

San Diego Gas & Electric Company 04/15/16 Response
A. 15-08-006 Tie Line 649 Wood-to-Steel Replacement Project
California Public Utilities Commission Data Request 01 Dated March 18, 2016
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ADMINISTRATIVE

Question #1

Please provide the list of public agencies and other interested parties as well as the parcel and mailing information for properties within 300 feet of the proposed project electronically in Excel format. (Application Appendix C)

San Diego Gas & Electric Company (SDG&E) Response:

A list of public agencies and other interested parties, as well as the parcel and mailing information for properties within 300 feet of the Tie Line 649 Wood-to-Steel Replacement Project (Proposed Project), in Microsoft Excel format, is provided separately in electronic format.

Question #2

Please indicate if any public or regulatory agency outreach has occurred since completion of the PEA. If yes, please provide information regarding any agency and public involvement contacts and correspondence to date. Please include names, addresses, phone numbers, and e-mail addresses.

SDG&E Response:

- On August 13, 2015, SDG&E (Andy Renger, SDG&E Project Manager; Debbie Collins, SDG&E Senior Environmental Specialist; Todd Voorhees, SDG&E Regional Public Affairs Manager; and Erika Carrillo, Insignia Environmental) met in person with the City of Chula Vista Mayor Mary Salas and Councilmembers Patricia Aguilar, and Pamela Bensoussan to discuss projects in the City of Chula Vista, including the Proposed Project.
- On August 18, 2015, SDG&E (Andy Renger, SDG&E Project Manager; Eden Nguyen, SDG&E Environmental Specialist; Debbie Collins, SDG&E Senior Environmental Specialist; and Todd Voorhees, SDG&E Regional Public Affairs Manager) met in person with the City of Chula Vista Councilmember John McCann to discuss projects in the City of Chula Vista, including the Proposed Project.
- On October 6, 2015, SDG&E (Andy Renger, SDG&E Project Manager and Jennifer Quijano, SDG&E Public Affairs Advisor) met in person with City of Chula Vista Councilmember Steve Miesen, Council Aide Cameron Celeste, and Policy and Outreach Advisor Jason Paguio to discuss projects in the City of Chula Vista, including the Proposed Project.

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Minutes from these meetings are provided in Attachment A: City of Chula Vista Meeting Minutes. The following list provides contact information for the Mayor and Councilmembers:

Mayor Mary Salas

(619) 691-5044 ext. 3024
msalas@chulavistaca.gov

Secretary: Natalie Flores

(619) 691-5044 ext. 3024
nflores@chulavistaca.gov

Chief of Staff: Francisco Estrada

(619) 409-5812
festrada@chulavistaca.gov

City of Chula Vista
Mayor and City Council Office
276 Fourth Avenue
Chula Vista, CA 91910

Councilmember Patricia Aguilar (Seat 2)

(619) 691-5044 ext. 5713
paguilar@chulavistaca.gov

Council Aide: Leslie Wolf Branscomb

(619) 691-5044 ext. 3029
lwolf@chulavistaca.gov

City of Chula Vista
Mayor and City Council Office
276 Fourth Avenue
Chula Vista, CA 91910

Councilmember Pamela Bensoussan (Seat 3)

(619) 691-5044 ext. 5614
pbensoussan@chulavistaca.gov

Council Aide: Karla Mendez

(619) 691-5044 ext. 3026
kmendez@chulavistaca.gov

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Councilmember John McCann (Seat 1)
(619) 691-5044 ext. 3028
jmccann@chulavistaca.gov

Council Aide: Melissa Martin
(619) 691-5044 ext. 5717
mmartin@chulavistaca.gov

City of Chula Vista
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276 Fourth Avenue
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Councilmember Steve Miesen (Seat 4)
(619) 691-5044 ext. 3822
smiesen@chulavistaca.gov

Council Aide: Cameron Celeste
(619) 691-5044 ext. 3823
cceleste@chulavistaca.gov

City of Chula Vista
Mayor and City Council Office
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Policy and Outreach Advisor Jason Paguio
(619) 691-5044 ext. 3823
jpaguio@chulavistaca.gov

