of TL 689, TL689 would take the bay location of TL6934, TL 6934 would take the bay position of TL6908, and TL6908 would relocate to Bay 16. At Bay 16, an oil containment wall that is approximately 14 by 12 feet and a Circuit Breaker Pad that is approximately 8 by 8 feet would be removed because the oil circuit breaker would be replaced with a gas circuit breaker. A new, larger Circuit Breaker Pad of approximately 10 by 10 feet would be installed. To connect TL 6908, two 69 kV 2,000-amp disconnects and one 69 kV SF6 circuit breaker would be installed. Relay settings would be modified as required in the existing control shelter. New steel poles and replacement guys and anchors would be required at the bay locations.

1.2 Project Area

The Project Area for the Proposed Project contains two substations (San Marcos and Escondido Substations) and four power line alignments, which are hereafter referred to together as the Project Corridor. Components of the Project Corridor are in the northern portion of San Diego County, in the cities of Carlsbad, San Marcos, Vista, and Escondido, as well as unincorporated San Diego County, California (Figure 1: Regional Location). The eastern boundary of Carlsbad is located 1.85 miles west of San Marcos Substation. An approximately 900-foot segment of the Project Corridor is within Carlsbad, and an approximately 1,500-foot segment contains Project Corridor elements on both sides of a portion of W. San Marcos Boulevard that marks the boundary between San Marcos and Vista. Most of the western Project Corridor is within San Marcos. Most of the eastern Project Corridor crosses unincorporated San Diego County. A 1.10-mile segment of the far eastern Project Corridor is within Escondido, including Escondido Substation. The Proposed Project is approximately 25 miles north of downtown San Diego and west of Interstate 15, south of State Route 78, and north of Elfin Forest Recreational Area. It can be found on the U.S. Geological Survey (USGS) San Marcos, Rancho Santa Fe, and Escondido 7.5-minute quadrangle maps (Figure 2: Project Location). California State University, San Marcos is situated between the existing substations. A portion of the Proposed Project traverses San Marcos Boulevard/County Highway S12 and crosses Rancho Santa Fe Road/County Highway S10 as well as other local roadways. Land uses in and around the Proposed Project include residential neighborhoods, industrial facilities, open space and preserves, and commercial and vacant lands. The existing San Marcos Substation is on the south side of State Route 78, just south of County Highway S12/San Marcos Boulevard, within the city of San Marcos. The existing Escondido Substation is also on the south side of State Route 78, north of Auto Park Way. The two substations and the locations of the power line poles and towers that would be subject to replacement, modification or reconductoring as part of the Proposed Project are shown in Figure 3, Sheets 1 through 15: Corridor Poles to be Affected by Proposed Project.

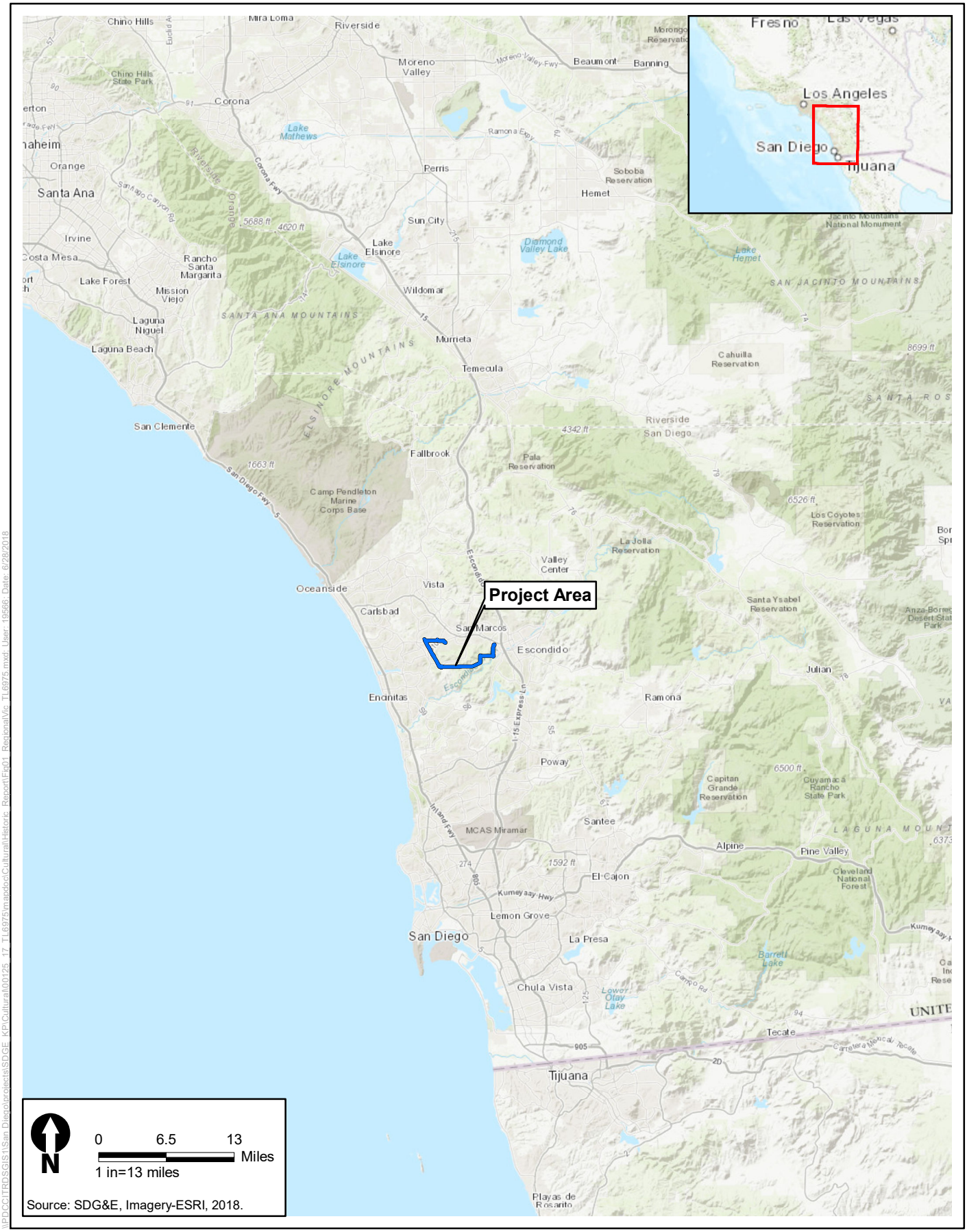


Figure 1
Regional Location
TL 6975 Historical Resources Inventory and Evaluation

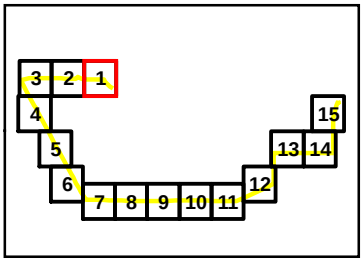
Figure 2
Project Location
TL 6975 Historical Resources Inventory and Evaluation

Legend

Structure Dates

- 1959
- 1964
- 1967
- Less than 50 years old
- Stub (Less than 50 years old)

- TL6975
- Substation



Source: SDG&E, ICF, BING, 2018

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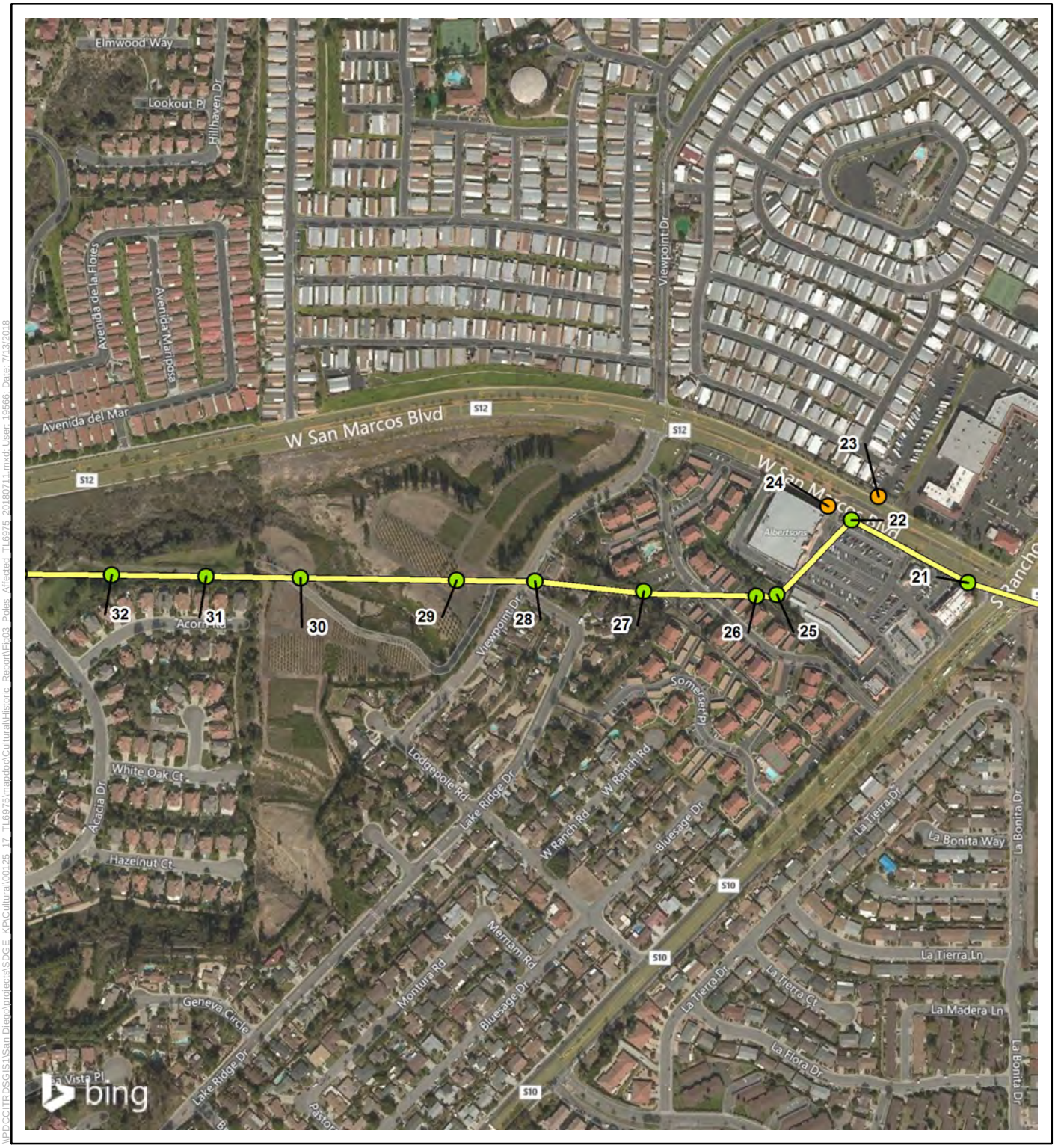
Figure 3 Sheet 1
Corridor Poles to be Affected by Proposed Project
TL 6975 Historical Resources Inventory and Evaluation



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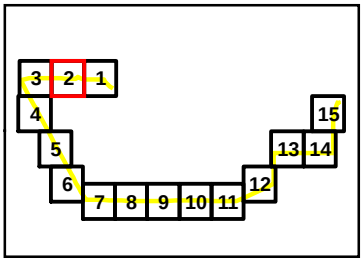
Structure Dates

- 1959
- 1964
- 1967
- Less than 50 years old
- Stub (Less than 50 years old)

- TL6975
- Substation



Source: SDG&E, ICF, BING, 2018

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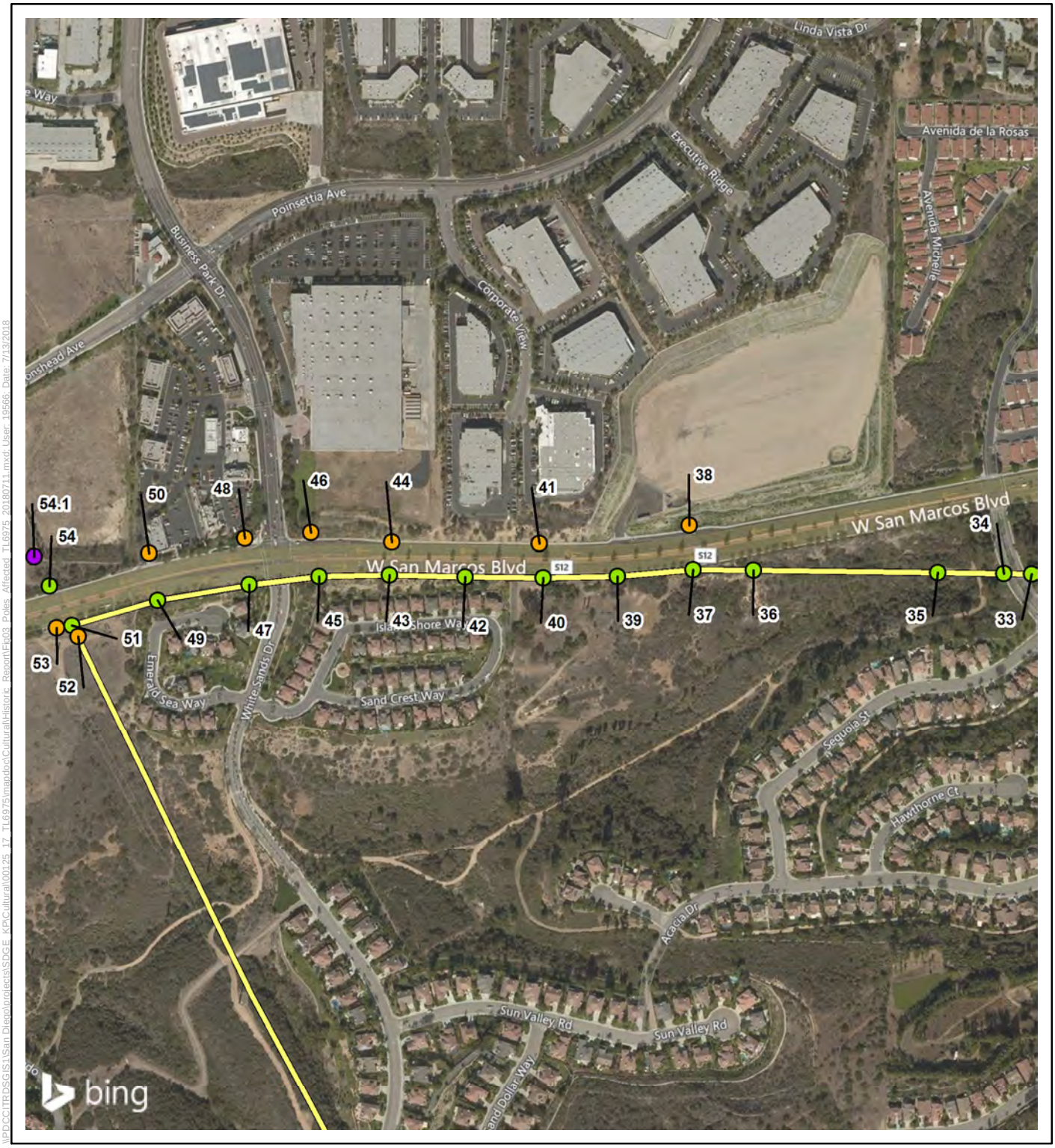
Figure 3 Sheet 2
Corridor Poles to be Affected by Proposed Project
TL 6975 Historical Resources Inventory and Evaluation



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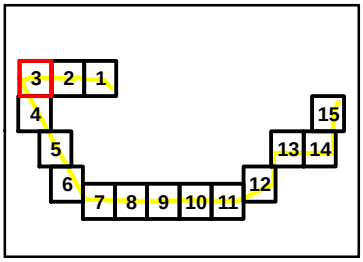
Structure Dates

- 1959
- 1964
- 1967
- Less than 50 years old
- Stub (Less than 50 years old)

- TL6975
- Substation



Source: SDG&E, ICF, BING, 2018

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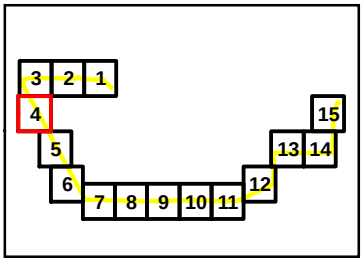
Figure 3 Sheet 3
Corridor Poles to be Affected by Proposed Project
TL 6975 Historical Resources Inventory and Evaluation

Legend

Structure Dates

- 1959
- 1964
- 1967
- Less than 50 years old
- Stub (Less than 50 years old)

- TL6975
- Substation



Source: SDG&E, ICF, BING, 2018

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Figure 3 Sheet 4
Corridor Poles to be Affected by Proposed Project
TL 6975 Historical Resources Inventory and Evaluation

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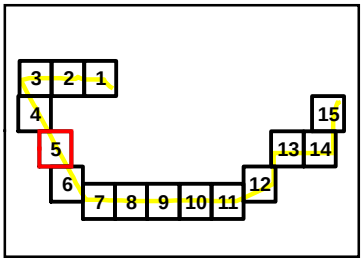
Structure Dates

- 1959
- 1964
- 1967
- Less than 50 years old
- Stub (Less than 50 years old)

- TL6975
- Substation



Source: SDG&E, ICF, BING, 2018

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Figure 3 Sheet 5
Corridor Poles to be Affected by Proposed Project
TL 6975 Historical Resources Inventory and Evaluation

Legend

Structure Dates

- 1959
- 1964
- 1967
- Less than 50 years old
- Stub (Less than 50 years old)

- TL6975
- Substation

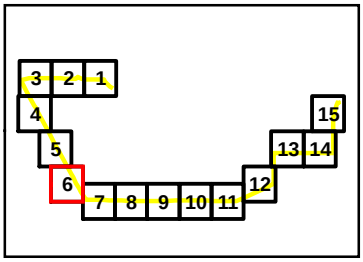

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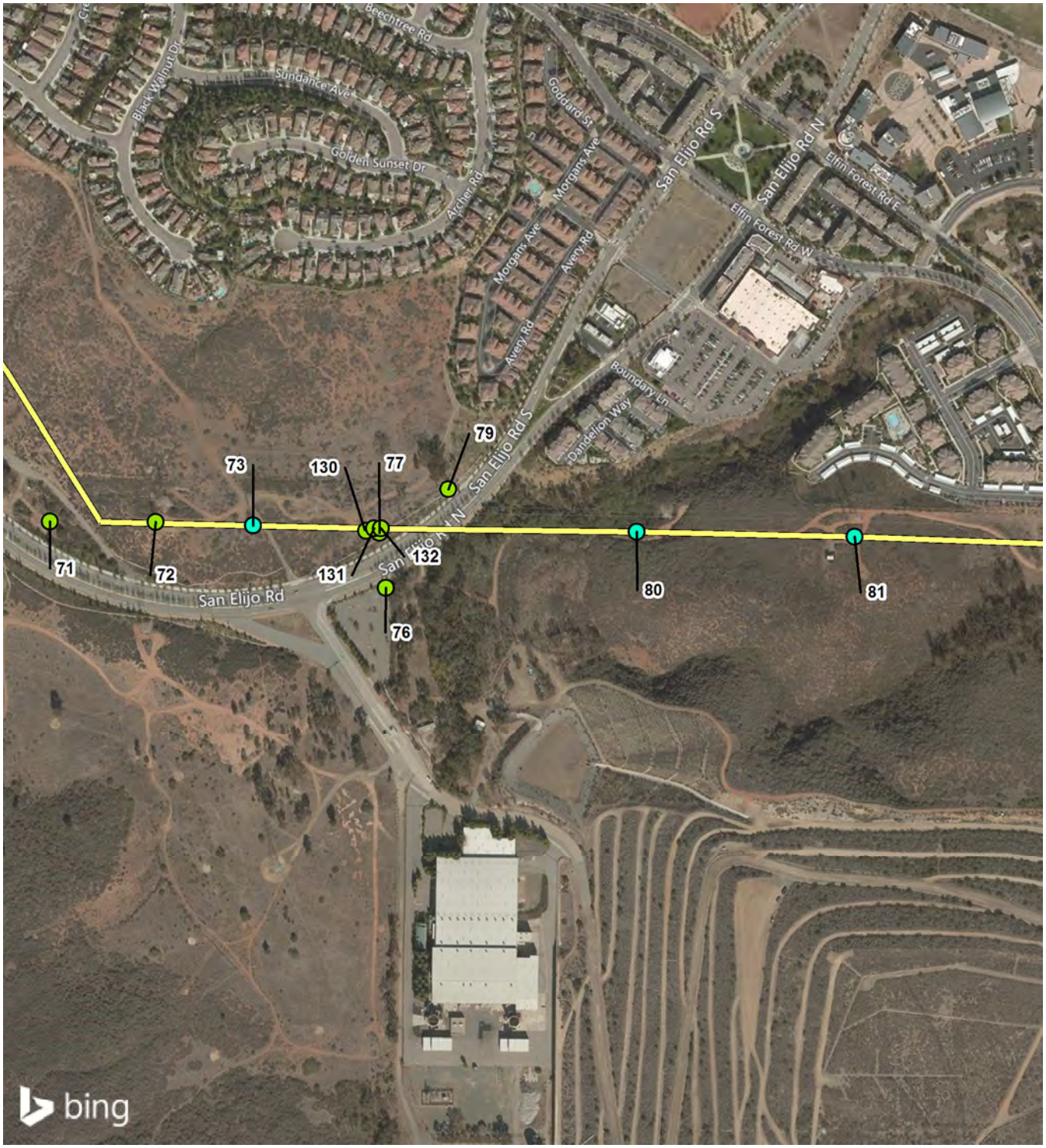
Figure 3 Sheet 6
Corridor Poles to be Affected by Proposed Project
TL 6975 Historical Resources Inventory and Evaluation



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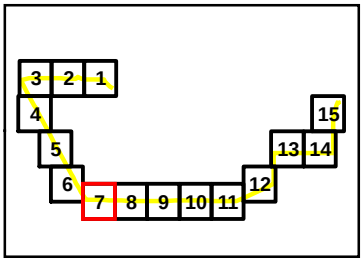
Structure Dates

- 1959
- 1964
- 1967
- Less than 50 years old
- Stub (Less than 50 years old)

- TL6975
- Substation



Source: SDG&E, ICF, BING, 2018

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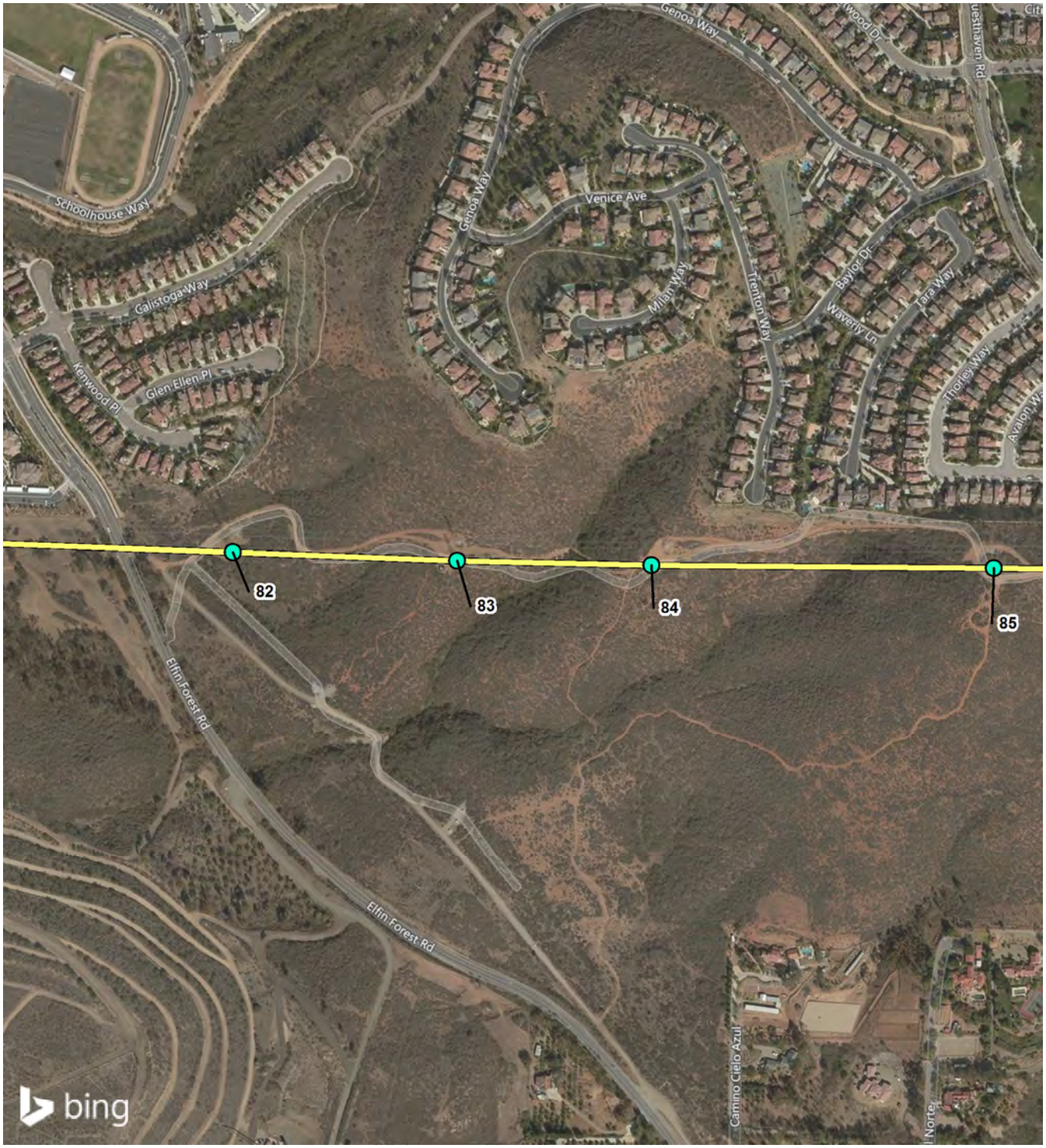
Figure 3 Sheet 7
Corridor Poles to be Affected by Proposed Project
TL 6975 Historical Resources Inventory and Evaluation



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Structure Dates

- 1959
- 1964
- 1967
- Less than 50 years old
- Stub (Less than 50 years old)

- TL6975
- Substation

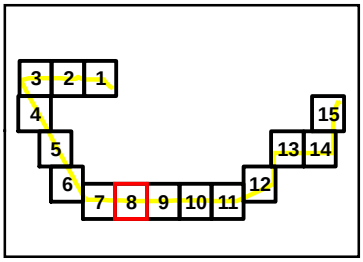

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Figure 3 Sheet 8
Corridor Poles to be Affected by Proposed Project
TL 6975 Historical Resources Inventory and Evaluation

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Structure Dates

- 1959
- 1964
- 1967
- Less than 50 years old
- Stub (Less than 50 years old)

- TL6975
- Substation

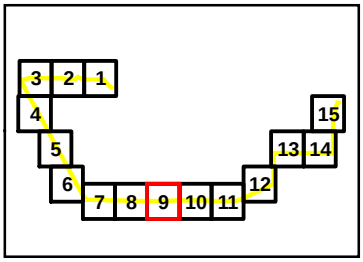

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Figure 3 Sheet 9
Corridor Poles to be Affected by Proposed Project
TL 6975 Historical Resources Inventory and Evaluation

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Structure Dates

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- 1964
- 1967
- Less than 50 years old
- Stub (Less than 50 years old)

- TL6975
- Substation

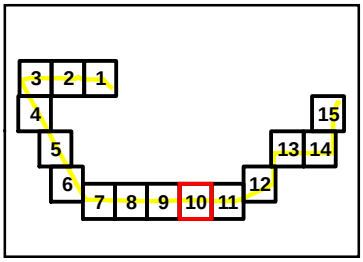

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Figure 3 Sheet 10
Corridor Poles to be Affected by Proposed Project
TL 6975 Historical Resources Inventory and Evaluation

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Structure Dates

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- 1964
- 1967
- Less than 50 years old
- Stub (Less than 50 years old)

- TL6975
- Substation

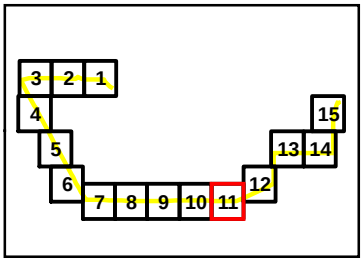

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Figure 3 Sheet 11
Corridor Poles to be Affected by Proposed Project
TL 6975 Historical Resources Inventory and Evaluation

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Structure Dates

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- 1964
- 1967
- Less than 50 years old
- Stub (Less than 50 years old)

- TL6975
- Substation

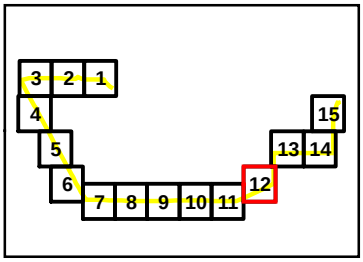

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Figure 3 Sheet 12
Corridor Poles to be Affected by Proposed Project
TL 6975 Historical Resources Inventory and Evaluation

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Structure Dates

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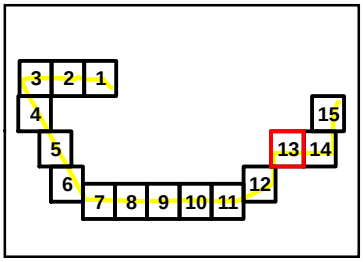
- 1964
- 1967
- Less than 50 years old
- Stub (Less than 50 years old)

- TL6975
- Substation



Source: SDG&E, ICF, BING, 2018

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Figure 3 Sheet 13
Corridor Poles to be Affected by Proposed Project
TL 6975 Historical Resources Inventory and Evaluation

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Structure Dates

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- 1964
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- Stub (Less than 50 years old)

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- Substation

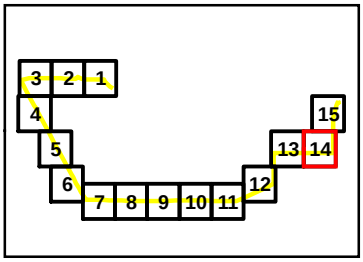

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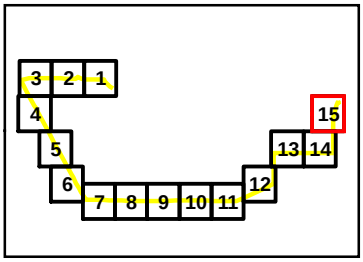
Figure 3 Sheet 14
Corridor Poles to be Affected by Proposed Project
TL 6975 Historical Resources Inventory and Evaluation

Legend

Structure Dates

- 1959
- 1964
- 1967
- Less than 50 years old
- Stub (Less than 50 years old)

- TL6975
- Substation



Source: SDG&E, ICF, BING, 2018

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Figure 3 Sheet 15
Corridor Poles to be Affected by Proposed Project
TL 6975 Historical Resources Inventory and Evaluation

Chapter 2
Methods

2.1 Evaluation Methods

ICF identified sub sets of pole and tower types along the power lines within the Project Corridor. As addressed in more detail below, two power line segments within the Project Corridor do not contain historic-era poles or towers. Another segment contains two lines, one with towers that date to the historic era and one with towers that do not. A total of two lines, TL 680C and TL 13811A, are carried by at least some poles or towers 50 years old or older within the Project Corridor. Sub sets of pole and tower types on these two lines were identified based on their original installation dates. ICF made use of available SDG&E pole cards to identify installation dates for the poles and towers that would be subject to Proposed Project impacts. The most thorough of such pole cards list installation date, modification date, height, number of wires, and voltage capacity. However, many of the available pole cards for towers or poles within the Project Corridor provide more limited information, and some do not provide installation dates. Also, pole cards are not available for a substantial number of poles and towers within the Project Corridor. Therefore, in some cases, dates of installation were determined or estimated by inspecting poles or towers during the survey. In addition to survey inspection, ICF staff made use of historic aerial photographs and USGS topographic maps to estimate installation dates for poles and towers for which installation dates were missing or for which there were no pole cards. The ages of the two substations within the Project Corridor were also estimated using historic aerial photographs and USGS topographic maps.

The California Public Utilities Commission's (CPUC) General Order No. 131-6 defines distribution lines, power lines, and transmission lines according to voltage: "For the purposes of this General Order, a transmission line is a line designated to operate at or above 200 kV. A power line is a line designed to operate between 50 and 200 kV. A distribution line is a line designed to operate under 50 kV" (CPUC 1995). All of the lines within the Project Corridor are distribution lines that operate under 50 kV or power lines that operate above 50 kV and below 200 kV. The remainder of this study uses this terminology to refer to the existing lines that would be affected by the Proposed Project. However, these terms were not used in the same way during the historic period. For this reason, discussions of historic-period lines and the history of electric infrastructure development in the remainder of this study do not adhere to General Order No. 131-6 terms and kV classifications. In those contexts, the term "transmission line" is used for a line that transmitted electricity at distance during the historic period, and "distribution line" is used for a line that distributed electricity locally during the historic period.

2.2 Field Methods

On June 8, 2018, ICF architectural historian Timothy Yates and ICF archaeologist Nara Cox surveyed the Project Corridor. Yates and Cox documented at least one example of each pole or tower sub type in the Project Corridor with digital photographs. The entire Project Corridor was assessed visually, either through pedestrian survey or from an automobile, to confirm the presence of poles and towers indicated by Project geographic information system (GIS) data and information from SDG&E

pole cards. Because one of the substations within the Project Corridor is over 50 years old and one appears to be 49 years old, ICF documented both substations, though under conditions of limited access. ICF took photographs through spaces between substation fence elements or by holding a camera above fences. ICF also made use of bird's-eye aerial photographs to identify substation elements.

2.3 Research Methods

ICF conducted research using a variety of resources prior to and following the survey. ICF staff consulted previous record searches conducted for the Proposed Project as well as an updated records search (2017) provided to ICF by SDG&E under contract with the South Coastal Information Center for the purposes of this analysis. The record searches yielded no records for historic-era electrical infrastructure within the Project Corridor.

This study draws heavily from *Historic Evaluation of Electrical Transmission and Distribution Lines in the Cleveland National Forest (CNF) for San Diego Gas and Electric's (SDG&E) Master Special Use Permit (MSUP),* prepared for SDG&E by Jennifer Gorman, Shelby Castells, and Sinéad Ní Ghabhláin of ASM Affiliates, Inc. (2015). SDG&E provided ICF with this ASM report and with available pole cards for poles and towers within the Project Corridor prior to the survey. The current study also draws from Southern California Edison's *Historic-Era Electrical Infrastructure Management Program for the Identification, Review, Exemption, and Treatment of Generating Facilities, Transmission Lines, Subtransmission Lines, Distribution Lines, and Substations within the Southern California Edison Company's Service Territory* (SCE 2015), prepared by Wendy Tinsley Becker, Audry Williams, Thomas Jackson, and Adam Sriro.

Historical research for this study was conducted at multiple repositories in the San Diego area. ICF consulted historic SDG&E annual reports and historic issues of SDG&E's *News Meter* at the San Diego History Center. ICF consulted additional SDG&E primary sources at the San Diego State University Library Special Collections. Copies of Iris Engstrand's and Kathleen Crawford's *Reflections: A History of the San Diego Gas & Electric Company, 1881-1991*(1991) and several local histories were gathered at the San Diego Public Library. These, along with historical resource studies, were consulted for information on the histories of San Marcos and Escondido, the two cities traversed by substantial portions of the TL 6975 Project Corridor, and the history of electrical infrastructure development in in vicinity of the Proposed Project. ICF also made use of the digitized, full-text searchable *San Diego Union* articles available at the Genealogy Bank website. Historic topographic maps were consulted using the USGS TopoView website. ICF consulted historic aerial photos at National Environmental Title Research, LLC's historicaerials.com website, and at the San Diego County Cartography Department.

Chapter 3
Historic Context

This historic context is organized around four main areas. Section 3.1 examines the development of electrical transmission line technology across California. Section 3.2 provides an overview of the history of electrical service in San Diego County. Section 3.3 addresses the history of the Project vicinity, with emphasis on Escondido and San Marcos. Section 3.4 identifies historical themes and periods of significance to frame the evaluation of historic-period transmission line resources in San Diego County. Section 3.1, "Transmission Line Technology in California," and 3.3, "Historic Context of the TL 6975 Corridor and Vicinity," were prepared by ICF for the current study. ICF's sections serve to augment previously prepared historic context sections on San Diego County themes applicable to the current study. Those previously prepared historic context sections are 3.2, "Historical Overview of Electrical Service in San Diego County," and 3.4, "Identified Historic Context Themes and Periods of Significance." Sections 3.2 and 3.4 are excerpted directly from *Historic Evaluation of Electrical Transmission and Distribution Lines in the Cleveland National Forest (CNF) for San Diego Gas and Electric's (SDG&E) Master Special Use Permit (MSUP)*, prepared by Jennifer Gorman, Shelby Castells, and Sinéad Ní Ghabhláin of ASM Affiliates, Inc. (2015).

3.1 Transmission Line Technology in California

Although overhead electric were first developed in Europe as early as the 1870s, the so-called "white coal" of hydroelectricity generation initiated and drove the evolution of transmission technology in California beginning in the 1890s. Constructed at a distance of 28 miles from Pomona to San Bernardino in 1891, the San Bernardino Light & Power Company's 5 kV transmission line was Southern California's first long-distance electricity transmission line. The following year, a 23-mile line completed between Riverside and Mill Creek operated as the first 10 kV commercial three-phase alternating current (AC) transmission line in the region. An advance beyond the Mill Creek system's transmission capacity, an 11 kV commercial three-phase AC line began transmitting electricity from the Folsom Powerhouse 22 miles to Sacramento in 1895. Transmission technology was improved at a fairly rapid pace thereafter. Voltage capacity reached 100 kV in 1907. Iron and sometimes steel lattice, tubular, or pipe poles carried electricity lines until the turn of the century. Thereafter, however, engineers increasingly opted for riveted steel lattice towers, which reduced labor costs, especially for higher-voltage lines (Becker et al. 2015:40–45, Williams 1997:176–177).

Existing insulator design limited transmission capacity to 60,000 volts until 1907. That year, E. M. Hewlett and H. W. Buck introduced the suspension insulator, which allowed long-distance transmission capacity to reach 100,000 kV. By 1909 three transmission lines could deliver as much as 100 kV of electricity at distances greater than 150 miles: Great Western Power's Las Plumas line from Big Bend to Oakland (155 miles); Colorado Power Company's Glenwood-Denver line (152 miles); and the Southern Power Company's Great Falls, South Carolina-Durham, North Carolina line (210) miles. By 1912, Pacific Gas and Electric Company (PG&E) had completed a 100,000 kV line from its Drum Powerhouse in Placer County to Oakland (110 miles) (Hughes 1983:280, 282; Van Wormer and Dolan 1999:15).

First developed by the Pacific Light and Power Company, which completed a 241-mile 150 kV line to Los Angeles in 1913, the Big Creek hydroelectric power transmission system would become the focal point of transmission technology advancement in the southern portion of California over the next decade. The Big Creek line set a new standard with steel lattice towers 41 feet high incorporating cross arms approximately 34 feet wide, which engineers designed to carry conduit at average lengths of 660 feet between tower locations. Southern California Edison (SCE) acquired the Big Creek system and began upgrading and building new lines with 220 kV capacity. This included augmenting existing towers to carry heavier loads. "Taking a cue from the Big Creek extensions," explains one study, SCE "engineers sought to design a larger Big Creek tower model for the next major transmission line. . . . [the] Vincent 220kV Transmission Line featured towers similar in appearance to the old Big Creek towers, but with additional height and subsequent cross-bracing to help support the structural load of the 220kV wire spanning the 224-mile" transmission line. SCE completed the Vincent line in 1926. In Northern California, PG&E had completed a 202-mile 220 kV line from its Pit River hydroelectric system to Sacramento 4 years earlier (Becker et al. 2015:49, quoted; *Electrical West* 1962:394; Van Wormer and Dolan 1999:15).

The development of Boulder Dam during the 1930s resulted in the next major advancement in long-distance electricity transmission. SCE constructed three single-circuit 220 kV lines to transmit power from Boulder Dam on the Colorado River to the Los Angeles area. Known as the First, Second, and Third Boulder Lines, these transmission systems began delivering power to the Los Angeles area in 1938. However, the most noteworthy Southern California transmission line developed in association with Boulder Dam was constructed by the Los Angeles Department of Water and Power. At the time of completion in 1936, the Los Angeles Department of Water and Power's Boulder Dam – Los Angeles 287.5 kV line reached "the highest commercial operating voltage in the world" and represented the "pinnacle of achievement in point to point high voltage power transmission" (*Electrical West* 1962:394; Van Wormer and Dolan 1999:13, quoted).

Long-distance transmission capacity would reach the 300 kV mark by 1940. After World War II, the effort to connect the electrical systems of large regions fueled the most noteworthy advances in transmission technology. The interconnection effort in the Western United States was known as the Pacific Intertie Project. California-based SCE and PG&E joined with the Bonneville Power Administration and Portland General Electric to construct twin 500 kV lines from Southern California to Washington in 1960. Engineers designed larger steel lattice towers to accommodate the 500 kV lines' heavier loads. As one study explains, the larger towers had "'cinched waists' massing with a wide base, narrow mid-point, and extended horizontal cross arms," and larger insulators than earlier towers (Becker et al. 2015:51).

3.2 Historical Overview of Electrical Service in San Diego County

3.2.1 Early Gas and Electric Company Formation, 1881–1904

The City of San Diego's move from Old San Diego or Old Town to Horton's subdivision in New Town and the subsequent population boom, spurred a need for additional municipal resources, especially water, sewer, and gas services. During the 1870s, several gas distribution services were established only to fail quickly (Engstrand and Crawford 1991; Smythe 1908). Finally, in 1881, a group of City

leaders, R. M. Powers, O. S. Witherby, Bryant Howard, James Gordon, and E. W. Morse, launched the San Diego Gas Company (Dyke 1956; Smythe 1908). The San Diego Gas Company filed articles of incorporation on April 18, 1881, and began work with a capital stock of $100,000. Later that year the San Diego Gas Company began construction on a gas plant at 10th and M (now Imperial) streets, for a cost of $30,000 (Smythe 1908). By June 2, 1881, the gas plant had been completed and three miles of gas mains had been constructed within Horton's Addition (Engstrand and Crawford 1991). The San Diego Gas Company began gas distribution to their initial 89 customers in the summer of 1881 (Smythe 1908). The City of San Diego quickly purchased 25 street lamp posts, bringing illumination to New Town San Diego for the first time, as was reported in The *San Diego Union* on July 30, 1881 (*San Diego Union* 1881). By 1882, the San Diego Gas Company was advertising both their gas distribution services and gas stoves for sale and gas lines were erected across San Diego. The San Diego Gas Company originally refined gas from crude petroleum, purchased from Peru and later Ventura, California (Dyke 1956; Engstrand and Crawford 1991). By April 1883 a coal gas plant was constructed. Rapid population growth within San Diego in the early 1880s prompted large increases in both gas production needs and new customers.

The modern-day SDG&E power grid was initiated by the Jenney Electric Company, of Indianapolis, Indiana, in 1886. The City of San Diego requested bids for the construction of four electric street lights in 1884 (*San Diego Union* 1884). The Jenney Electric Company won the bid and constructed an electrical plant at 2nd and J streets, for approximately $30,000 (Engstrand and Crawford 1991; Smythe 1908). The electrical plant had two 100-horse-power boilers which were able to operate four 30-light direct current arc light generators. The City of San Diego was first illuminated by electricity in March of 1886 (*San Diego Union* 1886; *San Diego Sun* 1886). San Diego's first electric street lights were arc lamps mounted on steel towers, to a maximum extent of 125 feet in height (Dyke 1956). However, the Jenney Electric Company failed later in the fall of 1886 and its plant and properties were purchased by E. S. Babcock and H. L. Story.

Babcock and Story had started development on Coronado in 1880 and after the purchase of the Jenney Electric Company, the Coronado Gas and Electric Company was established in January of 1887, with the use of the Jenney Electric Company's modest infrastructure. They continued providing electricity to San Diego's street lamps and made plans to supply electricity and gas to Coronado. Due to financial pressures, the Coronado Gas and Electric Company consolidated with the San Diego Gas Company in the spring of 1887, becoming the San Diego Gas, Fuel, and Electric Light Company, incorporating on May 12, 1887 (Engstrand and Crawford 1991; Smythe 1908).

The San Diego Gas, Fuel, and Electric Light Company's customer base grew rapidly across downtown San Diego and it provided services to many of the early hotels and downtown businesses, such as to the enterprises of George Marston, Horton's Hotel, Hotel del Coronado, and the *San Diego Union* Newspaper (Engstrand and Crawford 1991). The Company continued to expand their infrastructure and built a new electric generating plant, later becoming known as Station A, at 10th and Imperial streets, next to their gas plant.

San Diego's population boom of the 1880s quickly crashed and the San Diego Gas, Fuel, and Electric Light Company's was left with more infrastructure and the ability to produce thousands more cubic feet of gas per day than needed. During the economic downturn, San Diego went from a high of 173 electric lights to 120 (Engstrand and Crawford 1991). Throughout the 1890s, the economic downturn and competition from other companies caused rate conflicts, a feature of the utility business that would continue indefinitely.

The San Diego Gas, Fuel, and Electric Light Company's rates were forced to drop further in 1902 when the City of San Diego began the process of acquiring and operating its own gas plant; which never came to fruition. Also, the company was forced to terminate the original Westinghouse generators it acquired from the Jenney Electric Company, due to their age, and replace them with two alternating current generators (Smythe 1908). The need to modify and replace electrical infrastructure in order to meet operational needs and safety requirements continuously characterized electric service development in San Diego County and elsewhere throughout the twentieth century. Even with the new generators the company could not meet the needs of the growing population of San Diego in 1903 and 1904, and the plant had to expand. In 1904, the San Diego Gas, Fuel, and Electric Light Company's prices had dropped from $5.00 per cubic feet in 1881 to $1.50 per cubic feet and they had constructed an electrical distribution system of 30 miles of pole lines with a total of 1,374 utility poles and a gas distribution system of 41.2 miles (Engstrand and Crawford 1991).