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276 Fourth Avenue
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- On December 18, 2015, SDG&E (Andy Renger, SDG&E Project Manager; Eden Nguyen, SDG&E Environmental Lead; and Robert Fletcher, SDG&E Biological Lead) met in person with Patrick Gower from the United States Fish and Wildlife Service (USFWS) and David Mayer and Eric Hollenbeck from the California Department of Fish

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and Wildlife (CDFW), collectively referred to as the wildlife agencies, to discuss the Proposed Project and the associated permitting strategy for compliance with the Federal Endangered Species Act and California Endangered Species Act. During the meeting, the wildlife agencies requested detailed maps of the Proposed Project that included vegetation mapping and impact areas. SDG&E provided the requested maps to the wildlife agencies on January 13, 2016 via email. The following list provides contact information for Patrick Gower, David Mayer, and Eric Hollenbeck:

Patrick Gower, USFWS Biologist
(760) 431-9440
patrick_gower@fws.org

Carlsbad Fish and Wildlife Office
6010 Hidden Valley Road, Suite 101
Carlsbad, CA 92011

David Mayer, CDFW Senior Environmental Scientist
(858) 467-4234
david.mayer@wildlife.ca.gov
3883 Ruffin Rd.
San Diego, CA 92123

Eric Hollenbeck, CDFW Environmental Scientist
(858) 467-4234
eric.hollenbeck@wildlife.ca.gov
3883 Ruffin Rd.
San Diego, CA 92123

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PEA SECTION 3 – PROJECT DESCRIPTION

Question #1

Complete the table below listing equipment to be used at each work area type and duration. This is to supplement the information provided in the revised PEA Attachment 3-C: Construction Equipment Summary submitted in October 2015.

Activity	Equipment	Duration of Use
Conductor Installation	2 bucket trucks	8-hours per day
Guard Structures at Heritage Road	2 bucket trucks	2-hours per day
Blasting	1 drill;	
Pulling Sites	Same as stringing sites?	
Existing Pole Removal	1 boom truck; 1 bucket truck; 1 hydraulic pole puller	2-hours per pole; X poles per day
Dewatering	1 submersible pump; 1 desiltation tank	
Vegetation Trimming	1 aerial lift truck; 1 chipper trailer; hand-held mechanical equipment (chain saws, weed trimmer, leaf blower, etc.)	

SDG&E Response:

- Conductor installation, guard structures at Heritage Road, and pulling site equipment are included under stringing activities in the revised Proponent’s Environmental Assessment (PEA) Attachment 3-C: Construction Equipment Summary submitted in October 2015.
- The drill for blasting is included under pier foundation construction in the revised PEA Attachment 3-C: Construction Equipment Summary submitted in October 2015.
- The vegetation trimming equipment described in the PEA is for operation and maintenance activities; therefore, this equipment was not included in Attachment 3-C: Construction Equipment Summary.
- Existing pole removal equipment is included under stringing activities (including the hydraulic pole puller that will be powered by the boom truck), except for the chainsaw, which has been included in Attachment B: Additional Construction Equipment.
- The submersible pump for dewatering has also been included in Attachment B: Additional Construction Equipment.

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- The desiltation tank will not have an engine or separate pump; therefore, it is not included in Attachment B: Additional Construction Equipment.
- A backhoe has been added for guy wire installation during the Direct-Bury Construction and Pole Installation phase, and a crew truck and skid steer have been added for access road modifications during the Staging Yard Setup/Road Reestablishing phase.

Question #2

How long would construction activities generally take at each pole location and work site? Please complete the table below, which is modified from PEA Table 3-4 on Page 3-25.

Additionally, please specify the total number of workers for each construction phase identified in PEA Table 3-4.