3.2.2 Expansion of Service

In the early 1900s, the San Diego Gas, Fuel, and Electric Light Company was unable to raise enough capital to match the pace of growth in San Diego, and so in April of 1905 it was sold to H. M. Byllesby & Company of Chicago and incorporated as the San Diego Consolidated Gas & Electric Company (SDCG&E) (Dyke 1956; Lehman Brothers Collection 2012). Henry Marison Byllesby was an engineer and financier who owned utilities across the country. With an influx in funds the SDCG&E quickly began the needed expansions and provided gas and electric services to University Heights, La Jolla, Pacific Beach, Coronado, and National City.

While the SDCG&E provided gas and electric services to downtown San Diego, and the neighboring municipalities, other utility companies were established in population centers across the county, such as the Escondido Utilities Company, founded in 1910.

Further growth for SDCG&E continued in the 1910s, as did the expansion of their distribution services. In 1911, gas service reached Chula Vista and electrical services reached Grossmont, El Cajon, Lakeside, Santee, and Spring Valley. The following year gas service reached Lemon Grove and electrical service reached Sunnyside, Bonita, Nestor, and Palm City. Imperial Beach and San Ysidro were added in 1913 (Engstrand and Crawford 1991; Rush 1954). The expansion of the power grid to these communities increased their agricultural output providing an efficient way to pump water for irrigation and the beginning of the large chicken and turkey hatchery business in the County (Rush 1954). Gas and electric services also were established for some of the more rural areas of San Diego County in 1911, when SDCG&E sent engineers to tour back country areas, and to make demonstrations to rural residents about superiority of electric lights to gas or kerosene (Engstrand and Crawford 1991).

Electrical Distribution Growth, 1916–1940

The first of the SDCG&E's large-scale transmission lines across the County was constructed in 1916, when the company bought Oceanside Electric and Gas Company and extended its transmission line from Del Mar to Oceanside for a total cost of $37,000. Later the same year they purchased the Escondido Utilities Company for $40,000 (Engstrand and Crawford 1991).

The first high voltage transmission line and the company's first direct link to another major electric utility company was constructed in 1918. The transmission line spanned 75 miles from the City of

San Diego through Del Mar and Oceanside to San Juan Capistrano to tie in with the transmission system of SCE.

In 1919, San Diego's City Council voted to contract with the company to build a power line for the construction of Barrett Dam, near Campo (*San Diego Sun* 1919). The additional growth of electric and gas distribution strained SDCG&E's production infrastructure and in 1920 they bought "Station B" at the southwest corner of Kettner and Broadway, a power plant constructed by the San Diego Electric Railway Company in 1911. Station B became the primary production plant for the company until the 1940s. In just 15 years, from the start of the Byllesby Group's control of SDCG&E in 1905 to 1920 it had grown exponentially. In 1920, SDCG&E served more than four times the number of customers than in 1905, providing 1,100 kilowatts of electricity daily with the ability to generate 11,750 kilowatts and to more than 8 million in infrastructure and property (Engstrand and Crawford 1991).

The addition of high voltage transmission lines and SDCG&E's connection with other major utility companies spanned upgrades across their system. They upgraded from horse drawn wagons to motor vehicles in the early 1920s and purchased all new machinery for Station B, with the goal of providing a 200 percent increase in output. The upgrades included five new steel encased Babcock & Wilcox boilers and a new turbine, the largest on the Pacific Coast.

In 1921, construction began on an additional power plant, Station C at 4th and Ash streets. Station C was finished in 1923 and was intended to furnish all commercial direct current within the city and alternating current to the underground and overhead district north of Broadway and West of Balboa Park.

In 1922, another high voltage transmission line was constructed to connect with another major utility, further safeguarding the power supply for the County. A 16-mile-long 88,000 volt transmission line from the Escondido Mutual Water Company's Power Plant on the Rincon Reservation was constructed through the San Luis Rey River Canyon to the Henshaw Dam (Klauber 1925). This also marked the start of large scale expansion of services into the back country of San Diego County. The rough terrain across the backcountry was previously thought of as impassable, but Type – W poles, a light weight style of wooden poles, were used to aid construction across the seemingly inaccessible county. Also at Rincon in 1923, SDCG&E connected its transmission lines to the Southern Sierras Power Company in the Imperial Valley to provide protection of continuous service in the Imperial Valley (Cyr 1924; Lehman Brothers Collection 2012). The Southern Sierra Power Company, organized in 1911, brought transmission lines to agricultural territory across California, to supply electricity for water pumping, irrigation, and industrial needs. The Southern Sierras Power Company in 1914 was involved in the construction of the longest transmission line in the world, extending from Bishop Creek, California to Mexicali, Mexico for a distance of 425 miles. The transmission line passed through El Centro in Imperial County and could convey 55,000 volts (Gonden 1914).

In 1923, a total of $3,685,255 was spent on improvements across SDCG&E's territory which at that time reached Fallbrook, Henshaw Dam, Otay Dam, and Barrett Dam (Ayres 1924). Developments during the 1920s included: the construction of the Alpine Span in 1924, which stretched across 4,402 feet, and at the time broke records for a wooden terminal structure span (Ayres 1924); the construction of a 11,000-volt line from the San Pasqual Valley to Ramona in 1924; and the construction on a new line in the El Cajon Valley carrying 66,000 volts (Klauber 1925). Additional

construction took place in 1927 as the El Cajon Substation was upgraded to 66,000 volts, to supply growth of services to the eastern side of San Diego County (Klauber 1927).

Concurrent with SDCG&E's growth in electrical and gas distribution, were sales of electrical and gas appliances to its customers. Six new appliance stores were opened in 1927. SDCG&E actively promoted all electrical and gas usages throughout the 1920s, including radio broadcasting, theater lighting, new businesses, and military presence (Engstrand and Crawford 1991).

To keep pace with the growth of customers, SDCG&E began construction on a new power plant, Station B, in 1928, which was planned to house a 28,000 kW electrical generator, the largest ever installed in San Diego (Raymond 1928a). In 1928, SDCG&E had more than 4,600 new electric customers, which equated to a 7.8 percent increase in demand for electricity (Raymond 1928b). During the end of the 1920s, SDCG&E began construction on new tie lines for transmission outside the city center and into more rural and remote parts of San Diego County. SDCG&E relocated the 66 kV transmission line between San Juan Capistrano and San Onofre, and extended existing transmission lines to include customers in Tijuana, and in El Monte (Klauber 1929). During the beginning of 1929, prior to the financial collapse and the Great Depression, SDCG&E advertised that the currently serviced territory had increased faster than the population of San Diego County, and their electrical distribution was leading the way for backcountry development (Lawrie 1929).

Although the great depression curtailed some of SDCG&E's growth, they further expanded in 1930 by buying the South Coast Gas Company which had been serving Carlsbad and Oceanside. In 1931, SDCG&E initiated a project to lay 26 miles of transmission pipe to send gas from La Jolla to Carlsbad and Oceanside. To provide more electricity to San Diego, they purchased a share of the power produced by the Boulder Dam, now known as the Hoover Dam (Lehman Brothers Collection 2012).

During this period of expansion new technological advances in transmission poles were taking place. In 1930, San Diego County's first steel poles were erected carrying a tie line between the power plants of Station B and Station F, located in east San Diego County. The galvanized steel poles held conduits carrying cables on the inside of the pole, and were the largest steel poles ever fabricated, measuring 7 feet in circumference at the base and 65 feet high (Creveling 1930).

Further expansion into San Diego County's backcountry took place throughout the 1930s when a 23-mile, 66 kV transmission line between El Cajon and Escondido was completed in 1930 (Klauber 1930). In 1931, construction of a 21-mile, 11,000 volt transmission line from Ramona to Julian was begun. This line, which installed over 300 wooden poles, employed two crews of 15 men for construction due to the rough terrain and plethora of natural hazards in the backcountry (Creveling 1931; Krames 1931). Electricity reached Julian on January 16, 1932, from Ramona (Engstrand and Crawford 1991). SDCG&E also started work on a 35-pole extension of the electrical grid from Descanco to Pine Valley, and a 24-pole extension from the Descanso store to Descanso Junction (Krames 1932). This expansion of service became unusual as the Great Depression worsened over the early 1930s, and new distribution slowed considerably, as even a 13-pole extension became a large job for SDCG&E (Krames 1932).

The City of San Diego and SDCG&E's battle over prices continued and on December 6, 1931, the *San Diego Union* newspaper reported that the city thought the utility's prices were excessive and San Diego should begin its own natural gas and electrical distribution (*San Diego Union* 1931). The city continued to contemplate municipal ownership of gas and electric service throughout the 1930s, but was ultimately unsuccessful (Engstrand and Crawford 1991).

3.2.3 San Diego Gas and Electric Company, 1940–Today

In 1935, the Public Utility Holding Act passed, which changed the ownership rules of holding companies and forced them to integrate and coordinate their utility systems. As a result, SDCG&E was forced to offer the sale of stock and was renamed the San Diego Gas & Electric Company (SDG&E).

SDCG&E had been owned by Engineering and Management Company since 1905, and was sold in 1940 to the Standard Gas and Electric Company, a subsidiary of the Standard Power and Light Corporation. After the formation of SDG&E, the company became largely an independent organization, locally managed and mostly locally owned (Lehman Brothers Collection 2012).

While minimal growth took place in the 1930s, besides providing power to the backcountry areas that were previously without, the 1940s was a time of huge expansion for SDG&E, mainly due to San Diego's large military presence and the population surge it brought. Electrical sales in 1941 jumped 27 percent and SDG&E's electrical grid peaked at 24 percent above the year before (Engstrand and Crawford 1991). During this time of growth the company faced a labor and materials shortage as they were limited by the war effort.

Maintenance across the system also fell behind during World War II as SDG&E did not have the staff to fill all positions needed. Maintaining a constant and reliable source of electricity became even more important for the utility during World War II and several new transmission lines were constructed to provide interconnections with SCE, to prevent a loss of power across southern California. SDG&E constructed a new 132-kV transmission line from the Mission Substation in Mission Valley north to the San Juan Capistrano Substation. At the same time, SCE built a line from its Chino Substation south to the San Juan Capistrano. The result was a 104-mile line connecting the SCE and SDG&E systems that provided for SDG&E to purchase power generated at Boulder Dam (Engstrand and Crawford 1991).

Much of the growth of SDG&E's transmission and distribution system in the 1940s was focused on connecting new customers in outlying areas where SDG&E distribution lines had not yet reached. The government supported expanding the grid to the rural areas of the county as farming districts were encouraged to produce more food for the war effort, which increased the demand for electricity to support additional irrigation. In 1945, SDG&E earmarked $8 million dollars for expansion to update their generators, improve distribution lines, and extend distribution lines to rural areas, such as Borrego Springs. By the late 1940s, more than 1,741 miles of utility lines were added to SDG&E's distribution system, mainly in rural areas (Engstrand and Crawford 1991).

Through the 1950s, additional expansion took place on pace with the growth of population in San Diego County. Additional power stations were constructed, including the Encina Power Plant at Carlsbad, which began operating in 1954. The company also updated other power stations and expanded the gas distribution system. SDG&E's rates were again contested and they requested and received a rate increase in 1954 (Engstrand and Crawford 1991; Lehman Brothers Collection 2012).

After the rapid expansion of service during the post-World War II period, SDG&E began research into alternative forms of energy from nuclear power in the 1960s, to solar and wind power in the 1990s (Lehman Brothers Collection 2012). From the post-war period onward SDG&E worked to modernize their power grid to meet increased electricity needs across San Diego County.

3.3 Historic Context of the TL 6975 Corridor and Vicinity

3.3.1 Escondido

In 1886, during the great Southern California land boom that followed completion of transcontinental railroad connections into the region, the Escondido Land & Town Company acquired the El Rincón del Diablo Rancho and began subdividing it for development of citrus farms and vineyards. The town of Escondido would take shape within the former boundaries of the Rancho. In 1888, when Escondido formally incorporated as a city, it had approximately 500 residents (McGrew 1988:15–16).

As with other emerging agricultural towns in late-nineteenth-century Southern California, Escondido's success depended on the development of northern San Diego County's first major water development project. After the failure of the San Luis Rey Flume Company, which had developed plans for a reservoir and conveyance system, the owners of the Escondido Land & Town Company formed the Escondido Irrigation District. In 1895, soon after completing a flume that fed the small Bear Valley Reservoir, the law enabling creation of the irrigation districts was declared unconstitutional. Formed in 1905, the Escondido Mutual Water Company took over the troubled flume. Five years later, the company replaced all of the flume sections with tunnels and open concrete ditches. Still, water supply continued to be a contentious problem in the Escondido area. The system was improved again in the early 1920s, when the Mutual Water Company raised the Bear Valley Reservoir to a height of 95 feet to enlarge its storage capacity, and the San Diego County Water Company improved the conduit and increased its conveyance capacity. In 1924 the Mutual Water Company renamed the reservoir in honor of A. W. Wohlford, the local banker who led efforts to maintain and improve the water system (McGrew 1988:30-38).

Electricity development for Escondido followed close on the heels of water development. The Escondido Utilities Company first delivered electricity to local users in 1910 from a hydro-electric power plant developed below the Bear Valley Reservoir by the Mutual Water Company, which established a second hydro-electric plant at the Rincon Indian Reservation making use of San Luis Rey River water. SDG&E purchased the Oceanside Electric & Gas Company in 1916, which had operated using gas and electric generators, and then acquired the Escondido Utilities Company in 1917. Later in 1917, SDG&E installed a 12 kV transmission line from Oceanside to Escondido. (Engstrand and Crawford 1991:249; Fisher 1942:3, 5; McGrew 1988:36).

Escondido soon became a center for processing and shipping the yields of local agricultural production. Agricultural cooperatives such as the Escondido Citrus Union and the Escondido Fruit Growers Association formed to serve local farmers. From 1916 to 1924, local land devoted to citrus production rose from 600 acres to 2,800. Whereas Escondido growers produced 64,470 boxes of lemons in 1911, that number rose to exceed one million by 1941. Between 1918 and 1943 orange production rose from 12,225 boxes to 1.4 million boxes. After citrus production, avocados became the second leading form of agricultural enterprise in the area over the course of several decades, and growers founded the California Avocado Exchange in 1924. Although disease reduced the crop in the 1930s it rebounded during the 1940s as demand for the fruit grew. Chicken farms also flourished in the Escondido area and elsewhere in San Diego County during this period. By 1930, Escondido's population had grown to 3,421 (ASM Affiliates 2018:15–16).

SDG&E continued to improve its system in the Escondido region during the 1920s and 1930s while continuing to purchase power generated by Escondido Mutual Water Company's hydro-electric plants. Writing in 1942, SDG&E's Escondido District Manager, Percy Fisher, explained:

> Our system in the Escondido territory expanded rapidly beginning in 1922, when the electric line was extended to the San Pasqual valley. In 1924 Ramona was connected, in 1930 Valley Center, in 1931 Rainbow Valley, in 1932 Julian and in 1936 Pala and Warner's Hot Springs. In addition to our continuous interchange with the Escondido Mutual Water Company, we have four other sources of supply for our 6412 electric customers there are two separate 66,000 volt feeders from San Diego, an 88,000 volt tie-in with the California Electric Power Company at Rincon, and the 12,000 volt line from Oceanside, which can be served either from San Diego or from the Southern California Edison Company via Capistrano (Fisher 1942:5).

Constructed during the early 1940s, the 138 kV line connecting to the SCE system at San Juan Capistrano and extending south to the Mission Substation occupied the western alignment of the TL 6975 Project Corridor (the alignment of today's TL 13811/13825). In 1954, as SDG&E's new Encina Power Plant began operations in Carlsbad, the company acquired the Escondido Mutual Water Company's electricity distribution system (Engstrand and Crawford 1991:155; SDG&E 1957; USGS 1949a, 1949b).

Agriculture continued to flourish in Escondido immediately after World War II, though economic change gradually altered the character of Escondido and many other San Diego County communities. The Metropolitan Water District's (MWD's) San Diego Aqueduct provided additional water supply that helped sustain the county's agriculture and its growing military facilities. Federal military investment stimulated growth in the regional defense and aerospace industries, which increased the county's population overall. Palomar Memorial Hospital opened in Escondido in 1950. The building's height reached nine stories with the addition of two floors in 1974, which made it the tallest building in north San Diego County. An Escondido population that stood at 6,544 in 1950 increased to 36,792 in 1970. During that period, new suburban housing tracts began to replace citrus orchards in Escondido and elsewhere in San Diego County (ASM Affiliates 2018:16; California Department of Finance 2018; Sherman 1999:111, 132).

3.3.2 San Marcos

The area encompassed by San Marcos today historically served as a cattle grazing tract for Mission San Luis Rey. With secularization of the missions, it became Rancho Los Vallecitos de San Marcos. A former Army officer who had fought in the Battle of San Pasqual and who owned the adjacent Rancho Guajome and Buena Vista eventually acquired Rancho Los Vallecitos de San Marcos. Hailing from Topeka, Kansas, Major Gustavus French Merriam came to the area in 1875 and homesteaded 180 acres at the edge of Couts' Rancho Vallecitos de San Marcos. During the land boom that occurred after the transcontinental railroad connection arrived in San Diego County in 1885, Couts' widow sold the rancho to O. S. Hubbell, who in turn sold it to the San Marcos Land Company. The company laid out the town of San Marcos in 5- to 10-acre lots. The town had a post office, a hotel, several stores, and 87 people on the voting rolls by 1892. Residents abandoned the original townsite and relocated south to a new site at Los Posas and Mission Roads, along the Escondido branch line constructed through valley by the California Southern Railroad (ASM Affiliates 2014:2; Carroll 1975:42–43, 48).

As with Escondido, agriculture drove the early economy of the San Marcos area. Producers cultivated vineyards and citrus and walnut orchards, and raised chickens and dairy cows. Donley

Gray attempted bring silk production to the San Marcos area in the 1920s. As a result, over 200,000 Mulberry trees were planted. The San Diego County Silk Company (later American Silk Factories) took over from Gray and attempted to establish a silk production facility that fell victim to the economic depression ushered in by the stock market collapse of 1929. During this period, dairy farms proved a more durable form of agricultural enterprise in the San Marcos area, spurred in part by increased demand for dairy products during World War I. As a town, San Marcos remained a small enclave of framed buildings along the railroad line throughout the pre-World War II decades of the twentieth century (Carroll 1975:59, 67).

New water supply from MWD's San Diego Aqueduct provided for the initial post-World War II growth of San Marcos. Arriving in San Marcos in 1951, William Buelow opened a barber shop and subsequently joined the effort to keep Escondido from annexing the unincorporated town of San Marcos. In 1956, construction of Palomar College began within what would become the City of San Marcos. Having previously traveled to Escondido to attend school, San Marcos students began classes at the new San Marcos High School in 1961. When San Marcos formally incorporated in 1963, its new city council appointed William Buelow as the city's first mayor. City business was conducted in existing buildings until an office building relocated from Escondido to a lot at Richmar Avenue and Twin Oaks Valley Road in 1968 that began serving as the first dedicated city hall. By then, developers had completed the Lake San Marcos development, an award-winning planned retirement community just beyond the city limits that included an artificial lake and 6,000 residences. According to U.S. Census data, the population of San Marcos stood at 3,896 in 1970. Over the next several decades, as new housing replaced agricultural land, San Marcos became one of the fastest growing cities in California. Its population more than quadrupled during the 1970s to reach 17,479 in 1980, and then more than doubled to 38,974 by 1990 (ASM Affiliates 2018:2–3; California Department of Finance 2018; Sherman 1999:109110).

3.4 Identified Historic Context Themes and Periods of Significance

3.4.1 Community Development, Early Power Line Development of San Diego County (1916–1930)

The infrastructure resources of SDG&E have the potential for association with important events that have made a significant contribution to the broad patterns of history in San Diego County. These events are related to the historic context theme of Engineering, and a sub-theme of Power Line Development of San Diego County with a period of significance from 1916 to 1930, beginning with the construction of the first large scale transmission lines and ending at the beginning of the Great Depression, which resulted in a decline in power line construction. During this period of significance, San Diego underwent large population growth that resulted in the expansion of power lines from prominent communities in the county.

Power lines eligible under this theme must have the ability to convey a strong association with this theme, such as the earliest or most significant/influential lines established. Eligible power lines under this theme must also retain the essential physical features that made up their character or appearance during the period of significance. Eligible power lines should retain some features of all

seven aspects of integrity, but most important are location, design, setting, feeling, and association. Two examples of power lines that are good representations of this theme are the 1916 Del Mar-Oceanside line and the first high voltage transmission line constructed in 1918 that spanned from San Diego through Del Mar and Oceanside to San Juan Capistrano. These power lines would be potentially eligible for the National Register of Historic Places (NRHP), the California Register of Historic Resources (CRHR), and/or the San Diego County Local Register of Historical Resources (Local Register) under Criteria A, 1, and/or 1, respectively.

3.4.2 Community Development, World War II and Post-War Power Line Development of San Diego County (1941–1968)

The infrastructure resources of SDG&E also have the potential for association with events that have made a significant contribution to the broad patterns of history in San Diego County in the mid-twentieth century. These events are related to the same historic context theme of Engineering, but under a sub-theme of Power Line Development of San Diego County with a period of significance from 1941 to 1968, beginning with the population boom that resulted from the increase of military presence in San Diego County that caused a high demand for the expansion of power lines to be constructed in San Diego County and extending through the post-war population boom. The period of significance ends in 1968 following recommended guidance for closing a period of significance 50 years ago when activities continued to have importance, but no more specific date can be defined to end the historic period, and there is no justification for exceptional significance to extend the period of significance to an end date within the last 50 years (NRHP 1997). The power lines constructed during this time were instrumental in providing interconnections with SCE to prevent a loss of power across southern California. The expansion of these lines continued through the post-World War II era and supported the population boom in San Diego County during that period.

Power lines eligible under this theme must have the ability to convey a strong association with this theme, such as the earliest or most significant/influential lines established. Eligible power lines under this theme must also retain the essential physical features that made up their character or appearance during the period of significance. Eligible power lines should retain some features of all seven aspects of integrity, but most important are location, design, setting, feeling, and association. Examples of power lines that would be good representations of this theme would be large-scale transmission lines that were constructed to service large populations in southern California, particularly those that were connected with the Hoover Dam's power output. Many of these lines were constructed along the coast of San Diego County. These associated power lines would be potentially eligible for the NRHP, CRHR, and/or Local Register under Criterion A, 1, and/or 1, respectively.

3.4.3 Engineering, Early Twentieth Century Structural Innovations in Power Line Construction in San Diego County (1916–1930)

The infrastructure resources of SDG&E also have the potential for association with technological advances in the engineering of transmission poles in the early twentieth century in San Diego County. These power lines could potentially be eligible for the NRHP, CRHR, and/or Local Register under Criterion C, 3, and/or 3, respectively, for embodying distinctive characteristics of a method of

construction for a power line that was considered technologically innovative during a period of significance of 1916-1930, beginning with the construction of the first large-scale transmission lines and ending at the beginning of the Great Depression, which resulted in a decline in power line construction.

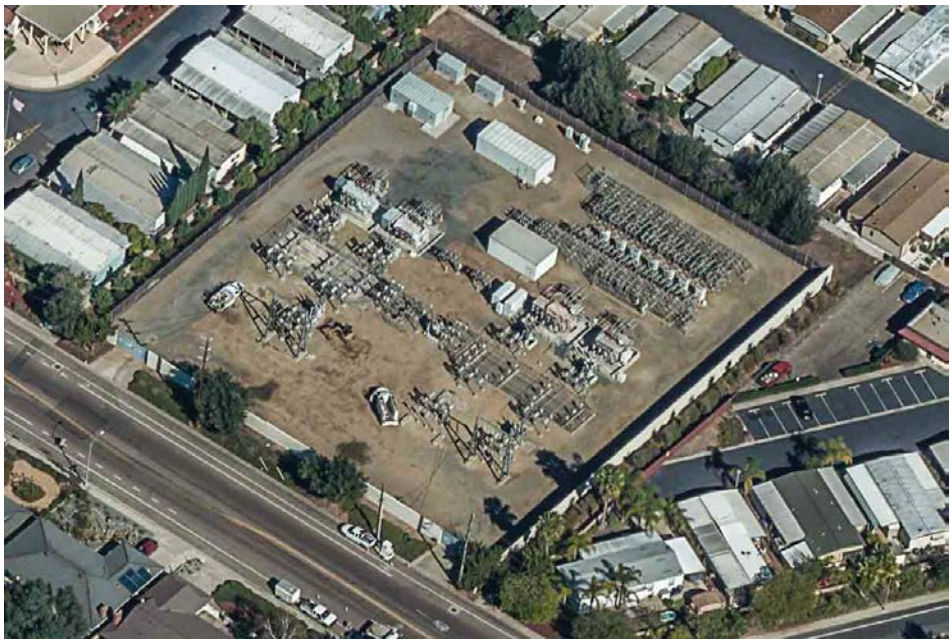
Power lines eligible under this theme must have the ability to convey a strong association with this theme, such as the first application of new engineering technologies, or the best remaining example of a technologically innovative that was widely used. Eligible power lines under this theme must also retain the essential physical features that made up their character or appearance during the period of significance. Eligible power lines should retain some features of all seven aspects of integrity, but most important under this theme are design, workmanship, and materials. An example of a power line that is a good representation of this theme is the Alpine Span, which was constructed in 1924 and was the longest wooden terminal power line constructed in San Diego County in the 1920s, and at the time of construction broke records for its span. While typical wood transmission lines were not considered innovative by design, the Alpine Span broke records for its construction as the longest wood power line, making it an engineering feat in the 1920s. Another good representation of this theme is the first galvanized steel poles that were constructed in 1930 in San Diego County. These steel poles were located between the power plants of Station B (located in downtown San Diego) and Station F (located in east San Diego County) and were 7 feet in circumference and 65 feet tall. They were considered to be innovative in their design and construction at that time.

Chapter 4
Resource Descriptions

4.1 San Marcos Substation

San Marcos Substation occupies an approximately 1.5-acre property on the northeast side of La Sombra Drive (Figure 4). The facility is surrounded by a concrete block walls or fencing. Two power lines access the station, one from the southeast and one from the southwest. The lines connect to steel portals (or racks). The facility contains typical elements of a substation, including transformers, circuit breakers, switches, busbars and other equipment subject to alteration and replacement over the last 50 years. Much, if not all, of this electrical equipment is likely less than 50 years old. The substation has three modest-sized rectangular-plan utilitarian buildings and several smaller enclosed utilitarian structures. The buildings have no windows, save for vision lights at some entry doors, and they lack any sort of architectural expression. They are entirely commonplace examples of latter-twentieth-century substation construction.

Figure 4. Bird's Eye Aerial View of San Marcos Substation



4.2 TL 680C

Originally a distribution line and currently classified as a power line, TL 680C occupies a 2.57-mile segment of the Project Corridor that has been a power line or distribution line alignment for over 50 years. However, most of the poles carrying TL 680C have been replaced during the last 49 years, and a majority appear to have been replaced in the 1980s and 1990s. TL 680C runs northwest along La Sombra Drive 0.31 mile from San Marcos Substation, and west along W. San Marcos Boulevard and through an unnamed drainage south of W. San Marcos Boulevard for 2.08 miles. TL 680C crosses the corporate boundary between San Marcos and Carlsbad, continues along W. San Marcos Boulevard for a distance of 0.18 miles, and terminates at Lionshead Avenue. Forming the northwestern portion of the Project Corridor, most of TL 680C is aligned east-west. Poles carrying TL680C also carry(C)855 circuits.

The Project Corridor contains 46 existing structures associated with TL 680C. Reaching heights of up to 80 feet, 36 of these are wood and steel poles that carry the circuits. The remaining 10 structures are 25-foot or shorter wood or steel stub poles that support the poles but do not themselves carry power lines. The typical span between each pole structure is approximately 200 feet, with one span reaching 640 feet. Each pole structure is set 5 to 10 feet into the ground with guy-wire anchors and stub poles placed as necessary for structural integrity of the line. Each pole structure consists of a central pole, which may be of wood or steel construction, sets of cross arms, insulators, and other electrical equipment as needed. Table 1 provides information on nine TL 680C poles identified as representative sub types, and Figure 5 provides photographs of the nine subtypes.

Table 1. TL 680C Pole Sub Sample

Pole Location Number	Year Installed/Modified	Height (feet)	Carrying
54.1	1964 / 1965, 1982	60	TL 680C/C855
6	1967 / 1969, 1970, 1971, 1975, 1976, 1982, 1989	65	TL 680C/C855
30	Within last 49 years	55	TL 680C/C855
17	Within last 49 years	20	No info
28	1982 / 1983, 1984	65	TL 680C/C855
25	1982, 1991	65	TL 680C/C855
22/24	Within last 49 years/1982, 1991	25/90	TL 680C/C855 TL 680C/C855
21	1991	95	TL680C/C855
5	Within last 49 years	25	COMM

Figure 5. TL 680C

Pole Loc. 54.1: installed 1964, wood, looking northwest

Pole Loc. 6, installed 1967, wood, looking southeast

Pole Loc. 30: recent steel pole, looking south

Pole Loc. 17: wood stub under 50 years old, looking southeast

Pole Loc. 28: installed 1982, wood, looking east

Pole Loc. 25: recent steel pole, looking east

Pole Loc. 22: installed 1991, wood; Pole Loc. 24: recent steel stub, looking west

Pole Loc. 21: installed 1991, wood, looking southeast

Pole Loc. 5: wood stub under 50 years old, looking east

4.3 TL 13811/13825

The portion of TL 13811/13825 within the Project Corridor stretches from near the corporate boundary between Carlsbad and San Marcos at W. San Marcos Boulevard to the southeast at a distance of approximately 2.8 miles to Meadowlark Junction. This power line alignment forms the western, northwest-southeast aligned portion of the Project Corridor. The Proposed Project would not alter the existing TL 13811/13825 poles. Instead, the Project would install new poles to carry TL 6975 within the TL 13811/13825 alignment of the Project Corridor. TL 13811/13825 is carried by 20 steel poles ranging from 60 to 70 feet high, most with three pairs of horizontal cross arms (Figure 6). This power line alignment is over 50 years old (USGS 1949a, 1949b). However, all of the existing TL 13811/13825 poles within the Project Corridor are well under 50 years old, and no changes to those poles would occur as part of the Proposed Project. Moreover, although the TL 13811/13825 alignment within the Project Corridor is over 50 years old as a power line alignment, the alignment itself has no potential for historical significance as an element of electrical infrastructure because it contains no poles, towers, or other power line equipment that is 50 years or older. Therefore, the segment of TL 13811/13825 within the Project Corridor is not being formally evaluated for NRHP, CRHR, or Local Register eligibility below.

Figure 6. TL 13811/13825

TL 13811/13825 pole looking south from W. San Marcos Boulevard

TL 13811/13825 looking north from Via Allondra

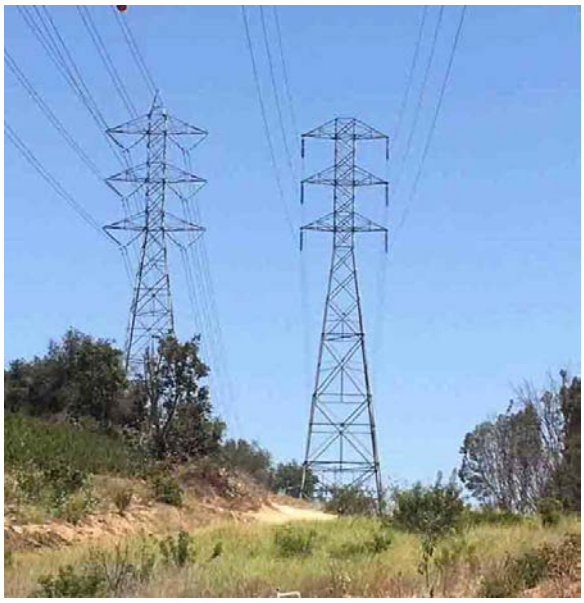
4.4 TL 13811A

Constructed in 1959 as a transmission line, TL 13811A is aligned at a distance of 7.4 miles within the Project Corridor from Meadowlark Junction to Harmony Grove Road in Escondido. It is currently de-energized. Forming the southernmost portion of the Project Corridor, most of TL 13811A is aligned east-west. In the vicinity of Harmony Grove an approximately 0.9-mile segment of TL 13811A is aligned northeast-southwest and an approximately 0.6-mile segment is aligned north-south. This portion of the Project Corridor contains two power lines with steel lattice towers. Aligned on the north side of this Project Corridor segment, TL 23011/23051 was constructed in 1973 and has not reached the 50-year age threshold for historical resource consideration. TL 13811A is carried by this Project Corridor segment's southern tower alignment (SDG&E 2018).

Within the Project Corridor, TL 13811A is carried by 29 steel lattice towers ranging from 50 to 87 feet high (Figure 7). The space between the towers ranges from between approximately 365 and 1,900 feet. Each of the TL 13811A steel-lattice towers has four cylindrical concrete anchorages. The majority of the tower structures consist of trapezoidal bodies with vertical, horizontal, and cross bracing. Above the bodies, cross arms project outward from opposing sides of squared cross-braced cages forming the upper portions of the towers. Six insulators are suspended vertically from the ends of the cross arms. Distinguishing the TL 23011/23051 towers on the north side of the Project Corridor segment from the TL 13811A towers are angled insulators and pyramidal cage caps. In the vicinity of Harmony Grove and Meadowlark Junction, circuits extend from TL 13811A towers to connect to other lines carried by steel or wood poles. None of these poles appear to be 50 years of age or older based on pole card information, or on a combination survey inspection and development patterns illustrated by historic and more recent topographic maps.

Figure 7. TL 13811A

Tower Loc. 86: looking southwest from near intersection of Questhaven Road and Old Glen Street in San Marcos

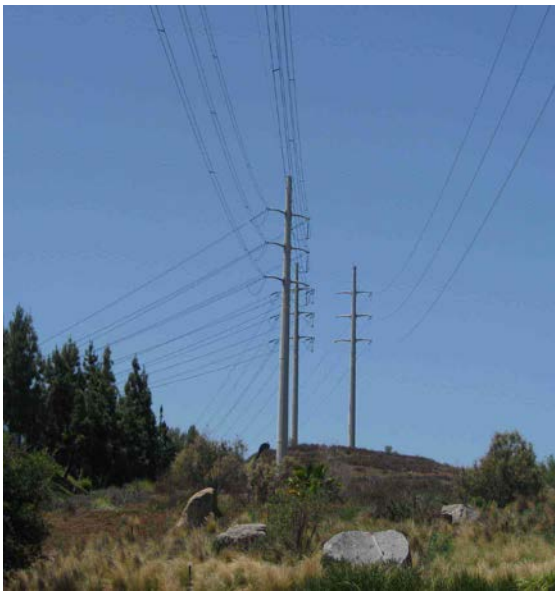


Tower Loc. 100 at right, looking north from Bresa de Loma Drive near Harmony Grove

4.5 Harmony Grove Road to Escondido Substation

The Project Corridor includes a 1.10-mile power-line alignment between Harmony Grove Road and Escondido Substation with 13 steel poles and one steel tower. The Proposed Project would add TL 6975 to some of the poles. Most of the 13 poles within this segment of the Project Corridor are steel double-circuit units ranging from 145 to 160 feet high, most with horizontally positioned steel cross arms. Two located near Escondido Substation are less than 100 feet high, one with five cross arms and the other with three pairs of angled cross arms. One steel H-frame tower within this portion of the Project Corridor rises to a height of approximately 52 feet at S. Andreasen Drive (Figure 8). This power line alignment is over 50 years old (USGS 1968c). However, all of the poles and the one H-frame tower within the Project Corridor between Harmony Grove Road and Escondido Substation are well under 50 years old, and therefore have no potential to qualify as historically significant. Moreover, the alignment itself has no potential for historical significance as an element of electrical infrastructure because it contains no poles, towers, or other power line equipment that is 50 years or older. For these reasons, no power line resources within the Project Corridor between Harmony Grove Road and Escondido Substation are being formally evaluated for NRHP, CRHR or Local Register eligibility below.

Figure 8. Harmony Grove Road to Escondido Substation Power Line Poles and Towers



Steel poles looking south-southeast from Auto Park Way

Steel H-frame tower looking north from S. Andreasen Drive; steel poles at rear

4.6 Escondido Substation

Situated amid parking lots and a nearby SDG&E facilities building, Escondido Substation occupies an approximately 5-acre square area between Auto Park Way and W. Mission Road (Figure 9). The terraced site is entirely surrounded by security fences. Eleven power lines access the facility, mostly from the south. This sizeable substation contains an abundance of transformers, circuit breakers, switches, busbars, capacitor banks, and other equipment that has been subject to alteration and replacement over the last 50 years. Much of this equipment is on concrete pads. Other elements have concrete footings. The facility contains five rectangular-plan utilitarian buildings as well as multiple smaller enclosed utilitarian structures. One of the buildings has exposed concrete block walls. Others have metal siding and roofing. Entirely lacking in architectural expression, the buildings and enclosed structures are commonplace examples of latter-twentieth-century substation construction. At the south side of the substation, multiple poles that would be affected by the Proposed Project carry power lines accessing the facility. Based on available pole cards, historical aerial photographs, and inspection during the survey, none of these poles appear to be 50 years of age or older.

Figure 9. Bird's Eye Aerial View of Escondido Substation

Chapter 5
Criteria for Evaluation

5.1 National Register of Historic Places

The NRHP is the nation's master inventory of known historic properties. It is administered by the National Park Service in conjunction with the State Historic Preservation Offices. The NRHP includes listings of buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, state, or local level. The NRHP criteria and associated definitions are outlined in National Register Bulletin 15, *How to Apply the National Register Criteria for Evaluation* (U.S. Department of the Interior, National Park Service 1988). The following is a summary of Bulletin 15.

Resources (structures, sites, buildings, districts, and objects) more than 50 years old can be listed in the NRHP provided they meet the evaluative criteria described below. However, properties less than 50 years old that are of exceptional importance or are contributors[1] to a district, and that also meet the evaluative criteria, can be included in the NRHP as well.

The NRHP includes four criteria under which a structure, site, building, district, or object can be considered sufficiently significant for listing on the NRHP.

A. Resources associated with events that have made a significant contribution to the broad patterns of history.

B. Resources associated with the lives of persons significant in our past.

C. Resources that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.

D. Resources that have yielded or may likely yield information important in prehistory or history.

Resources can be listed individually in the NRHP or as contributors to a historic district.

When nominating a resource to the NRHP, one must evaluate and clearly state the significance of that resource to American history, architecture, archaeology, engineering, or culture. A resource can be individually significant if it meets any of the above-stated criteria; only one criterion needs to be met for the eligibility of the resource to be considered.

A resource may be considered eligible for listing on the NRHP if it meets one or more of the above-stated criteria for significance and possesses integrity. Historic properties must retain their integrity to convey their significance. Although the evaluation of integrity is sometimes a subjective judgment,

[1] A *contributor* is a building, site, structure, or object that adds to the historic associations or historic architectural qualities for which a property is significant. The contributor was present during the period of significance, relates to the documented significance of the property, possesses historic integrity, provides important information about a period, or independently meets the NRHP criteria. A *non-contributor* does not add to the historic associations or historic architectural qualities because it was not present during the period of significance; has experienced alterations, disturbances, additions, or other changes; or does not independently meet the NRHP criteria.

it must always be grounded in an understanding of the resource's physical features and how they relate to its significance. The NRHP recognizes seven aspects or qualities, listed below, that define integrity.

- **Location:** the place where the historic property was constructed or the place where the historic event occurred.
- **Design:** the combination of elements that create the form, plan, space, structure, and style of a property.
- **Setting:** the physical environment of a historic property.
- **Materials:** the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.
- **Workmanship:** the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.
- **Feeling:** a property's expression of the aesthetic or historic sense of a particular period of time.
- **Association:** the direct link between an important historic event or person and a historic property.

To retain historic integrity, a resource should possess several of the above-stated aspects. The retention of specific aspects of integrity is essential for a resource to convey its significance. When the integrity of a resource is being evaluated, the resource should also be considered in comparison to similar properties; such comparison may be important for determining physical features that are essential to reflect the significance of a historic context.

5.2 CEQA

The California Environmental Quality Act (CEQA), which requires public agencies to evaluate the implications of their project(s) on the environment, includes significant historical resources as part of the environment. Public agencies must treat any cultural resource as significant, unless the preponderance of evidence demonstrates that it is not historically or culturally significant (California Code of Regulations [CCR] Title 14, Section 15064.5). A historical resource is considered significant if it meets the definition of a historical resource or a unique archaeological resource, as defined below.

5.2.1 Historical Resources

The term *historical resource* includes, but is not limited to, any object, building, structure, site, area, place, record, or manuscript that is historically or archaeologically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, per Public Resources Code (PRC) Section 5020.1(j). Historical resources may be designated as such through three different processes:

1. Official designation or recognition by a local government, pursuant to local ordinance or resolution per PRC Section 5020.1(k).
2. A local survey conducted pursuant to PRC Section 5024.1(g).

3. Listing in, or eligibility for listing in, the NRHP, per PRC Section 5024.1(d)(1).

The process for identifying historical resources is typically accomplished by applying the criteria for listing in the CRHR, per CCR Title 14, Section 4852, which states that a historical resource must be significant at the local, state, or national level under one or more of the following four criteria:

1. It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
2. It is associated with the lives of persons important in our past.
3. It embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of a master; or possesses high artistic values.
4. It has yielded, or may be likely to yield, information important in prehistory or history.

To be considered a *historical resource* for the purpose of CEQA, the resource must also have integrity, which is the authenticity of a resource's physical identity, evidenced by the survival of characteristics that existed during the resource's period of significance. Resources, therefore, must retain enough of their historic character or appearance to be recognizable as historical resources and convey the reasons for their significance. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association. It must also be judged with reference to the particular criteria under which the resource is eligible for listing in the CRHR, per CCR Title 14, Section 4852(c).

5.2.2 Thresholds of Significance

According to CEQA, a project that causes a substantial adverse change in the significance of a historical resource or a unique archaeological resource has a significant effect on the environment (CCR Title 14, Section 15064.5; PRC Section 21083.2). CEQA defines substantial adverse change as follows (CCR Title 14, Section 15064.5(b)):

- Physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be materially impaired.
- Demolition or material alteration in an adverse manner those physical characteristics of a historical resource that convey its historical significance and justify its inclusion in, or eligibility for inclusion in, the CRHR.
- Demolition or material alteration in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources, pursuant to Section 5020.1(k) of the PRC, or its identification in a historical resource survey meeting the requirements of Section 5024.1(g) of the PRC, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant.
- Demolition or material alteration in an adverse manner those physical characteristics of a historical resource that convey its historical significance and justify its eligibility for inclusion in the CRHR, as determined by the lead agency.

5.3 Local Regulations and Guidelines

The Proposed Project is not subject to local discretionary land use regulations because the California Public Utilities Commission (CPUC) has exclusive jurisdiction over the siting, design, and construction of the Proposed Project. The analysis of local regulations below related to cultural resources is provided for informational purposes.

5.3.1 County of San Diego

The County of San Diego maintains a Register of Historical Resources (Local Register) that was modeled after the CRHR. Significance is assigned to districts, sites, buildings, structures, and objects that possess exceptional value or quality illustrating or interpreting the heritage of San Diego County in history, architecture, archaeology, engineering, or culture. Any resource significant at the national or state level is by definition also significant at the local level. The criteria for eligibility for the Local Register are comparable to the criteria for eligibility for the CRHR and NRHP, but significance is evaluated at the local level. Included are:

1. Resources associated with events that have made a significant contribution to the broad patterns of California or San Diego County's history and cultural heritage; or
2. Resources associated with the lives of persons important to our past, including the history of San Diego County or its communities; or
3. Resources that embody the distinctive characteristics of a type, period, region (San Diego County), or method of construction, or represent the work of an important creative individual, or possesses high artistic values; or
4. Resources that have yielded or are likely to yield, information important in prehistory or history.

Districts are significant resources if they are composed of integral parts of the environment that collectively (but not necessarily as individual elements) are exceptional or outstanding examples of prehistory or history.

The County also treats human remains as "highly sensitive." They are considered significant if interred outside a formal cemetery. Avoidance of impacts is the preferred treatment.

Under County guidelines for determining significance of cultural and historical resources, any site that yields information or has the potential to yield information is considered a significant site (County of San Diego 2007:16). Unless a resource is determined "not significant" based on the criteria for eligibility described above, it will be considered a significant resource. If it is agreed to forego significance testing on cultural sites, the sites will be treated as significant resources and must be preserved through project design (County of San Diego 2007:19).

5.3.2 County of San Diego Resource Protection Ordinance

The County of San Diego uses the CRHR criteria to evaluate the significance of cultural resources. In addition, other regulations must be considered during the evaluation of cultural resources. Specifically, the County of San Diego's Resource Protection Ordinance (RPO) defines significant prehistoric and historic sites.

The County defines a significant prehistoric or historic site under its RPO as follows:

1. Any prehistoric or historic district, site, interrelated collection of features or artifacts, building, structure, or object either:
    a. formally determined eligible or listed in the NRHP; or
    b. to which the Historic Resource (H designation) Special Area Regulations have been applied; or
2. One-of-a-kind, locally unique, or regionally unique cultural resources which contain a significant; or
3. Any location of past or current sacred religious or ceremonial observances which is either:
    a. protected under Public Law 95-341, the American Religious Freedom Act, or Public Resources Code Section 5097.9, such as burials, pictographs, petroglyphs, solstice observatory sites, sacred shrines, religious ground figures, or
    b. other formally designated and recognized sites which are of ritual, ceremonial, or sacred value to any prehistoric or historic ethnic group.

5.3.3 City of Carlsbad

City of Carlsbad regulations and policies pertaining to cultural resources can be found in the *City of Carlsbad General Plan* (updated 2015) Arts, History, Culture, and Education section and in the City of Carlsbad Municipal Code. The Municipal Code outlines the current process for designating landmarks and points of interest in Section 22.06.030. Municipal Code Section 22.06 states that a historic resource may be considered and approved by the City Council for inclusion in the City of Carlsbad historic resources inventory based one or more of the following:

- It exemplifies or reflects special elements of the city's cultural, social, economic, political, aesthetic, engineering or architectural history.
- It is identified with persons or events significant in local, state, or national history.
- It embodies distinctive characteristics of a style, type, period, or method of construction; is a valuable example of the use of indigenous materials or craftsmanship; or is representative of a notable work of an acclaimed builder, designer, or architect.
- It is an archaeological, paleontological, botanical, geological, topographical, ecological, or geographical site with potential for yielding information of scientific value.
- It is a geographically definable area with a concentration of buildings, structures, improvements, or objects that is linked historically through location, design, setting, materials, workmanship, feeling, and/or association in which the collective value of the improvements may be greater than the value of each individual improvement.