Activity	Approximate Duration (days per site)	Total Duration of Activity (days)	Total Number of Workers
Staging yard set-up/Road refreshing/Vegetation trimming/BMP Installation	N/A	?	
Road Modifications (widening)	?	?	
Micro-Pile Foundation Construction	3?	40	
Pier Foundation Construction	4?	63	
Direct-Buried Construction and Pole Installation	5?	90	
Trenching for Installation of Underground Cables	X days for 20-ft long trench at Pole 18.5; X days for 100-ft long trench between Poles 25 and 26.	3	
Guard Structures at Heritage Road	?	?	
Blasting	?	?	
Stringing Activities (General site anywhere along the alignment)	5?	60	
Stringing Activities near Pole 1	5?	N/A	
Stringing Activities near Pole 10	2?	N/A	
Stringing Activities near Pole 11	?	N/A	
Stringing Activities near Pole 18.1	?	N/A	

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Activity	Approximate Duration (days per site)	Total Duration of Activity (days)	Total Number of Workers
Stringing Activities near Pole 18.3	?	N/A	
Stringing Activities near Pole 18.5	?	N/A	
Stringing Activities near Pole 22	?	N/A	
Stringing Activities near Pole 23	?	N/A	
Stringing Activities near Pole 97 (north, east west)	20?	N/A	
Pulling Sites	?	?	
Existing Pole Removal	1 day/ potentially delayed for 30-60 days if third party facilities are present	?	
Transfer conductor/Sagging Activities	?	60	
Demobilization/Clean Up/Road refreshing	N/A	26	
Revegetation	?	?	

SDG&E Response:

- The approximate duration per site, total duration, and total number of workers for each activity are provided in Attachment C: Proposed Construction Schedule, which has been estimated based on the design completed to date and will depend on the future construction contractor’s strategy to complete the project relative to, but not limited to, site conditions and environmental restrictions, which are subject to change.

Question #3

Identify the sizes, types, and quantity of all generators that would be used, and their duration of use throughout the construction period.

SDG&E Response:

- Each trailer at the staging yards will require one gasoline or diesel 25 kilowatt (kW) generator for an average of approximately 10 hours per day. Approximately three trailers will be required for the Proposed Project for the entire duration of construction.
- Each crew will typically use one gasoline or diesel 2~3 kW generator for an average of approximately four hours per day during micro-pile and pier foundation pole installation,

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which is anticipated to take approximately 40 days for micro-pile foundation construction and approximately 63 days for pier foundation pole installation.

Question #4

Please clarify if PEA Table 3-5 on page 3-26 includes the use of multiple construction teams; would there be 35 total construction personnel throughout the duration of project construction or more? [From PEA Page 3-25: 25 line workers (5 crews of 5), 10 ground workers (5 crews of 2), 1 general foreman, 4 working foreman = 40 construction personnel]

SDG&E Response:

- SDG&E estimates a maximum of 36 construction personnel on site at one time throughout the duration of project construction. The working foremen are included in the crews of five workers. However, the general foreman was not included in the original headcount estimation; therefore, one additional construction personnel should be added to the total.

Question #5

Please clarify all nighttime lighting requirements for project construction. PEA Section 3, Project Description page 3-25 states that construction activities may occur at night “on occasion.” Section 4-1, Aesthetics page 4.1-17 states floodlights would be used with a portable generator.

- a) How many hours within a 24-hour work day would nighttime lighting be used?
- b) Approximately how many work areas would be lit during the night on any given day throughout the construction period? *For example, approximately X pole work sites, X stringing site(s), and X staging area(s) would require nighttime lighting for up to X hours total, per work day.*
- c) Please provide specifications for the generators to be used for nighttime lighting.

SDG&E Response:

- Planned outages for commercial customers are usually required to be conducted during non-business hours, which could be at night or during the day on a weekend, depending on the customer and direction from SDG&E’s planned outage department.
 - a. If nighttime lighting is required, it could be for up to 12 hours within a 24 hour work day.

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- b. Approximately five pole work areas at a time could require nighttime lighting depending on the number of crews working simultaneously.
- c. Each pole work area would likely require one portable generated light tower. The make, model, and size of the light tower will vary depending on the contractor. An example of a light tower that could be used is a Doosan LSCWKUB-50HZ-T4F Light Tower with a six kW generator that extends up to 30 feet tall.

Question #6

PEA Page 3-12 – Please provide a description of how guys, anchorage, and grounding rods would be installed. What equipment would be used for installation? What would be the permanent footprint of these features? Please provide a representative photo of these features.

SDG&E Response:

- Guys will be installed by attaching tensioned cable from either pole to pole or pole to anchor using a bucket truck. Anchors will be installed by digging the anchor in its respective position and placing the plate anchor at the bottom of hole, which will be backfilled with the native soil and compacted as directed in the construction standards, using a drilling rig, backhoe, and an air compressor with a jack hammer or hand dug with shovels. Ground rods will be installed by driving the ground rods into the ground using a sledgehammer or jack hammer.
- The permanent footprint of the anchor will only be the anchor head protruding out of the ground, which is approximately four inches in diameter (0.09 square feet). The guys will not have a permanent footprint on the ground. The grounding rods will have a permanent footprint of approximately 0.5 to 0.75 inches in diameter (<0.01 square feet).
- Attachment D: Guy, Anchor, and Grounding Rod Representative Photographs and Drawings provides representative photographs of guys and anchors, as well as representative standards for direct-bury, pier foundation, and micro-pile foundation steel pole grounding rods, which are subject to change Attachment D: Guy, Anchor, and Grounding Rod Representative Photographs and Drawings.

Question #7

PEA Page 3-19 – What types of materials would be imported and compacted to repair roads? Approximately how much of each type of material (rip rap, gravel, etc.) will be imported? When would these materials be imported (at the start of the project, spread equally throughout the project's duration, or some other timing/project phase)?

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SDG&E Response:

- Typical materials that may be imported and compacted to repair roads include 0.75-inch to one-inch gravel or Class II base rock.
- SDG&E is currently unable to provide an estimated quantity of these materials because there does not appear to be a need for road repairs at this time. The need for road repairs will be determined during reconnaissance activities conducted with the grading contractor prior to the start of the Proposed Project. In addition, the need for access road repair, as well as quantity and type of materials used during repair activities, may change depending on the field conditions closer to the time of construction.
- If required, these materials will be most likely be imported at the start of construction during the Staging Yard Set-Up/Road Refreshing/Vegetation Trimming/Best Management Practice Installation phase and at the end of construction during the Demobilization/Clean Up/Road Refreshing phase.

Question #8

For each construction phase/activity, what is the estimated total quantity (cubic yards) of waste, including removed poles that would require off-hauling to a recycling or disposal site, and the quantity by phase?

SDG&E Response:

- Approximately 1,200 cubic yards (CY) of waste, including removed poles,¹ would require off-hauling to a recycling or disposal site during the Stringing Activities/Transfer Conductor/Sagging Activities/Pole Removal phase.
- Approximately 100 CY of waste would require off-hauling to a recycling or disposal site during the Staging Yard Set-Up/Road Refreshing/Vegetation Trimming/BMP Installation phase.
- Approximately 1,900 CY of waste would require off-hauling to a recycling or disposal site during the Micro-Pile Foundation Construction, Pier Foundation Construction, and Direct-Buried Construction and Pole Installation phase.

¹ As described in the PEA, removal of existing poles will occur immediately following new conductor installation unless third-party facilities are present, which may temporarily delay existing pole removal by approximately 30 to 60 days until the third party relocates its facilities.

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Question #9

When excavated, where would native soil be stockpiled for use in filling the old pole hole? If an old pole is not removed for 60 days, how will stockpiled soil be managed and where would it be stored (see description on PEA Page 3-19)?

SDG&E Response:

- Excavated soil would be temporarily stockpiled adjacent to the excavated hole within the temporary work area. Inactive stockpiles sitting for 14 days or more will require erosion and sediment controls. Stockpiled soil will be managed with appropriate temporary SWPPP Best Management Practices which may include straw wattles, visqueen covering, and silt fencing.

Question #10

Clarify the locations that would be reseeded with native plants. Would the immediate area surrounding new poles be kept free of vegetation? If so, where would reseeded occur?

SDG&E Response:

- Temporarily impacted areas may be reseeded with native plants with the exception of pole structure locations that require clearance requirements in accordance to Public Resources Code 4292 and Title 14, Section 1254 and Code 4293, Title 14, Section 1256 and General Order 95; bare ground sites; or where property owners do not want seeding.

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AIR QUALITY/GREENHOUSE GAS EMISSIONS

Question #11

Please provide an estimate of approximately how much total fossil fuel might be used for the project's construction activities.