In 1990, the City of Carlsbad developed guidelines for the treatment of cultural resources, consistent with federal, state, and local laws. The guidelines establish standards of performance for resource investigations and present a systematic method of preserving identified resources. The City of Carlsbad has also established a Historic Preservation Commission to advise the City Council and the Planning Commission on all matters related to the identification, protection, retention, and preservation of historic areas and sites.

5.3.4 City of Escondido

City of Escondido Municipal Code Article 40, Sections 33-790 through 33-807, are related to the preservation of cultural resources. The articles are designed to:

- Protect, enhance, and perpetuate historical resources, sites, and districts that represent or reflect elements of the city's cultural, social, economic, political, and architectural history for the public health, safety, and welfare of the people of the city.
- Safeguard the city's historical heritage, as embodied and reflected in its historical resources, sites, and historical districts.
- Stabilize and improve property values.
- Foster civic pride in the character and accomplishments of the past.
- Strengthen the city's economy by protecting and enhancing the city's attractions to residents, tourists, and visitors and serving as a support and stimulus to business and industry.
- Enhance the visual character of the city by encouraging the preservation of unique and established architectural traditions.
- Promote the use of historical landmarks and districts for the education, pleasure, and welfare of the people of the city.
- Permit historical and archaeological sites to be identified, documented, and recorded by written and photographic means and allow an opportunity for preservation of historical and archaeological sites.

The City of Escondido has established a nine-member Historic Preservation Commission to assist and advise the mayor and council in all matters related to historic preservation in the city. The City of Escondido also maintains a local register of historic resources. Additionally, the Municipal Code outlines the procedures and criteria for designating or rescinding local landmark and historic district status, incentives for preserving historical resources, and permitting procedures. The *City of Escondido General Plan* (2012) does not refer to specific policies or procedures for cultural resources but does identify benefits related to the conservation of cultural resources.

5.3.5 City of San Marcos

The City of San Marcos addresses cultural resources in its general plan's Conservation and Open Space Element (2012). The City of San Marcos recognizes the impact that continued growth may have on cultural resources and has adopted policies and goals to ensure the preservation of cultural resources whenever possible. The plan identifies three policies specific to the city, in addition to CEQA, as follows:

> Goal COS-11: Continue to identify and evaluate cultural, historic, archeological, paleontological, and architectural resources for protection from demolition and inappropriate actions.
>
> > Policy COS-11.1: Identify and protect historic and cultural resources, including individual properties, districts, and sites (e.g., archaeological sites) in compliance with CEQA.
> >
> > Policy COS-11.2: Prohibit the demolition or removal of a historic structure without evaluation of the condition of the structure, the cost of rehabilitation, and the feasibility of

alternatives to preservation in place, including, but not limited to, relocation, reconstruction off-site, and/or photo-preservation.

Policy COS-11.3: Identify opportunities for adaptive reuse of historic sites and buildings to preserve and maintain their viability.

The City of San Marcos also has a Historic Preservation Commission, consisting of five members to advise the mayor and city council on all matters related to cultural resources, including designating historic landmarks, maintaining a historic resources inventory, giving advice on historic site preservation, and conducting programs to educate local residents regarding historic places, structures, or events. The City of San Marcos has identified a number of locally important historic resources but, as yet, has not established a local register of historical resources.

5.3.6 City of Vista

The City of Vista General Plan outlines goals in order to achieve the desired future development of the city (City of Vista 2012). The Resource Conservation & Sustainability Element includes goals and policies intended to preserve the cultural and historical resources that are important to the community of the City of Vista. The following goals and policies would be relevant to cultural resources in the Proposed Project area:

RCS Goal 11: Continue to preserve and protect places, buildings, and objects that embody the City's social, cultural, commercial, architectural, and agricultural history.

PCS Policy 11.3: Support preservation of historical resources, including providing for adaptive reuse and tax incentives where appropriate.

RCS Policy 12.2: In collaboration with NAHC and the San Luis Rey Band of Mission Indians, adopt procedures for protecting significant archeological features, and apply to projects requiring discretionary city approval.

RCS Policy 12.3: Ensure that the San Luis Rey Band of Mission Indians is notified of any proposed discretionary planning or grading applications affecting lands with potential archaeological resources.

PCS Policy 12.4: If significant Native American artifacts are discovered during pre-construction or construction phases of a discretionary project or during the implementation of a grading permit, the first priority shall be a) to avoid any further disturbance of those areas by re-designing the proposed development or project, and b) to have those areas placed into protected open space via an open space easement or similar protective measure. If avoidance is not feasible based on consultation with the Most Likely Descendant of such artifacts, appropriate mitigation shall be required. Any discovered Native American artifacts shall be returned to their Most Likely Descendant and repatriated at the earliest opportunity.

RCS Policy 12.5: If Native American human remains and/or associated grave goods are found during any of the activities identified in RCS Policy 12.4, the first priority shall be a) to avoid any further disturbance (i.e., grading, development) of these areas in which they are found, and b) to have the remains and/or associated grave goods preserved in place via an open space easement or similar protective land use measure. The second priority shall be

that the Most Likely Descendant of the remains and/or associated grave goods, as determined by the NAHC, must also have the opportunity to recommend other culturally appropriate treatment.

The City of Vista Municipal Code Chapter 15.12, Historic Preservation, is related to the preservation of historical and cultural resources (City of Vista 2009). The ordinance is designed to:

- Effect and accomplish the protection, enhancement and perpetuation of historical resources, landmarks, and districts that represent or reflect elements of the City's cultural, social, economic, political, and architectural history.
- Safeguard the City's historical heritage as embodied and reflected in its historical resources, landmarks, and historical districts.
- Stabilize and improve property values.
- Foster civic pride in the character and accomplishments of the past.
- Protect and enhance the City's attractions to residents, tourists, and visitors and serve as a support and stimulus to business and industry.
- Strengthen the economy of the City.
- Promote the use of historic districts and landmarks for the education, pleasure and welfare of the people of the City.

Section 15.12.040 Environmental Review: In connection with any environmental review process occurring under CEQA, the City of Vista will evaluate the historical significance of any feature of the built environment found to be more than 45 years old where a proposed project would result in its alteration or removal. This review and assessment shall occur whether or not the potential historic resource is officially designated as such at the local, state or federal level. If, such environmental review determines that the resource is of historic significance, the provisions of Section 15.12.090 must be satisfied before any project may proceed which has the potential to adversely affect such resource.

Chapter 6
Eligibility Recommendations

To evaluate power line resources within the TL 6975 Project Corridor that meet the age threshold for consideration as potential historical resources, ICF followed examples of similar studies prepared for SDG&E. The current study also applies frameworks and approaches from *Historic Evaluation of Electrical Transmission and Distribution Lines in the Cleveland National Forest (CNF) for San Diego Gas and Electric's (SDG&E) Master Special Use Permit (MSUP)*, prepared by ASM Affiliates, Inc. (2015). Like that study, the current study makes use of evaluation frameworks set forth in SCE's *Historic-Era Electrical Infrastructure Management Program* (SCE 2015), prepared by Wendy Tinsley Becker, Audry Williams, Thomas Jackson, and Adam Sriro.

The SCE report shows that the most important milestones in the development of electrical transmission technology involved systems located beyond San Diego County. It identified power lines within the SCE system that are eligible for listing in the NRHP and/or CRHR as the most important examples of transmission technology within the history of electrification in Southern California. The study found that Southern California distribution lines are an entirely commonplace property type that transmit electricity at low voltage and lack the potential to embody innovation within the context of transmission technology history. It concluded that distribution lines carried by wood poles do not have the potential to meet NRHP or CRHR significance criteria. SCE pioneered the development of high-voltage transmission lines with steel lattice towers in Southern California. The study identified periods of potential significance for lattice steel transmission lines as 1907–1930 for lines transmitting up to 66 kV, 1912–1941 for 67 to 230 kV lines, and 1965–1970 for 500 kV lines. Finally, the study found that substations constructed after 1949 contain equipment such as transformers, relays, and switch racks that have so frequently been altered or replaced within the last 50 years, that only buildings have potential to confer significance on post-1949 substations. However, the buildings of an overwhelming majority of post-1949 substations are astylistic or entirely utilitarian, and were so frequently subject to alteration or replacement that only those rare post-1949 substations containing buildings designed with an intended, clearly articulated historicist or modernist architectural vocabulary have potential to meet NRHP or CRHR significance criteria (Becker et al. 2015:67, 86–87, 97–98, 102–103).

ICF's evaluations of historic-era resources within the TL 6975 Project Corridor have been informed by the framework outlined in the 2015 SCE study, the history of San Diego County electrification produced in the 2015 ASM Affiliates' study, and the history of the TL 6975 corridor and vicinity that ICF developed for this study. Using this framework, ICF has evaluated TL 680C, TL 13811A, and the Escondido and San Marcos Substations for NRHP, CRHR, and Local Register eligibility. As noted above, as power line alignments the TL 6975 Project Corridor segment containing TL 13811/13825 and the segment from Harmony Grove Road to Escondido Substation are over 50 years old. However, all of the TL 13811/13825 poles and all of the poles and towers in the Harmony Grove Road to Escondido portion of the Project Corridor are well under 50 years old. These poles, towers, lines, and alignments have no potential for historical significance as electrical infrastructure. Therefore, they are not being formally evaluated below.

6.1 San Marcos Substation

San Marcos Substation is not recommended eligible for listing in the NRHP, the CRHR, or the County's Local Register, and it does not meet any of the County's RPO criteria. SDG&E constructed this substation circa 1969. A 1968 aerial photo indicates that no development had occurred at the site of the substation at that time. The substation is visible in a 1970 aerial photo of the site vicinity. Aerial photographs show that as late as 1980, only the southeastern half of the site had been developed with structures and electrical equipment (NETR 2018, County of San Diego 1970).

Extending the 1941–1968 period of significance for the theme of Community Development, World War II and Post-War Power Line Development by a year, San Marcos Substation does not appear to have significance within the context of this theme. Like numerous post-World War II substations across San Diego County, San Marcos Substation was constructed to accommodate growth; it does not represent seed infrastructure responsible for the formation or early development of San Marcos. The substation is too commonplace an example of post-World War II electrical infrastructure to represent the theme of Community Development history in an important way. Consequently, San Marcos Substation is not recommended eligible under Criterion A of the NRHP or Criterion 1 of the CRHR or the Local Register.

Non-residential properties with significance for association with a historically important individual are typically the place where such an individual performed the work for which they are primarily known. Research yielded no evidence that a historically important individual had such an association with the subject facility. San Marcos Substation is not, therefore, recommended eligible under NRHP Criterion B or Criterion 2 of the CRHR or the Local Register.

San Marcos Substation does not have significance as the work of a master architect, builder, or engineer, as a property with a building or buildings possessing high artistic value, or as an important example of a type, period, or method of construction. Entirely utilitarian in terms of design and construction, San Marcos Substation's buildings are not important examples of an architectural style or local vernacular construction. The facility contains an abundance of electrical equipment subject to alteration and replacement over the past 50 years and common to modest-sized substations of the latter twentieth century. For these reasons, San Marcos Substation is not recommended eligible under NRHP Criterion C or Criterion 3 of the CRHR or the Local Register.

San Marcos Substation does not meet any of the definitions set forth by the County's RPO. It is not formally determined eligible or listed in the NRHP, has not received an H designator, and is not a one-of-a-kind, locally unique, or regionally unique cultural resource containing a significant volume and range of data or materials. San Marcos Substation is not the location of past or current sacred religious or ceremonial observances.

6.2 TL 680C

TL 680C is not recommended eligible for listing in the NRHP, the CRHR, or the County's Local Register, and it does not meet any of the County's RPO criteria. The few poles 50 years old or older that currently carry TL 680C were historically part of a local distribution line. Within the Project Corridor, two of TL 680C's poles are 50 years old or older. SDG&E pole cards indicate that those two poles were installed in 1964 and 1967. Two others were installed between 1969 and 1973. Pole

cards and field inspection indicate that the other 42 poles were all installed within the last 44 years, and most of these date to the 1980s and 1990s (SDG&E 2018). Consequently, in terms of design, workmanship, and materials, TL 680C has poor historical integrity.

As a line that functioned as a local distribution line during the historic period, TL 680C has no potential for significance within the context of Community Development, World War II and Post-War Power Line Development (1941–1968). It is not an example of a large-scale power line that had a significant impact in the electrification of San Diego County during that theme's 1941–1968 period of potential significance. TL 680C and the poles that carry it are not, therefore, recommended eligible under Criterion A of the NRHP or Criterion 1 of the CRHR or the Local Register.

Power lines are not the type of property typically found to have significance for a direct association with an individual important to history. Properties found to have significance for such association are typically the residences of individuals important to the founding or early history of a community, or properties where an individual performed the work that made them historically significant. A local distribution line during the historic period, TL 680C has no potential for significance owing to direct association with the work for which a historically important individual is primarily known. Hence TL 680C is not recommended eligible under Criterion B of the NRHP or Criterion 2 of the CRHR or the County's Local Register.

Historically, TL 680C was neither a steel lattice-tower transmission line constructed prior to 1942, nor a 500 kV transmission line constructed during the years 1965–1970. It has no potential for significance in the history of electrical infrastructure engineering in Southern California as a wood- and steel-pole line that functioned as a distribution line during the 1960s, the decade during which its two historic-period poles were installed. Therefore, TL 680C is not recommended eligible under Criterion C of the NRHP or Criterion 3 of the CRHR or the Local Register.

TL 680C does not meet any of the definitions set forth by the County's RPO. It is not formally determined eligible or listed in the NRHP, has not received an H designator, and is not a one-of-a-kind, locally unique, or regionally unique cultural resource containing a significant volume and range of data or materials. TL 680C is not the location of past or current sacred religious or ceremonial observances.

6.3 TL 13811A

TL 13811A is not recommended eligible for listing in the NRHP, the CRHR, or the County's Local Register. Information from SDG&E pole cards and USGS topographic maps indicates that SDG&E constructed the steel lattice towers that currently carry the de-energized TL 13811A from Meadowlark Junction to Escondido Substation in 1959 (SDG&E 2018, USGS 1949a). From Harmony Grove Road north to Escondido Substation, the 1959 steel-lattice towers have since been removed, and the poles and towers currently present in that portion of the Project Corridor are all well under 50 years old.

SDG&E constructed TL 13811A during the period of significance for the historic theme of Community Development, World War II and Post-War Power Line Development (1941–1968). TL 13811A appears to have been one of numerous transmission lines constructed in northern San Diego County during the 1950s, as SDG&E developed the Encina Power Plant and expanded interconnections in the region. Research efforts yielded no evidence that the construction of TL

13811A had an impact within the electrical service development during the 1941–1948 period that distinguishes it from other transmission lines constructed during that period. Therefore, TL 113811A is not recommended eligible under Criterion A of the NRHP or Criterion 1 of the CRHR or the Local Register.

Power lines are not the type of property typically found to have significance for a direct association with an individual important to history. Properties found to have significance for such association are typically the residences of individuals important to the founding or early history of a community, or properties where an individual performed the work that made them historically significant. Research yielded no evidence that TL 13811A is an exception in this regard. TL 113811A is not, therefore, recommended eligible under NRHP Criterion B or Criterion 2 of the CRHR or the Local Register.

TL 113811A does not have historical significance within the context of electrical infrastructure engineering. Although the original voltage transmitted by TL 113811A is not known, SDG&E constructed it in 1959, well after the 1912–1941 period of significance for 67 to 230 kV lines carried by steel lattice towers. TL 113811A has certainly never been a 500 kV line and was constructed prior to the 1965–1970 period of significance for 500 kV transmission lines. For these reasons, TL 113811A is not recommended eligible under NRHP Criterion C or Criterion 3 of the CRHR or the Local Register.

TL 13811A does not meet any of the definitions set forth by the County's RPO. It is not formally determined eligible or listed in the NRHP, has not received an H designator, and is not a one-of-a-kind, locally unique, or regionally unique cultural resource containing a significant volume and range of data or materials. TL 13811A is not the location of past or current sacred religious or ceremonial observances.

6.4 Escondido Substation

Escondido Substation is not recommended eligible for listing in the NRHP, the CRHR, or the County's Local Register, and it does not meet any of the County's RPO criteria. SDG&E began operations in Escondido in 1917. Research indicates that SDG&E operated an "Escondido Substation" at a different site than the present-day Escondido Substation site prior World War II. The present-day substation site appears to have been established circa 1950. No substation elements are visible in a 1947 aerial photograph of the site. A subsequent aerial photograph shows that SDG&E had constructed substation electrical equipment and structures at the site by the end of 1953. Historic aerial photos indicate that the substation had grown modestly by 1967. SDG&E improved and expanded the substation substantially thereafter, likely within a few years after 1967 given the growth that occurred in the area at that time (Fisher 1942; NETR 2018).

Escondido Substation does not appear significant as an important representation of the theme of Community Development, World War II and Post-War Power Line Development. SDG&E substantially expanded Escondido Substation after 1967 to accommodate northern San Diego County growth. Although the facility has association with growth, it does not represent seed infrastructure responsible for the formation or early development of Escondido. Although the facility is a large substation, it is too commonplace an example of electrical infrastructure to represent the theme of post-World War II Community Development history in an important way.

Consequently, Escondido Substation is not recommended eligible under Criterion A of the NRHP or Criterion 1 of the CRHR or the Local Register.

Non-residential properties with significance for association with a historically important individual are typically the place where such an individual performed the work for which they are primarily known. Research yielded no evidence that a historically important individual had such an association with the subject substation facility. Escondido Substation is not, therefore, recommended eligible under NRHP Criterion B or Criterion 2 of the CRHR or the Local Register.

Escondido Substation does not have significance as the work of a master architect, builder, or engineer, as a property with a building or buildings possessing high artistic value, or as an important example of a type, period, or method of construction. The substation's five rectangular-plan buildings and its other enclosed structures are entirely utilitarian in terms of design and construction. None are important examples of an architectural style or local vernacular construction. The facility contains an abundance of electrical equipment subject to alteration and replacement over the past 50 years and common to substantial substations of the latter twentieth century. For these reasons, Escondido Substation is not recommended eligible under NRHP Criterion C or Criterion 3 of the CRHR or the Local Register.

Escondido Substation does not meet any of the definitions set forth by the County's RPO. It is not formally determined eligible or listed in the NRHP, has not received an H designator, and is not a one-of-a-kind, locally unique, or regionally unique cultural resource containing a significant volume and range of data or materials. Escondido is not the location of past or current sacred religious or ceremonial observances.

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Chapter 7
Preparers' Qualifications

Timothy (Tim) Yates, PhD, is a historian/architectural historian with over 10 years of experience in cultural resources management. He develops historical contexts and conducts field inventories for projects requiring compliance with Section 106 of the National Historic Preservation Act (NHPA) and the California Environmental Quality Act (CEQA). He evaluates historic buildings and other built-environment resources for National Register, California Register, and local register eligibility. Tim has authored and co-authored numerous cultural resource reports involving historical resources, including inventory and evaluation reports, findings of effect, and Historic American Building Survey (HABS), Historic American Engineering Record (HAER), and Historic American Landscape Survey (HALS) reports. Tim has worked on an array of built-environment resource types, including a wide variety of residential, commercial, and industrial properties, as well as public school complexes, roadways and bridges, water systems, electrical infrastructure, rural landscapes and enclaves, a historic mural, a California mission, and National Parks facilities. Tim also contributes to and has led preparation of the cultural resources portions of Environmental Impact Reports (EIR).

Karolina Chmiel, MA, Karolina Chmiel is an archaeologist and geographic information systems (GIS) specialist with ten years of experience in a variety of roles related to archaeology and anthropology, including crew chief for survey and excavation projects, construction monitor, teaching assistant, collections assistant, and laboratory assistant. She is an experienced field director and has written and co-written numerous cultural resources technical documents required by CEQA and Section 106 of the NHPA. These include specialized documents for agencies such as Caltrans and the County of San Diego. Karolina also has ten years of experience in GIS creating, organizing, and analyzing GIS data and developing cartographic layouts.

Nara Cox, BA, has worked on approximately 90 cultural resource management projects throughout the state of California and is experienced in desert, mountain, and coastal environments. She has served in field and lab technician capacities, as crew chief, co-authored technical reports, and assisted in the production of EIRs. Projects include solar and wind farms, public safety projects, commercial and residential developments, and utility projects. Services performed for these projects include pedestrian surveys, test excavations, data recovery programs, construction monitoring, and research projects. She has been approved to work on Marine Corps Base Camp Pendleton, Fort Irwin, and Edwards Air Force Base. Nara is on the City of San Diego approved archaeologists list, and has been approved to work as a Crew Chief specializing in Prehistorics in the Great Basin, Nevada.

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Chapter 8
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———. 1968b. San Marcos, California. 7.5' Series (1:24,000) Topographic Quadrangle Map. Field Checked 1968, Photorevised 1983.

———. 1968c. Escondido, California. 7.5' Series (1:24,000) Topographic Quadrangle Map. Field Checked 1968.

Van Wormer, Stephen, and Christy Dolan. 1999. National Register of Historic Places Registration Form for the Boulder Dam – Los Angeles 287.5 kV Transmission Line. August 2.

Williams, James C. 1997. *Energy and the Making of Modern California*. University of Akron Press, Akron, Ohio.

Appendix A
DPR Forms

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

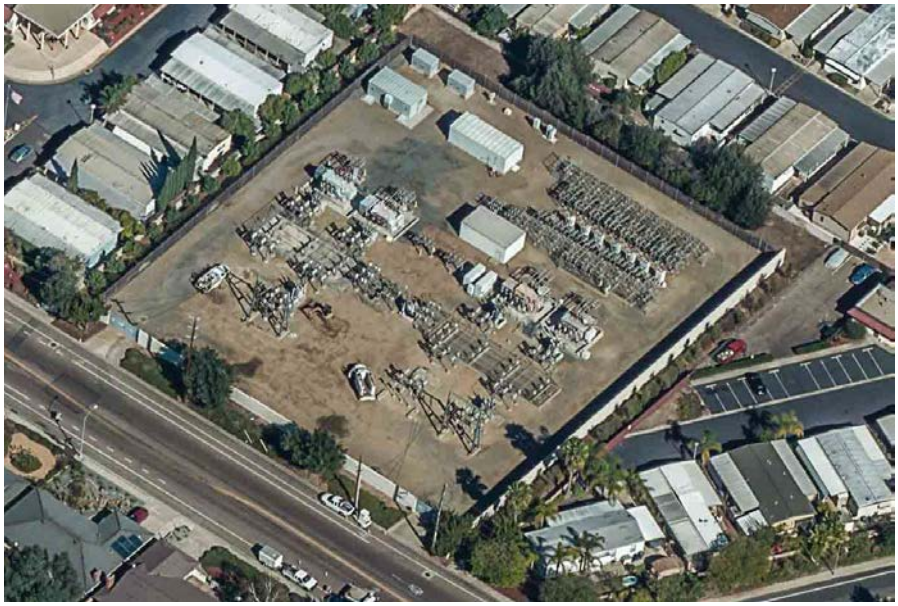
Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 6Z
Other Listings _____
Review Code _____ **Reviewer** _____ **Date** _____

 ***Resource Name or #** (Assigned by recorder): San Marcos Substation

P1. Other Identifier:
***P2. Location:** ☐ **Not for Publication** ■ **Unrestricted** ***a. County:** San Diego
and (P2b and P2c or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quad:** San Marcos, CA **Date:** 1968 (PR 1983) **T** 12S; **R** 3W **Sec** Not Sectioned; Los Vallecitos De San Marcos Land Grant, San Bernardino **B.M.**
c. Address N/A City San Marcos Zip 92078
d. UTM: (give more than one for large and/or linear resources):
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate):
***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries):

San Marcos Substation occupies an approximately 1.5-acre property on the northeast side of La Sombra Drive. The facility is surrounded by a concrete block walls or fencing. Two power lines access the station, one from the southeast and one from the southwest. The lines connect to steel portals (or racks). The facility contains typical elements of a substation, including transformers, circuit breakers, switches, busbars and other equipment subject to alteration and replacement over the last 50 years. Much, if not all, of this electrical equipment is likely less than 50 years old. The substation has three modest-sized rectangular-plan utilitarian buildings and several smaller enclosed utilitarian structures. The buildings have no windows, save for vision lights at some entry doors, and they lack any sort of architectural expression. They are entirely commonplace examples of latter-twentieth-century substation construction.