SDG&E Response:

- It is difficult to accurately calculate the total fossil fuel consumed during construction due to the various types of heavy equipment and on-road vehicles required to complete the Proposed Project and the unpredictable nature of construction. In addition, the construction contractor(s), and therefore the final construction equipment fleet, has not been selected for the Proposed Project.
- In order to attempt to approximate the total consumption of fossil fuels, an emission factor for carbon dioxide (CO₂) emissions per gallon was obtained. According to the United States Environmental Protection Agency (EPA), approximately 22.2 pounds of CO₂ is released for each gallon of diesel fuel consumed. As shown in Attachment E: Revised Construction Emissions, approximately 780.82 metric tons of CO₂ will be emitted during the construction phase of the project. Using the EPA's conversion factor, the total CO₂ emissions translate to approximately 77,550 gallons of diesel fuel.

Question #12

Please explain (in detail) the calculations used to estimate hauling trips shown in the Trips and VMT table in PEA Attachment 4.3-A Air Quality Modeling Results – CALEEMOD.

- a) Please provide the CALEEMOD file (Excel workbook) used for the PEA analysis.
- b) How does the CALEEMOD Trips and VMT table (PEA Attachment 4.3-A Page 9 of 33) relate to the PEA Attachment 3-C: Construction Equipment Summary and the various trucks included for each phase? Do hauling trips include equipment deliveries and disposal trips? How many trips are associated with equipment importing vs. exporting?
- c) Is there a distinction based on truck type and how they were considered in the estimates of hauling trips listed in the PEA Attachment 4.3-A (Page 9 of 33)? For example, were crew delivery trucks, concrete delivery trucks, and dump trucks, and tractor trailer units (listed in the PEA Attachment 3-C: Construction Equipment Summary) all considered in the hauling trip estimates in the PEA Attachment 4.3-A (Page 9 of 33)? Would they all occur on a daily basis? Further, how were the tractor trailer units considered in CALEEMOD—how many trips were associated with those and were they daily trips or some other frequency? For example, in the PEA Attachment 3-C: Construction Equipment Summary, the Staging Yard Setup/Road Reestablishing phase has a Tractor

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Trailer Unit and a Dump Truck that would cumulatively result in 6 trips per day; however, in the CALEEMOD Trips and VMT table (PEA Attachment 4.3-A Page 9 of 33), no hauling or other trips are shown for this construction phase. A spreadsheet showing how the hauling trips were calculated would be very helpful in addressing these questions.

- d) As an example, upon reviewing the PEA Attachment 4.3-A and the PEA Attachment B: Construction Equipment Summary (Oct. 2015 version), the Pier Foundation Construction phase has a duration of 63 days and 3 trucks associated with it (concrete truck, dump truck, delivery truck—not counting water trucks). It would appear that this would result in an estimate of approximately 189 one-way hauling trips. However, the CALEEMOD results (Attachment 4.3-A Air Quality Modeling Results) shows 79 trips. Please clarify why the CALEEMOD estimate is less.

SDG&E Response:

- As described in response to PEA Section 3 – Project Description Question #1, additional equipment not identified in the PEA will be required to complete the construction phase of the project. As a result, the CalEEMod simulation was revised to account for these pieces of equipment and the resulting construction emissions are presented in Attachment E: Revised Construction Emissions. The resulting output reports from the CalEEMod simulation have been provided as Attachment F: Revised CalEEMod Output Report. The input file from the simulation, in Microsoft Excel format, is provided separately in electronic format.
- An expanded version of Attachment 3-C: Construction Equipment Summary has been provided to clarify the on-road vehicle trips and vehicle miles traveled inputs to the CalEEMod simulation as Attachment G: Revised Construction Equipment Summary. This updated version adds the following columns:
 - a. Vehicle/Equipment Category: Describes if the vehicle/equipment was treated as an on-road or off-road vehicle in the model
 - b. On-Road Vehicle Classification: Identifies a vehicle classification for each on-road vehicle
 - c. Trips per Day/Total Trips: For Worker and Vendor trips, the anticipated trips per day have been provided. For Haul trips, the total anticipated trip requirements for the phase have been provided.
 - d. Trip Length: Lists the total trip length (in miles) for each on-road vehicle trip.

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Haul trips include the delivery of water, concrete, and other backfill material to the site. Haul trips also account for the removal of spoil and other materials from the site. Up to five vendor trips per day have been assigned to account for the delivery of material and equipment to and from the site for each phase, each day.

- Attachment G: Revised Construction Equipment Summary identifies the on-road vehicle requirements for the construction phase of the project. This table also lists the on-road vehicle classification and the anticipated daily truck trips (for worker and vendor trips) and total trips (for haul trips) for each vehicle. In accordance with CalEEMod, worker and vendor trip emissions were calculated using the maximum anticipated trips per day while haul trip emissions were calculated using the total anticipated trips during the entire construction phase.
- Attachment H: On-Road Vehicle Trip Generation Calculations provides the assumptions used to calculate the haul trip requirements for the micro-pile foundation construction, pier foundation construction, direct bury construction and pole installation, and trenching for installation of underground cables phases of the project.
- As described previously, worker and vendor trip emissions were calculated using the maximum anticipated trips per day while haul trip emissions were calculated using the total anticipated trips during the entire construction phase. It is anticipated that haul trucks will not be required each day of construction. Attachment G: Revised Construction Equipment Summary and Attachment H: On-Road Vehicle Trip Generation Calculations provide the assumptions used to calculate emissions from the anticipated on-road vehicle use.

Question #13

How were worker and vendor trips accounted for in the PEA AQ emission estimates since it appears they weren't included in CALEEMOD (based on Attachment 4.3-A Air Quality Modeling Results)? Was there a separate file that estimated worker and vendor trips? If so, please provide the table.

SDG&E Response:

- As described in an email to the CPUC on October 29, 2015, the emissions estimates in the PEA did not include on-road vehicle emissions due to a software issue in CalEEMod. As described in response to Question 3, the anticipated construction equipment list has been revised to include additional equipment not included in the PEA and a revised output report has been included as Attachment F: Revised CalEEMod Output Report. Attachment G: Revised Construction Equipment Summary documents the worker and vendor trip requirements for the Proposed Project that were used to prepare this updated simulation.

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Question #14

Please complete the table below (italics indicate example text):

Activity	Number of Poles or Activity Areas Disturbed	Area per pole/activity site (square feet)	Material Export per pole/activity site (cubic yards by material type)	Material Import per pole/activity site (cubic yards by material type)
Direct Bury	89	314	<i>9.5 cy of waste debris (old wood pole)</i>	<i>2 cy of concrete 1 cy of gravel</i>
Micro-Pile Foundation	7	1260	<i>42.8 cy of unused excavated soil 10 cy of waste debris (old wood pole)</i>	<i>25 cy of concrete 10 cy of gravel</i>
Pier Foundation	21	5625	<i>7.9 cy of unused excavated soil</i>	<i>15 cy of concrete</i>
Access Road Modification	4	1000	N/A	<i>XX cy of gravel</i>
Turnarounds	10		N/A	N/A
Underground Trenches	2	1200	N/A (trenches would be excavated and backfilled with the same material)	N/A (trenches would be excavated and backfilled with the same material)
Stringing Sites	28	4500	N/A	N/A
Guard Structures	2	144	N/A	N/A
Staging Areas	2	435600	N/A	N/A
Pulling Site	1	1875	N/A	N/A

SDG&E Response:

- The completed table is provided in Attachment I: Imported and Exported Materials.

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BIOLOGICAL RESOURCES

Question #15

Provide a copy of the fairy shrimp protocol survey report, when available.

SDG&E Response:

- The fairy shrimp protocol survey report will be provided when complete after the end of the wet season.

Question #16

Please confirm the data shown in PEA Tables 4.4-6, 4.4-7, and 4.4-8 include all temporary and permanent impacts associated with the proposed project, including, but not exclusive of direct bury, micro-pile foundation, and pier foundation pole construction, pole removal, distribution line removal, guard pole installation, underground distribution line intercept trenches, vegetation removal, dewatering, blasting, access road modifications, access turnarounds, overland access, storage and staging areas, stringing sites, and pulling sites.