***P3b. Resource Attributes:** (List attributes and codes) HP39. Other (Substation)
***P4. Resources Present:** ■ Building ■ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)



P5b. Description of Photo: (View, date, accession#): Bird's eye aerial photograph of San Marcos Substation

***P6. Date Constructed/Age and Sources:**
■ Historic ☐ Prehistoric ☐ Both
Circa 1969 (see page 2 continuation sheet)

***P7. Owner and Address:**
San Diego Gas and Electric Company
8315 Century Park Court
San Diego, CA 92123

***P8. Recorded by:** (Name, affiliation, address)
T. Yates and N. Cox, ICF
525 B Street, Suite 1700
San Diego, California 92101

***P9. Date Recorded:** June 8, 2018

***P10. Survey Type:** (Describe) Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") ICF. 2018. Historical Resource Inventory and Evaluation Report for TL 6975: Escondido to San Marcos Project, San Diego County, California. Prepared for SDG&E.

***Attachments:** NONE ■ Location Map ☐ Sketch Map ■ Continuation Sheet ■ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other (list) _____

B1. Historic Name: San Marcos Substation
B2. Common Name: San Marcos Substation
B3. Original Use: Utility company electrical substation B4. Present Use: Utility company electrical substation
***B5. Architectural Style:** N/A
***B6. Construction History:** (Construction date, alteration, and date of alterations): Historic aerials indicate that the substation was constructed in late 1968, 1969, or early 1970.
***B7. Moved?** ■ **No** ☐ **Yes** ☐ **Unknown** **Date:** _____ **Original Location:** _____
***B8. Related Features:** Power line, TL 680C
B9. Architect: Unknown
b. Builder: Unknown
***B10. Significance: Theme:** N/A **Area:** N/A
Period of Significance: N/A **Property Type:** Utility company electrical substation **Applicable Criteria:** N/A
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

San Marcos Substation is not recommended eligible for listing in the NRHP, the CRHR, or the San Diego County Register of Historical Resources (Local Register), and it does not meet any of the County's Resource Protection Ordinance (RPO) criteria. SDG&E constructed this substation circa 1969. A 1968 aerial photo indicates that no development had occurred at the site of the substation at that time. The substation is visible in a 1970 aerial photo of the site vicinity. Aerial photographs show that as late as 1980, only the southeastern half of the site had been developed with structures and electrical equipment (NETR 2018; San Diego County 1970).

This evaluation extends by an additional year the 1941-1968 period of significance established by SDG&E for the theme of Community Development, World War II and Post-War Power Line Development in San Diego County. San Marcos Substation does not appear to have significance within the context of this theme. Like numerous post-World War II substations across San Diego County, San Marcos Substation was constructed to accommodate growth; it does not represent seed infrastructure responsible for the formation or early development of San Marcos. The substation is too commonplace an example of post-World War II electrical infrastructure to represent the theme of Community Development history in an important way. Consequently, San Marcos Substation is not recommended eligible under Criterion A of the NRHP or Criterion 1 of the CRHR or the Local Register (see continuation sheet).

B11. Additional Resource Attributes: (List attributes and codes)

***B12. References:** County of San Diego County. 1970. Aerial Photograph. County of San Diego Survey Records—MS 0350: Q62 346-1707. County Cartography Department; National Environmental Title Research, LLC (NETR). 2018. Historic Aerial Photographs of San Marcos and Escondido, 1947, 1953, 1964, 1967, 1980, 1989. Available: <www.historicaerials.com>. Accessed June 23, 2018.

B13. Remarks:

***B14. Evaluator**: Timothy Yates, Ph.D.

***Date of Evaluation:** June 26, 2018

(This space reserved for official comments.)

(Sketch Map with north arrow required.)

State of California - The Resource Agency
DEPARTMENT OF PARKS AND RECREATION

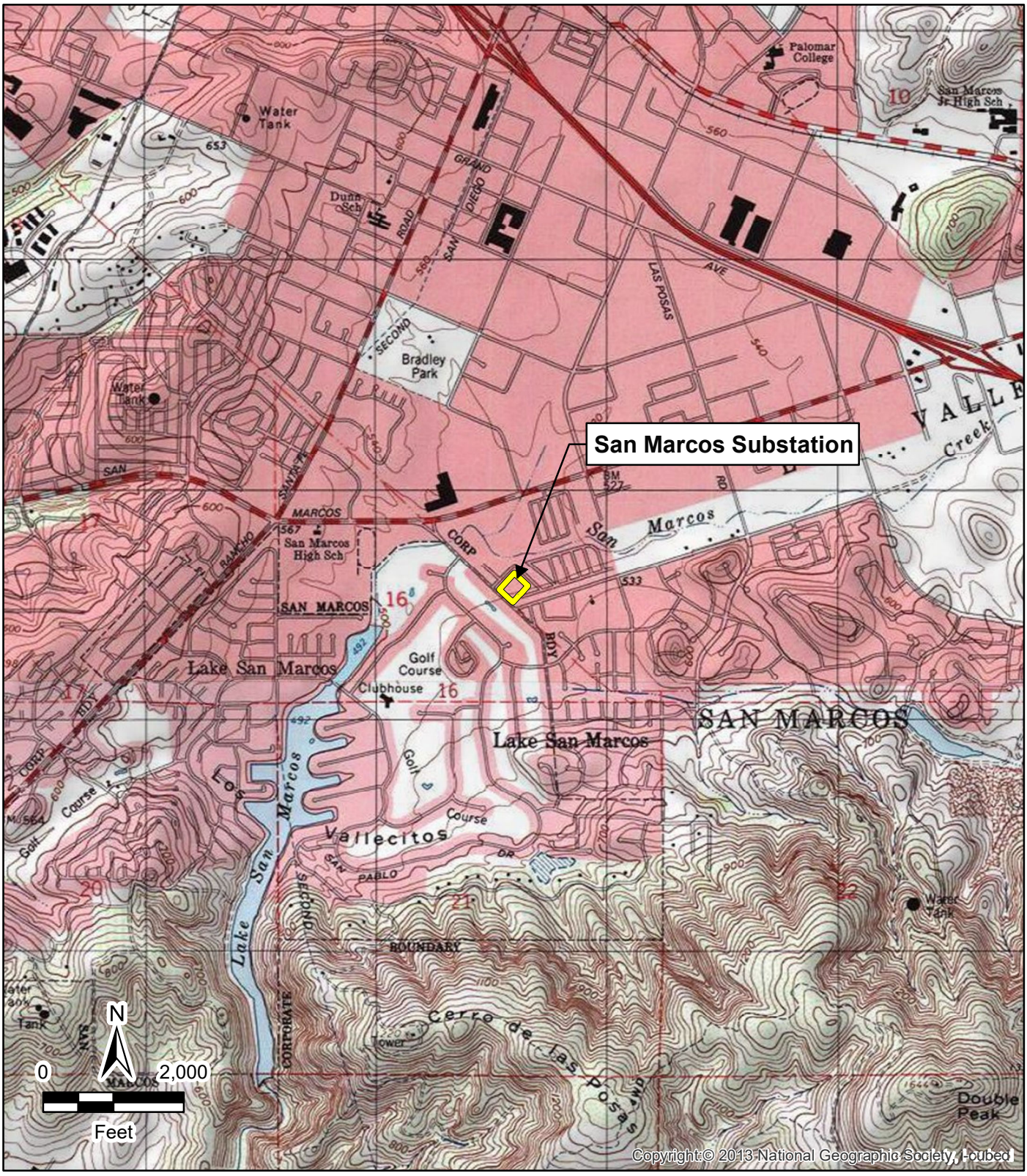
LOCATION MAP

Primary #: _____

Trinomial: _____

Resource Name or #: San Marcos Substation

Map Name: San Marcos, CA **Scale:** 1:24,000 **Date of Map:** 1997



Required information is bold

*B10. Significance (continued):

Non-residential properties with significance for association with a historically important individual are typically the place where such an individual performed the work for which they are primarily known. Research yielded no evidence that a historically important individual had such an association with the subject facility. San Marcos Substation is not, therefore, recommended eligible under NRHP Criterion B or Criterion 2 of the CRHR or the Local Register.

San Marcos Substation does not have significance as the work of a master architect, builder, or engineer, as a property with a building or buildings possessing high artistic value, or as an important example of a type, period, or method of construction. Entirely utilitarian in terms of design and construction, San Marcos Substation's buildings are not important examples of an architectural style or local vernacular construction. The facility contains an abundance of electrical equipment subject to alteration and replacement over the past 50 years and common to modest-sized substations of the latter twentieth century. For these reasons, San Marcos Substation is not recommended eligible under NRHP Criterion C or Criterion 3 of the CRHR or the Local Register.

San Marcos Substation does not meet any of the definitions set forth by the County's RPO. It is not formally determined eligible or listed in the NRHP, has not received an H designator, and is not a one-of-a-kind, locally unique, or regionally unique cultural resource containing a significant volume and range of data or materials. San Marcos Substation is not the location of past or current sacred religious or ceremonial observances.

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 6Z
Other Listings _____
Review Code _____ **Reviewer** _____ **Date** _____

 ***Resource Name or #** (Assigned by recorder): TL 680C

P1. Other Identifier:
***P2. Location:** ☐ **Not for Publication** ■ **Unrestricted** ***a. County:** San Diego
and (P2b and P2c or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quads:** San Marcos CA **Date:** 1968 (PR 1983) **T** 12S; **R** 3W **Sections** 17 and 18, and Los Vallecitos De San Marcos Land Grant, San Bernardino **B.M.**
c. Address N/A City San Marcos Zip 92078, 92069, 92083
d. UTM: (give more than one for large and/or linear resources): See Linear Feature Form

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate):
***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries):

Originally a distribution line and currently classified as a power line, TL 680C occupies a 2.57-mile segment of the Project Corridor that has been a power line or distribution line alignment for over 50 years. However, most of the poles carrying TL 680C have been replaced during the last 49 years, and a majority appear to have been replaced in the 1980s and 1990s. TL 680C runs northwest along La Sombra Drive 0.31 mile from San Marcos Substation, and west along W. San Marcos Boulevard and through an unnamed drainage south of W. San Marcos Boulevard for 2.08 miles. TL 680C crosses the corporate boundary between San Marcos and Carlsbad, continues along W. San Marcos Boulevard for a distance of 0.18 miles, and terminates at Lionshead Avenue. Forming the northwestern portion of the Project Corridor, most of TL 680C is aligned east-west. Poles carrying TL680C also carry (C)855 circuits (see continuation sheet).

***P3b. Resource Attributes:** (List attributes and codes) HP39. Other (Power Line)
***P4. Resources Present:** ☐ Building ■ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5b. Description of Photo: (View, date, accession#) TL 680C from W. San Marcos Boulevard, looking west toward White Sands Drive

***P6. Date Constructed/Age and Sources:**
■ Historic ☐ Prehistoric ☐ Both
1964 to present (SDG&E Pole Cards 2018).

***P7. Owner and Address:**
San Diego Gas and Electric Company
8315 Century Park Court
San Diego, CA 92123

***P8. Recorded by:** (Name, affiliation, address)
T. Yates and N. Cox, ICF
525 B Street, Suite 1700
San Diego, California 92101

***P9. Date Recorded:** June 8, 2018

***P10. Survey Type:** (Describe) Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") ICF. 2018. Historical Resource Inventory and Evaluation Report for TL 6975: Escondido to San Marcos Project, San Diego County, California. Prepared for SDG&E.

***Attachments:** ■ Location Map ☐ Sketch Map ■Continuation Sheet ■Building, Structure, and Object Record ☐ Archaeological Record
☐ District Record ■ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record
☐ Other (list) _____

B1. Historic Name: Unknown
B2. Common Name:
B3. Original Use: Distribution Line B4. Present Use: Power Line
***B5. Architectural Style:** N/A
***B6. Construction History:** (Construction date, alteration, and date of alterations): The oldest TL 680C pole within the Project Corridor dates to 1964. Most of the TL 680C poles within the Project Corridor were constructed within the last 45 years.
***B7. Moved?** ■ **No** ☐ **Yes** ☐ **Unknown** **Date:** _____ **Original Location:** _____
***B8. Related Features:**
B9. Architect: N/A
b. Builder: Unknown
***B10. Significance: Theme:** N/A **Area:** N/A
Period of Significance: N/A **Property Type:** Power Line **Applicable Criteria:** N/A
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

TL 680C is not recommended eligible for listing in the NRHP, the CRHR, or the County's Local Register, and it does not meet any of the County's Resource Protection Ordinance (RPO) criteria. The few poles 50 years old or older that currently carry TL 680C were historically part of a local distribution line. Within the Project Corridor, two of TL 680C's poles are 50 years old or older. SDG&E pole cards indicate that those two poles were installed in 1964 and 1967. Two others were installed between 1969 and 1973. Pole cards and field inspection indicate that the other 42 poles were all installed within the last 44 years, and most of these date to the 1980s and 1990s (SDG&E 2018). Consequently, in terms of design, workmanship, and materials, TL 680C has poor historical integrity.

As a line that functioned as a local distribution line during the historic period, TL 680C has no potential for significance within the context of Community Development, World War II and Post-War Power Line Development (1941–1968). It is not an example of a large-scale power line that had a significant impact in the electrification of San Diego County during that theme's 1941–1968 period of potential significance. TL 680C and the poles that carry it are not, therefore, recommended eligible under Criterion A of the NRHP or Criterion 1 of the CRHR or the Local Register (see continuation sheet).

B11. Additional Resource Attributes: (List attributes and codes)

***B12. References:** SDG&E. 2018. Pole Cards for Poles and Towers in the TL 6975 Project Corridor. On file at SDG&E, San Diego, California

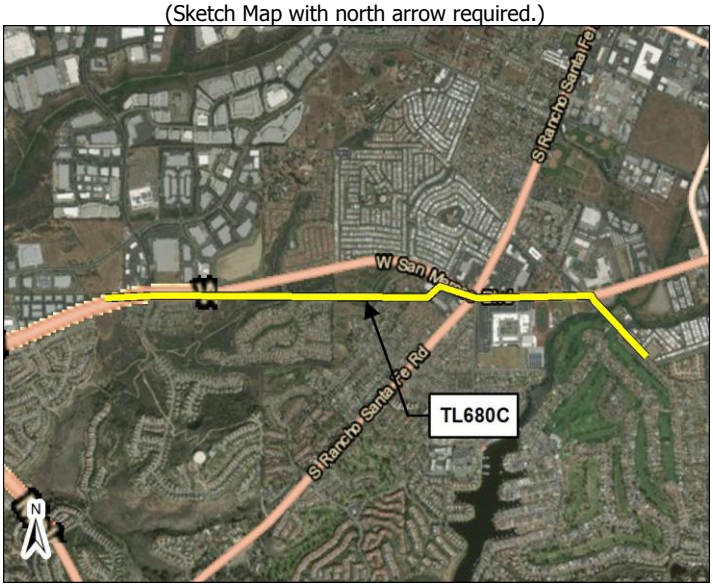
B13. Remarks:

***B14. Evaluator**: Timothy Yates, Ph.D.

***Date of Evaluation:** June 27, 2018

(This space reserved for official comments.

(Sketch Map with north arrow required.)



State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LINEAR FEATURE RECORD

Primary #_____
HRI # _____
Trinomial

Page 3 **of** 6 ***Resource Name or #** (Assigned by recorder): TL 680C
Recorded by ICF *Date June 8, 2018

L1. Historic and/or Common Name: TL 680C
L2a. Portion Described: ☐ **Entire Resource** ☒ **Segment** ☐ **Point Observation** ☐ **Designation:**
b. Location of point or segment: (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map) UTMs: TMs, 11S 478448 mE / 3665889 mN (westernmost pole); 11S 481552 mE / 3665553 mN (easternmost pole).
L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

See Primary Form and Continuation Sheet, *P3a. Description

L4. Dimensions: (In feet for historic features and meters for prehistoric features)
a. Top Width: N/A
b. Bottom Width: N/A
c. Height or Depth: 25-80 feet
d. Length of Segment: 2.57 miles

L5. Associated Resources: San Marcos Substation

L4e. Sketch of Cross-Section:

See Location Map and Photographs on Primary Form and Continuation Sheets

L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.) TL 680C generally extends east-west except for a northwest-southeast aligned segment along La Sombra Drive near San Marcos Substation, where it passes through a suburban neighborhood. From La Sombra Drive to the west, it runs along the more urbanized streetscape of W. San Marcos Boulevard to S. Rancho Santa Fe Road. There it passes through another suburban neighborhood and open space. To the west, it again runs along W. San Marcos Boulevard in the vicinity of White Sands Drive.

L7. Integrity Considerations: TL 680C has poor historical integrity. Two TL 680C poles within the Project Corridor are 50 years old or older. Most of the others were replaced in the 1980s and 1990s. Some date to the 1970s.

L8b. Description of Photo, Map, or Drawing (View, scale, etc.)
TL 680C from W. San Marcos Boulevard at San Marcos High School entrance, looking east

L9. Remarks:

L10. Form Prepared by: (Name, affiliation, and address)
T. Yates, ICF
525 B Street, Suite 1700
San Diego, California 92101

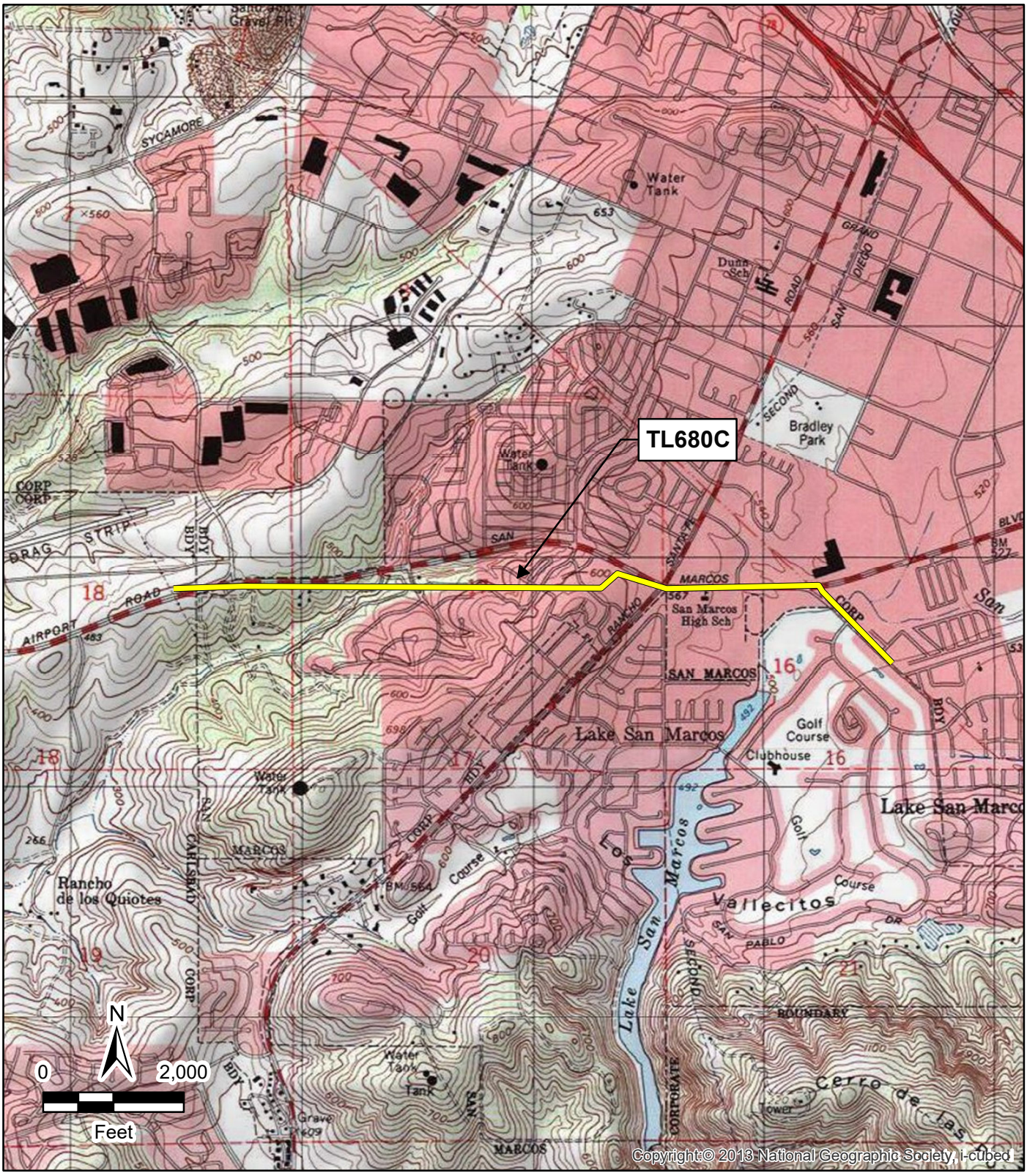
L11. Date: June 27, 2018

State of California - The Resource Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #: _____
Trinomial: _____

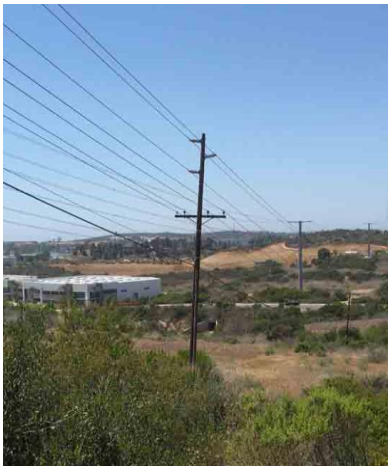
Resource Name or #: TL680C

Map Name: San Marcos, CA **Scale:** 1:24,000 **Date of Map:** 1997



Required information is bold

Photographs (continued): Representative TL680C Pole Sub Types


Pole Loc. 54.1: installed 1964, wood, looking northwest


Pole Loc. 6: installed 1967, wood, looking southeast


Pole Loc. 30: recent steel pole, looking south


Pole Loc. 17: wood stub under 50 years old, looking southeast


Pole Loc. 28: installed 1982, wood, looking east


Pole Loc. 25: recent steel pole, looking east


Pole Loc. 22: 1991, wood; Pole Loc. 24: recent steel stub, looking west


Pole Loc. 21: 1991, wood, looking southeast


Pole Loc. 5: wood stub under 50 years old, looking east

*P3A. Description (continued):

The Project Corridor contains 46 existing structures associated with TL 680C. Reaching heights of up to 80 feet, 36 of these are wood and steel poles that carry the line. The remaining 10 structures are 25-foot or shorter wood or steel stub poles that support the line's poles but do not themselves carry power lines. The typical span between each pole structure is approximately 200 feet, with one span reaching 640 feet. Each pole structure is set 5 to 10 feet into the ground with guy-wire anchors and stub poles placed as necessary for structural integrity of the line. Each pole structure consists of a central pole which may be of wood or steel construction, sets of cross arms, insulators, and other electrical equipment as needed.

*B10. Significance (continued):

Power lines are not the type of property typically found to have significance for a direct association with an individual important to history. Properties found to have significance for such association are typically the residences of individuals important to the founding or early history of a community, or properties where an individual performed the work that made them historically significant. A local distribution line during the historic period, TL 680C has no potential for significance owing to direct association with the work for which a historically important individual is primarily known. Hence TL 680C is not recommended eligible under Criterion B of the NRHP or Criterion 2 of the CRHR or the County's Local Register.

Historically, TL 680C was neither a steel lattice-tower transmission line constructed prior to 1942, nor a 500 kV transmission line constructed during the years 1965–1970. It has no potential for significance in the history of electrical infrastructure engineering in Southern California as a wood- and steel-pole line that functioned as a distribution line during the 1960s, the decade during which its two historic-period poles were installed. Therefore, TL 680C is not recommended eligible under Criterion C of the NRHP or Criterion 3 of the CRHR or the Local Register.

TL 680C does not meet any of the definitions set forth by the County's RPO. It is not formally determined eligible or listed in the NRHP, has not received an H designator, and is not a one-of-a-kind, locally unique, or regionally unique cultural resource containing a significant volume and range of data or materials. TL 680C is not the location of past or current sacred religious or ceremonial observances.

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 6Z
Other Listings _____
Review Code _____ **Reviewer** _____ **Date** _____

 ***Resource Name or #** (Assigned by recorder): TL 13811A

P1. Other Identifier: Meadowlark Junction to Escondido Substation
***P2. Location:** ☐ **Not for Publication** ■ **Unrestricted** ***a. County:** San Diego
and (P2b and P2c or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quads:** Rancho Santa Fe, CA **Date:** 1968 (PR 1983) **T** 12S; **R** 3W **Sections** 25, 26, 27, 33, and 34, and **T** 12S; **R** 2W **Sections** 19 and 30; and Escondido, CA **Date:** 1968 (PR 1975) **T** 12S; **R** 2W **Sections** 19 and 20, San Bernardino **B.M.**
c. Address None City San Marcos, Escondido, Unincorporated San Diego County Zip 92078, 92029
d. UTM: (give more than one for large and/or linear resources): See Linear Feature Form

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate):
***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries):

Constructed in 1959 as a transmission line, TL 13811A is aligned at a distance of 7.4 miles within the Project Corridor from Meadowlark Junction to Harmony Grove Road in Escondido. It is currently de-energized. Forming the southernmost portion of the Project Corridor, most of TL 13811A is aligned east-west. In the vicinity of Harmony Grove an approximately 0.9-mile segment of TL 13811A is aligned northeast-southwest and an approximately 0.6-mile segment is aligned north-south. This portion of the Project Corridor contains two power lines with steel lattice towers. Aligned on the north side of this Project Corridor segment, TL 23011/23051 was constructed in 1973 and has not reached the 50-year age threshold for historical resource consideration. TL 13811A is carried by this Project Corridor segment's southern tower alignment (SDG&E 2018) (see continuation sheet).

***P3b. Resource Attributes:** (List attributes and codes) HP39. Other (Transmission Line)
***P4. Resources Present:** ☐ Building ■ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5b. Description of Photo: (View, date, accession#) TL 13811A Tower Location 86, looking southwest form near intersection of Questhaven Road and Old Glen Street in San Marcos

***P6. Date Constructed/Age and Sources:**
■ Historic ☐ Prehistoric ☐ Both
1959 (SDG&E Pole Cards 2018).

***P7. Owner and Address:**
San Diego Gas and Electric Company
8315 Century Park Court
San Diego, CA 92123

***P8. Recorded by:** (Name, affiliation, address)
T. Yates and N. Cox, ICF
525 B Street, Suite 1700
San Diego, California 92101

***P9. Date Recorded:** June 8, 2018

***P10. Survey Type:** (Describe) Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") ICF. 2018. Historical Resource Inventory and Evaluation Report for TL 6975: Escondido to San Marcos Project, San Diego County, California. Prepared for SDG&E.

***Attachments:** ■ Location Map ☐ Sketch Map ■Continuation Sheet ■Building, Structure, and Object Record ☐ Archaeological Record
☐ District Record ■ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record
☐ Other (list) _____

B1. Historic Name: Meadowlark Junction to Escondido Substation
B2. Common Name:
B3. Original Use: Transmission Line B4. Present Use: Power Line
***B5. Architectural Style:** N/A
***B6. Construction History:** (Construction date, alteration, and date of alterations): Constructed in 1959.
***B7. Moved?** ■ **No** ☐ **Yes** ☐ **Unknown** **Date:** _____ **Original Location:** _____
***B8. Related Features:**
B9. Architect: N/A
b. Builder: Unknown
***B10. Significance: Theme:** N/A **Area:** N/A
Period of Significance: N/A **Property Type:** Power Liine **Applicable Criteria:** N/A
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

TL 13811A is not recommended eligible for listing in the NRHP, the CRHR, or the San Diego County Register of Historical Resources (Local Register), and it does not meet the County's Resource Protection Ordinance (RPO criteria). Information from SDG&E pole cards and USGS topographic maps indicates that SDG&E constructed steel lattice towers that currently carry the de-energized TL 13811A from Meadowlark Junction to Escondido Substation in 1959 (SDG&E 2018; USGS 1949). From Harmony Grove Road north to Escondido Substation, the 1959 steel-lattice towers have since been removed, and the poles and towers currently present in that portion of the Project Corridor are all well under 50 years old.

SDG&E constructed TL 13811A during the period of significance for the historic theme of Community Development, World War II and Post-War Power Line Development (1941-1968). TL 13811A appears to have been one of numerous transmission lines constructed in northern San Diego County during the 1950s, as SDG&E developed the Encina Power Plant and expanded interconnections in the region. Research efforts yielded no evidence that the construction of TL 13811A had an impact within the electrical service development during the 1941-1948 period that distinguishes it from other transmission lines constructed during that period. Therefore, TL 113811A is not recommended eligible under Criterion A of the NRHP or Criterion 1 of the CRHR or the Local Register (see continuation sheet).

B11. Additional Resource Attributes: (List attributes and codes)

***B12. References:** SDG&E. 2018. Pole Cards for Poles and Towers in the TL 6975 Project Corridor. On file at SDG&E, San Diego, California; USGS. 1949. Rancho Santa Fe, California. 7.5' Series (1:24,000) Field Checked 1949.

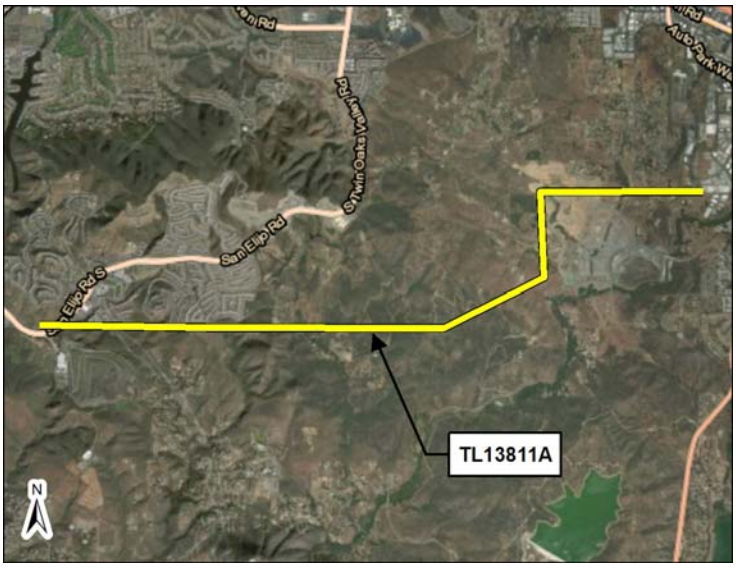
B13. Remarks:

***B14. Evaluator**: Timothy Yates, Ph.D.

***Date of Evaluation:** June 26, 2018

(This space reserved for official comments.)

(Sketch Map with north arrow required.)



State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
LINEAR FEATURE RECORD

Primary #_____
HRI # _____
Trinomial

Page 3 **of** 6 ***Resource Name or #** (Assigned by recorder): TL 13811A
Recorded by ICF International *Date June 8, 2018

L1. Historic and/or Common Name: Meadowlark Junction to Escondido Substation
L2a. Portion Described: ☐ **Entire Resource** ☒ **Segment** ☐ **Point Observation** ☐ **Designation:**
b. Location of point or segment: (Provide UTM coordinates, legal description, and any other useful locational data. Show the area that has been field inspected on a Location Map) UTMs, 11S 480842 mE / 3661836 mN (westernmost tower); 11S 488945 mE / 3663444 mN (easternmost tower
L3. Description: (Describe construction details, materials, and artifacts found at this segment/point. Provide plans/sections as appropriate.)

See Primary Form and Continuation Sheet, *P3a. Description

L4. Dimensions: (In feet for historic features and meters for prehistoric features)
- **a. Top Width:** N/A
- **b. Bottom Width:** N/A
- **c. Height or Depth:** 50-87 feet
- **d. Length of Segment:** 7.4 miles

L5. Associated Resources: TL 23011/23051 (adjacent line)

L4e. Sketch of Cross-Section:

See Location Map and Photographs on Primary Form and Continuation Sheets

L6. Setting: (Describe natural features, landscape characteristics, slope, etc., as appropriate.) Most of TL 13811A is aligned east-west through undeveloped or rural hills covered by grass or California chaparral. Recent suburban development has altered the generally natural or rural setting on the north side of TL 13811A in southern San Marcos and in the area of Harmony Grove.

L7. Integrity Considerations: TL 13811A between Meadowlark Junction and Harmony Grove Road has excellent historical integrity in that it consists of 29 intact steel lattice towers installed in 1959. Its setting has been altered by suburban development in of Harmony Grove and southern San Marcos.

L8b. Description of Photo, Map, or Drawing (View, scale, etc.)
TL 13811A Tower Location 100 at right, looking north from Bresa de Loma Drive near Harmony Grove

L9. Remarks:

L10. Form Prepared by: (Name, affiliation, and address)
T. Yates, ICF
525 B Street, Suite 1700
San Diego, California 92101

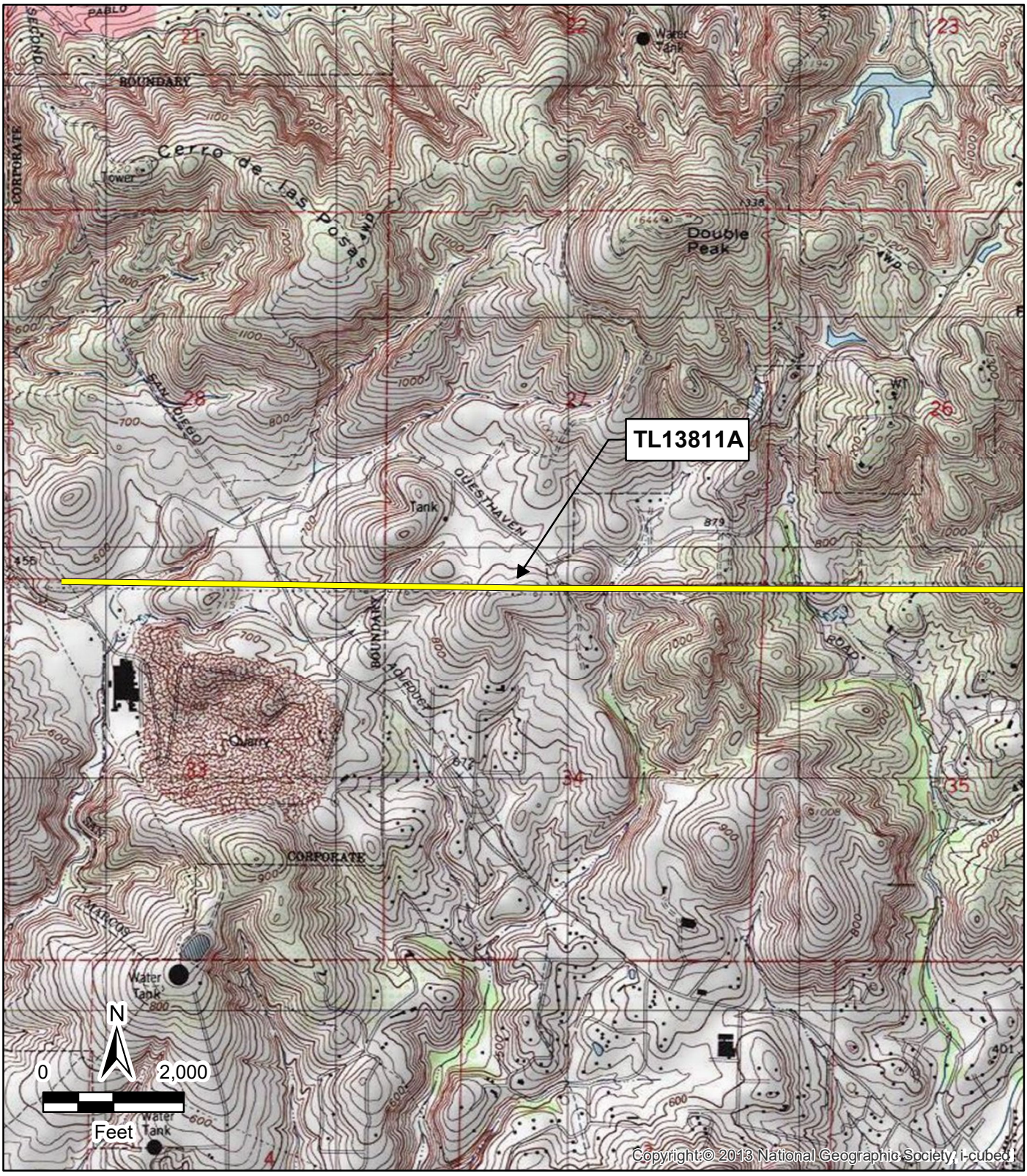
L11. Date: June 27, 2018

State of California - The Resource Agency
DEPARTMENT OF PARKS AND RECREATION
LOCATION MAP

Primary #: _____
Trinomial: _____

Resource Name or #: TL13811A

Map Name: Rancho Santa Fe, CA **Scale:** 1:24,000 **Date of Map:** 1997



Required information is bold

State of California - The Resource Agency
DEPARTMENT OF PARKS AND RECREATION

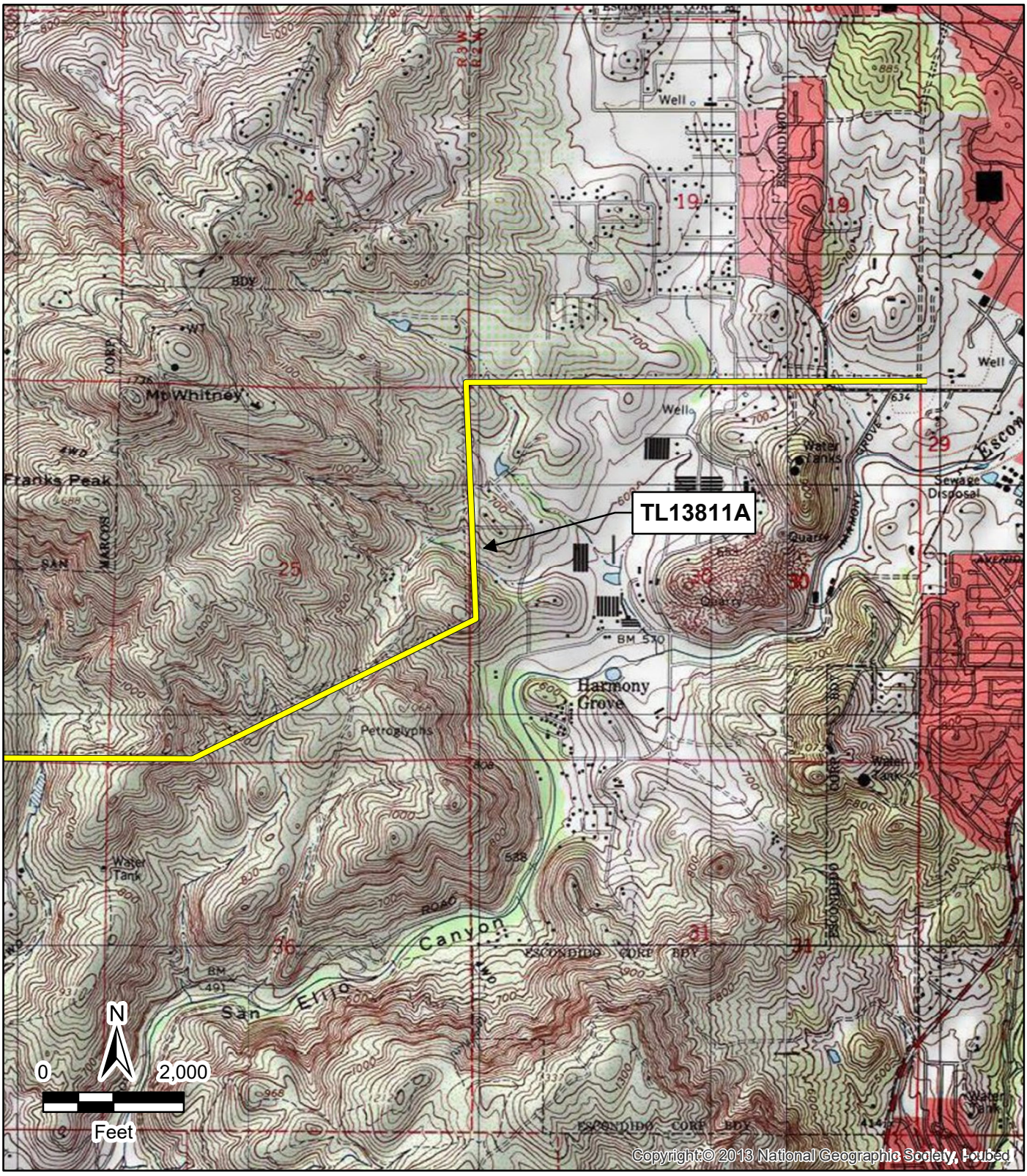
LOCATION MAP

Primary #: _____

Trinomial: _____

Resource Name or #: TL13811A

Map Name: Rancho Santa Fe and Escondido, CA **Scale:** 1:24,000 **Date of Map:** 1997



Required information is bold

*P3A. Description (continued):

Within the Project Corridor, TL 13811A is carried by 29 steel lattice towers ranging from 50 to 87 feet high. The space between the towers ranges from between approximately 365 and 1,900 feet. Each of the TL 13811A steel-lattice towers has four cylindrical concrete anchorages. The majority of the tower structures consist of trapezoidal bodies with vertical, horizontal, and cross bracing. Above the bodies, cross arms project outward from opposing sides of squared cross-braced cages forming the upper portions of the towers. Six insulators are suspended vertically from the ends of the cross arms. Distinguishing the TL 23011/23051 towers on the north side of the Project Corridor segment from the TL 13811A towers are angled insulators and pyramidal cage caps. In the vicinity of Harmony Grove and Meadowlark Junction, circuits extend from TL 13811A towers to connect to other lines carried by steel or wood poles. None of these poles appear to be 50 years of age or older based on pole card information, or on a combination survey inspection and development patterns illustrated by historic and more recent topographic maps.

*B10. Significance (continued):

Power lines are not the type of property typically found to have significance for a direct association with an individual important to history. Properties found to have significance for such association are typically the residences of individuals important to the founding or early history of a community, or properties where an individual performed the work that made them historically significant. Research yielded no evidence that TL 13811A is an exception in this regard. TL 113811A is not, therefore, recommended eligible under NRHP Criterion B or Criterion 2 of the CRHR or the Local Register.

TL 113811A does not have historical significance within the context of electrical infrastructure engineering. Although the original voltage transmitted by TL 113811A is not known, SDG&E constructed it in 1959, well after the 1912-1941 period of significance for 67kV to 230 kV lines carried by steel lattice towers. TL 113811A has certainly never been a 500 kV line, and was constructed prior to the 1965-1970 period of significance for 500 kV transmission lines. For these reasons, TL 113811A is not recommended eligible under NRHP Criterion C or Criterion 3 of the CRHR or the Local Register.

TL 13811A does not meet any of the definitions set forth by the County's RPO. It is not formally determined eligible or listed in the NRHP, has not received an H designator, and is not a one-of-a-kind, locally unique, or regionally unique cultural resource containing a significant volume and range of data or materials. TL 13811A is not the location of past or current sacred religious or ceremonial observances.

State of California – The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code 6Z
Other Listings _____
Review Code _____ **Reviewer** _____ **Date** _____

 ***Resource Name or #** (Assigned by recorder): Escondido Substation

P1. Other Identifier:
***P2. Location:** ☐ **Not for Publication** ■ **Unrestricted** ***a. County:** San Diego
and (P2b and P2c or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quad:** Valley Center, CA **Date:** 1968 (PR 1975) **T** 12S; **R** 2W **Sec** Not Sectioned; Los Vallecitos De San Marcos Land Grant, San Bernardino **B.M.**
c. Address N/A City Escondido Zip 92029
d. UTM: (give more than one for large and/or linear resources): Specific location available on request.
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate):
***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries):

Situated amid parking lots and a nearby SDG&E facilities building, Escondido Substation occupies an approximately 5-acre square area between Auto Park Way and W. Mission Road. The terraced site is entirely surrounded by security fences. Eleven power lines access the facility, mostly from the south. This sizeable substation contains an abundance of transformers, circuit breakers, switches, busbars, capacitor banks, and other equipment that has been subject to alteration and replacement over the last 50 years. Much of this equipment is on concrete pads. Other elements have concrete footings. The facility contains five rectangular-plan utilitarian buildings as well as multiple smaller enclosed utilitarian structures. One of the buildings has exposed concrete block walls. Others have metal siding and roofing. Entirely lacking in architectural expression, the buildings and enclosed structures are commonplace examples of latter-twentieth-century substation construction. At the south side of the substation, multiple poles that would be affected by the Proposed Project carry power lines accessing the facility. Based on available pole cards, historical aerial photographs, and inspection during the survey, none of these poles appear to be 50 years of age or older.

***P3b. Resource Attributes:** (List attributes and codes) HP39. Other (Substation)
***P4. Resources Present:** ■ Building ■ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ Other (Isolates, etc.)

P5b. Description of Photo: (View, date, accession#): Bird's Eye Aerial View of Escondido Substation

***P6. Date Constructed/Age and Sources:**
■ Historic ☐ Prehistoric ☐ Both
Circa 1950 (see page 2)

***P7. Owner and Address:**
San Diego Gas and Electric Company
8315 Century Park Court
San Diego, CA 92123

***P8. Recorded by:** (Name, affiliation, address)
T. Yates and N. Cox, ICF
525 B Street, Suite 1700
San Diego, California 92101

***P9. Date Recorded:** June 8, 2018

***P10. Survey Type:** (Describe) Intensive

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") ICF. 2018. Historical Resource Inventory and Evaluation Report for TL 6975: Escondido to San Marcos Project, San Diego County, California. Prepared for SDG&E.

***Attachments:** ■ Location Map ☐ Sketch Map ■ Continuation Sheet ■ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other (list) _____

B1. Historic Name: Escondido Substation
B2. Common Name: Escondido Substation
B3. Original Use: Utility company electrical substation B4. Present Use: Utility company electrical substation
***B5. Architectural Style:** N/A
***B6. Construction History:** (Construction date, alteration, and date of alterations): Historic aerials indicate that the substation was established at the present-day site between 1947 and 1953. It was substantially expanded after 1967.
***B7. Moved?** ■ **No** ☐ **Yes** ☐ **Unknown Date:** _____ **Original Location:** _____
***B8. Related Features:**
B9. Architect: Unknown
b. Builder: Unknown
***B10. Significance: Theme:** N/A **Area:** N/A
Period of Significance: N/A **Property Type:** Utility company electrical substation **Applicable Criteria:** N/A
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

Escondido Substation is not recommended eligible for listing in the NRHP, the CRHR, or the County's Local Register, and it does not meet any of the County's Resource Protection Ordinance (RPO) criteria. SDG&E began operations in Escondido in 1917. Research indicates that SDG&E operated an "Escondido Substation" at a different site than the present-day Escondido Substation site prior World War II. The present-day substation site appears to have been established circa 1950. No substation elements are visible at the site in a 1947 aerial photograph of the site. A subsequent aerial photograph shows that SDG&E had constructed substation electrical equipment and structures at the site by the end of 1953. Historic aerial photos indicate that the substation had grown modestly by 1967. SDG&E improved and expanded the substation substantially thereafter, likely within a few years after 1967 given the growth that occurred in the area at that time (Fisher 1942; NETR 2018).

Escondido Substation does not appear significant as an important representation of the theme of Community Development, World War II and Post-War Power Line Development. SDG&E substantially expanded Escondido Substation after 1967 to accommodate northern San Diego County growth. Although the facility has association with growth, it does not represent seed infrastructure responsible for the formation or early development of Escondido. Although the facility is a large substation, it is too commonplace an example of electrical infrastructure to represent the theme of post-World War II Community Development history in an important way. Consequently, Escondido Substation is not recommended eligible under Criterion A of the NRHP or Criterion 1 of the CRHR or the Local Register (see continuation sheet)

B11. Additional Resource Attributes: (List attributes and codes)

***B12. References:** Fisher, Percy. 1942. Our Twenty-Five Years in Escondido. *San Diego Consolidated Gas and Electric Company News Meter*. May (18); 3, 5: National Environmental Title Research, LLC (NETR). 2018. Historic Aerial Photographs of San Marcos and Escondido, 1947, 1953, 1964, 1967, 1980, 1989. Available: <www. historicaerials.com>. Accessed June 23, 2018. 2018; SDG&E. Pole Cards for Poles and Towers in TL 6975 Project Corridor. On file at SDG&E, San Diego, California.

B13. Remarks:

***B14. Evaluator**: Timothy Yates, Ph.D.

***Date of Evaluation:** June 26, 2018

(This space reserved for official comments.

(Sketch Map with north arrow required.)

State of California - The Resource Agency
DEPARTMENT OF PARKS AND RECREATION

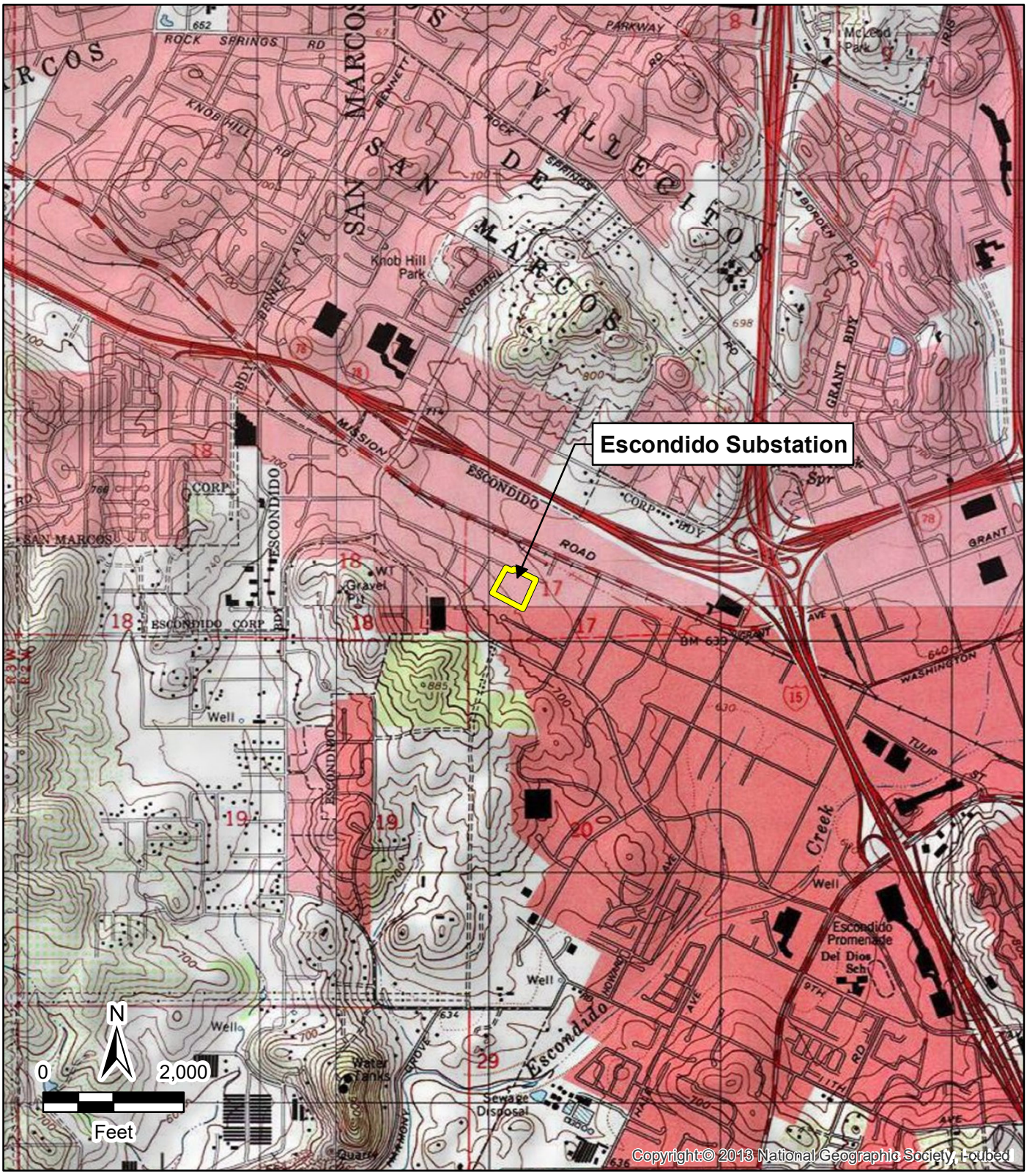
LOCATION MAP

Primary #: _____

Trinomial: _____

Resource Name or #: Escondido Substation

Map Name: Valley Center, CA **Scale:** 1:24,000 **Date of Map:** 1997



Required information is bold

*B10. Significance (continued):

Non-residential properties with significance for association with a historically important individual are typically the place where such an individual performed the work for which they are primarily known. Research yielded no evidence that a historically important individual had such an association with the subject substation facility. Escondido Substation is not, therefore, recommended eligible under NRHP Criterion B or Criterion 2 of the CRHR or the Local Register.

Escondido Substation does not have significance as the work of a master architect, builder, or engineer, as a property with a building or buildings possessing high artistic value, or as an important example of a type, period or method of construction. The substation's five rectangular-plan buildings and its other enclosed structures are entirely utilitarian in terms of design and construction. None are important examples of an architectural style or local vernacular construction. The facility contains an abundance of electrical equipment subject to alteration and replacement over the past 50 years and common to substantial substations of the latter twentieth century. For these reasons, Escondido Substation is not recommended eligible under NRHP Criterion C or Criterion 3 of the CRHR or the Local Register.

Escondido Substation does not meet any of the definitions set forth by the County's RPO. It is not formally determined eligible or listed in the NRHP, has not received an H designator, and is not a one-of-a-kind, locally unique, or regionally unique cultural resource containing a significant volume and range of data or materials. Escondido is not the location of past or current sacred religious or ceremonial observances.

Appendix B
List of TL 6975 Corridor Poles

List of TL 6975 Project Corridor Poles

*FD: Field Data (verified during 2018 survey); S: Steel; W: Wood; U: Unknown; SL: Steel Lattice; W Stub: Wood Stub Pole; S Stub: Steel Stub Pole

Pole Card (y/n)	Pole/Tower Location Number	Type	Date of Installation	Dates Year, Modification	Height	Anchorage	Voltage	Comment
Y	2.1	W	1971 installed (FD)	1971	52			
Y	3	W	1992 installed (FD)	1968, 1969, 1982, 1992	60 ft, 70 ft	2-PTG (D) - S/E, A (T) (2G)-S/E, A (T)-S/E, ANC (D) G-S/E	69 KV	
Y	4	W	1982 installed (FD)	1941, 1962, 1965, 1965, 1967, 1968, 1969, 1975, 1982, 1985	60 ft, 70 ft	Anc D-S/E, A T(3-G)-S/W, sdwk (D) Anc-S/W / S (D) PTG- S/E	69 kv	
	5	W	Less than 50 years (FD)		25			
Y	6	W	1967 installed (FD)	1920, 1944, 1965, 1967, 1969, 1970, 1971, 1975, 1976, 1982, 1989	60 ft, 65 ft	HG-S/E, Anc- S, Anc- S, Arm G-S, Anc G-S, STUB S, ANC-S, ARM G-S	69 kv	
Y	7	W	1985 installed (FD)	1937, 1967, 1985	40 ft,70 ft, 80 ft	Multiple anchors	69 kv	
Y	8	W	1985 installed (FD)	1985	80 ft	2 ARM-G-N, ARM-G-E, HG-N, 2 ARM-G-N, HG-N	69 Kv	
Y	9	W	1985 installed (FD)	1985	50 ft	(2) ARM-G-E; STUB--E-40'-1, ANC-E/O STUB (2G), ANC-E/O STUB	12 kv	
	9.1	W	1989 installed (FD)	1989	29.5 ft			
	10	W Stub	1985 installed (FD)		30			

Pole Card (y/n)	Pole/Tower Location Number	Type	Date of Installation	Dates Year, Modification	Height	Anchorage	Voltage	Comment
Y	11	W	1985 installed (FD)	1920, 1936, 1948, 1952, 1957, 1967, 1969, 1976, 1985, 1985	unknown, 60 ft, 70 ft, 70 ft		69 kv	
Y	12	W	1985 installed (FD)	1982, 1985	70 ft, 70 ft	STUB-N, STUB- E, AG-E, HG-N, ANC-N, ANC-E.	69 KV	
Y	13	W	1985 installed (FD)	1982, 1985	65 ft, 70 ft	HG-W	69 KV	
Y	14	W	1985 installed (FD)	1982, 1985	65 ft, 70 ft		69 KV	
Y	15	W	1985 installed (FD)	1982, 1985	65 ft, 70 ft		69 KV	
Y	16	W	1985 installed (FD)	1982, 1985	65 ft, 70 ft	HG-N	69 kv	
	17	W Stub	Less than 50 years (FD)					
Y	18	W	1985 installed (FD)	1982, 1985	65 ft, 70 ft		69 kv	
Y	19	W	1985 installed (FD)	1982, 1985	65 ft, 75 ft		69 kv	
Y	20	W	1985 installed (FD)	1982, 1985	70 ft, 80 ft	ARM-G-W, BIS ANC-S, ARM-G-W, 2 BIS ANC-W, ARM-G-W, BIS ANC-2G-SE	69 kv	
Y	21	W	1991 installed (FD)	1982, 1985, 1991	80 ft, 95 ft	ANC-T-SW, BIS-ANC-S, 2 ANC-W, HG, ANC-W, BIS-A(2G)-SW, ANC-D-	69 kv	

Pole Card (y/n)	Pole/Tower Location Number	Type	Date of Installation	Dates Year, Modification	Height	Anchorage	Voltage	Comment
						W, ANC-D-W, A(2G-T-S, ANC-T-S)		
Y	22	W	1991 installed (FD)	1982, 1991	75 ft, 90 ft	20' STUB, 40' STUB, ANC-T-W, 2 ARM-G-W, 40'STUB W, 2 ANC-W, 30 S-T-W, 3HG-T-W, 20 S-T-N, 3 HG-T-N, 3 HG-D-N, 3 HG-D-W	69 kv	
	23	S Stub	1991 installed (FD)		25			
	24	S Stub	1991 installed (FD)		25			
Y	25	S	Less than 50 years (FD)	1982, 1991	65.5	ANC-T-SW, ANC-T-E, ANC-T-E, 2 ARM G-N, A(2G-E)		
Y	26	W	Less than 50 years (FD)	1920, 1944, 1982, 1986	60 ft	2 ARM-G-E	12 KV	
Y	27	U	Less than 50 years (FD)	1918, 1920, 1931, 1944, 1946, 1957, 1962, 1982, 1983	60 ft	ANC G-N, ANC-T-S / BIS D ANC-S, 2 BIS ANC-S	69 KV	
Y	28	W	1982 installed (FD)	1944, 1946, 1957, 1982, 1982, 1984,	55 ft, 65 ft	A-N, ANC-N / BIS ANC-N, BIS ANC-N, BIS ANC-N	69 KV	
Y	29	S	Less than 50 years (FD)	1944, 1946, 1957, 1982	50 ft, 60 ft		69 kv	
Y	30	S	Less than 50 years (FD)	1944, 1946, 1957, 1982, 1984, 1987	55 ft	ANC-SW, GUY SW / STUB POLE SW/ ANC SW	69 kv	
Y	31	S	Less than 50 years (FD)	1944, 1946, 1967, 1982	50 ft, 65 ft		69 kv	

Pole Card (y/n)	Pole/Tower Location Number	Type	Date of Installation	Dates Year, Modification	Height	Anchorage	Voltage	Comment
Y	32	S	Less than 50 years (FD)	1944, 1946, 1957, 1982	50 ft		69 kv	
Y	33	W	1990 installed (FD)	1944, 1946, 1957, 1982, 1987, 1990 , 1991	50 ft, 65 ft, 85 ft		69 kv	
Y	34	W	Less than 50 years (FD)	1973	24 ft			
Y	35	W	1982 installed (FD)	1944, 1946, 1957, 1982	50 ft, 60 ft		69 Kv	
Y	36	W	Less than 50 years (FD)	1944, 1946, 1954, 1957, 1982	45 ft, 60 ft	A-N, ANC-G-N	69 KV	
Y	37	W	1993 installed (FD)	1951, 1958, 1972, 1992, 1993	40 ft, 70 ft	HG-N		
	38	W Stub	Less than 50 years (FD)		34			
	39	W	1993 installed (FD)		70			
Y	40	W	Less than 50 years (FD)	1944, 1946, 1957, 1959, 1982	50 ft, 60 ft	S-HG-N, HG-N	69 KV	
	41	W Stub	Less than 50 years (FD)		30			
	42	W	1993 installed (FD)		52.5			
Y		W	1993 installed (FD)	1944, 1946, 1957, 1982, 1993	50 ft, 70 ft		69 kv	
	44	W	Less than 50 years (FD)		20.5			
Y	45	W	1993 installed (FD)	1944, 1946, 1957, 1982, 1987, 1988, 1993	50 ft., 60 ft	S-A-HG-N, A-W, HG-N, PTG-T-N / ANC-G-N, S-HG-A, STUB N / STUB / HG-N/ ANC(2-G)-N	69 KV	

Pole Card (y/n)	Pole/Tower Location Number	Type	Date of Installation	Dates Year, Modification	Height	Anchorage	Voltage	Comment
	46	W Stub	Less than 50 years (FD)		29.5			
Y	47	W	1989 installed (FD)	1944, 1955, 1957, 1982	50 ft	S-A-HG-N, S-A-HG-N, PTG-N, PTG-N, ANC-G-N	69: KV	
	48	W	1992 installed (FD)		29.5			
Y	49	W	1992 installed (FD)	1944, 1957, 1982, 1986, 1992 (FD)	56.5	S-A-HG-N	69 Kv	
	50	W	1992 installed (FD)		43			
Y	51	W	1993 installed (FD)	1944, 1957, 1967, 1974, 1979, 1982, 1993	60 ft, 70 ft	A-2G-W / A-2G-S, A-W / A-S, ANC-W, 2 ANC-S-S, STUB-35'S / ARM G-S / 2 ANC-S	69 KV	
	52	W	Less than 50 years (FD)		43			
	53	W	Less than 50 years (FD)		43			
	54	W	Less than 50 years (FD)		56.5			
Y	54.1	W	1964 installed	1960, 1964, 1965, 1982	35 ft, 60 ft	A-S	69 kv	Info Only – No Work
Y	54.2	W	1957 installed	1957, 1960, 1977, 1978, 1982	45 ft		12 kv	Info Only – No Work
Y	54.3	W	1982 installed	1944, 1957, 1982, 1990	50 ft, 65 ft		69 kv	Info Only – No Work
	71	S	Less than 50 years (FD)		80			
Y	71.1	S	Less than 50 years (FD)	1947, 1962, 1970, 1978, 1992	30 ft, 30 ft	A-W, A-G-W, ANC-W		Info Only – No Work
	71.2	S	Less than 50 years (FD)		170			Info Only – No Work

Pole Card (y/n)	Pole/Tower Location Number	Type	Date of Installation	Dates Year, Modification	Height	Anchorage	Voltage	Comment
Y	71.3	SL	1973 installed (FD)	1973	85 ft			Info Only – No Work
Y	71.4	SL	1973 installed (FD)	1973	90 ft			Info Only – No Work
	72	S	Less than 50 years (FD)		60			
Y	73	SL	1959 installed (FD)	1959, 1963	75 ft			
	74				70			Not Present (FD)
	76	W	Less than 50 years (FD)		74.5			
	77	W	Less than 50 years (FD)		43			
	77.1	W	Less than 50 years (FD)		74.5			Info Only – No Work
	79	W	Less than 50 years (FD)		47.5			
Y	80	SL	1959 installed (FD)	1959, 1963	75 ft			
y	81	SL	1959 installed (FD)	1959, 1963	50 ft			
y	82	SL	1959 installed (FD)	1959, 1963	85 ft			
y	83	SL	1959 installed (FD)	1959, 1963	50 ft			
y	84	SL	1959 installed (FD)	1959, 1963	50 ft			
y	85	SL	1959 installed (FD)	1959, 1963	60 ft			
y	86	SL	1959 installed (FD)	1959, 1963	65 ft			
y	87	SL	1959 installed (FD)	1959, 1963	57 ft			
Y	88	SL	1959 installed (FD), 1973 Replace Foundation	1959, 1963, 1973	62 ft			
Y	89	SL	1959 installed (FD)	1959, 1963	87 ft			
Y	90	SL	1959 installed (FD)	1959, 1963	60 ft			
Y	91	SL	1959 installed (FD)	1959, 1963	50 ft			
Y	92	SL	1959 installed (FD)	1959, 1963	85 ft			
Y	93	SL	1959 installed (FD)	1959, 1963	60 ft			
Y	94	SL	1959 installed (FD)	1959, 1963	54 ft			

Pole Card (y/n)	Pole/Tower Location Number	Type	Date of Installation	Dates Year, Modification	Height	Anchorage	Voltage	Comment
Y	95	SL	1959 installed (FD)	1959, 1963	75 ft			
Y	96	SL	1959 installed (FD)	1959, 1963	75 ft			
Y	97	SL	1959 installed (FD)	1959, 1963	80 ft			
Y	98	SL	1959 installed (FD)	1959, 1963	74 ft			
	99	S	Less than 50 years (FD)		83.5			
	99.1	S	Less than 50 years (FD)		78.11			Info Only – No Work
Y	100	SL	1959 installed (FD)	1959, 1963	85 ft			
Y	101	SL	1959 installed (FD)	1959, 1963	75 ft			
Y	102	SL	1959 installed (FD)	1959, 1963	50 ft			
Y	103	SL	1959 installed (FD)	1959, 1963	50 ft			
Y	104	SL	1959 installed (FD)	1959, 1963	55 ft			
Y	105	SL	1959 installed (FD)	1959, 1963	65 ft			
Y	106	SL	1959 installed (FD)	1959, 1963	60 ft			
	106.1	S	Less than 50 years (FD)					Info Only – No Work
Y	107	SL	1959 installed (FD)	1959, 1963	70 ft			
Y	108	SL	1959 installed (FD)	1959, 1963	64 ft			
	109	S	Less than 50 years (FD)		52			
	110	S	Less than 50 years (FD)		145			
	111	S	Less than 50 years (FD)		155			
	112	S	Less than 50 years (FD)		160			
	113	S	Less than 50 years (FD)		160			
	114	S	Less than 50 years (FD)		150			
	115, 116	U			50			Substation
	118	W	Less than 50 years (FD)		70			
	119	W	Less than 50 years (FD)		65.5			
	119.1	W	2005 installed (FD)		65.5			Info Only – No Work

Pole Card (y/n)	Pole/Tower Location Number	Type	Date of Installation	Dates Year, Modification	Height	Anchorage	Voltage	Comment
	119.2	S	Less than 50 years (FD)		83			Info Only – No Work
	120	W Stub	Less than 50 years (FD)		38.5			
Y	121	W	Less than 50 years (FD)	1973, 1978	90 ft	A (2-G)-S/W), ANC S/W, A (2-G)-S/E), Anc(3-G)N/W	69 KV	
	122	U			50			Substation
	123	U			50			Substation
	124	U			50			Substation
Y	126	W	Less than 50 years (FD)	1973, 1978	90 ft	A (2-g)-s/w), Anc S/W, A (2-G)-S/E), Anc(3-G)N/W	69 kv	
Y	127	W	Less than 50 years (FD)	1978:00:00	85 ft	Anc (3-G) S/E, Anc (3-G) S/W	69 Kv	
Y	128	W	Less than 50 years (FD)	1978, 1989	85 ft	Anc only S/E, Anc (3-G) S/W, 3 Anc 6-S	69 Kv	
	129							Not Present (FD)
	130	W	Less than 50 years (FD)					
	131	S	Less than 50 years (FD)					
	132	W	Less than 50 years (FD)					
	N/A							Not Present (FD)