SDG&E Response:

- The data shown in PEA Table 4.4-6: Anticipated Impacts to Vegetation Communities, Table 4.4-7: Anticipated Impacts to Critical Habitat, and Table 4.4-8: Anticipated Impacts to Sensitive Natural Communities included temporary and permanent impacts associated with the Proposed Project, including the following: direct bury, micro-pile foundation, and pier foundation pole construction; pole removal (except pole location 25); guard pole installation; underground distribution line intercept trenches (except approximately six feet at pole location 18.5); vegetation removal; access road modifications; access turnarounds; storage and staging areas; stringing sites; and pulling sites.
- The impacts associated with the removal of distribution pole location 25, underground distribution line intercept trench outside of the pole work area at pole location 18.5, and overland access have been added to the revised tables in Attachment J: Revised Biological Impacts Tables and the geographic information system (GIS) data that is provided separately in electronic format.
- The temporary and permanent impacts associated with dewatering and blasting are not included because the need for and location of these activities will not be known until construction.

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CULTURAL RESOURCES

Question #17

Please provide an electronic copy of the project archaeological survey report and all excavation reports. Please include copies of all record search materials, including site records, reports, and maps.

SDG&E Response:

- An electronic copy of the archaeological survey report, excavation reports, and record search materials, including site records, reports, and maps is provided under separate cover due to the confidential nature of these reports.

Question #18

Please provide copies of all letters and documentation of Native American consultation not previously included in PEA Attachment 4.5, such as emails or telephone logs from individuals who were contacted.

SDG&E Response:

- Copies of all letters and documentation of Native American consultation were provided in PEA Attachment 4.5-A: Native American Heritage Commission Correspondence. An email and telephone log is provided in Attachment K: Native American Consultation Log.

San Diego Gas & Electric Company 04/15/16 Response
A. 15-08-006 Tie Line 649 Wood-to-Steel Replacement Project
California Public Utilities Commission Data Request 01 Dated March 18, 2016
Confidential information highlighted in **yellow**

HAZARDS AND HAZARDOUS MATERIALS

Question #1

Please confirm that the Federal Aviation Administration (FAA) made a “determination of no hazard to air navigation” and provide a copy of the FAA determination letter.

SDG&E Response:

- In November 2014, SDG&E’s airspace analysis consultant Federal Airways & Airspace reviewed the project structures to determine how many would require notice to the Federal Aviation Administration (FAA) under Title 14 CFR Part 77. The consultant concluded that 34 of the structures exceeded FAA Notice criteria. In December 2014, information for these 34 structures was submitted to the FAA for evaluation using Form 7460-1 Notice of Proposed Construction or Alteration. After completing their evaluation, the FAA issued Determinations of No Hazard for all 34 structures.
- Copies of Federal Airways & Airspace’s report along with copies of the determinations are provided in Attachment L: Federal Aviation Administration Determinations.

Question #2

Where would temporary restrictions of two-way travel on local roadways be required? And what would be the duration of two-way travel restrictions?

SDG&E Response:

- Temporary lane closures may be required at Heritage Road and at Sea Lavendar Way and Black Coral Way. These lane closures could last approximately three days.

San Diego Gas & Electric Company 04/15/16 Response
A. 15-08-006 Tie Line 649 Wood-to-Steel Replacement Project
California Public Utilities Commission Data Request 01 Dated March 18, 2016
Confidential information highlighted in yellow

HYDROLOGY AND WATER QUALITY

Question #3

Regarding the use of potable and recycled water to control dust on roads, how was the estimated 4.5 million gallons needed for dust control calculated? Is this the minimum amount of water necessary to maintain dust control?

SDG&E Response:

- The amount of water needed for dust control was calculated based on the amount of water used on a similar wood-to-steel replacement project, which was approximately 52.3 gallons per foot of access road. Approximately 68,514 feet of access roads may be utilized for the Proposed Project. Therefore, it was estimated that approximately 3.6 million gallons of water may be required for the Proposed Project. This amount was rounded up to 4.5 million gallons to account for potential variations in the rate of application required to control dust.

Question #4

Is the Otay Water District Will Serve Letter dated October 2014 still valid? Has SDG&E confirmed the Water District is still able to provide the amount of water requested?

SDG&E Response:

- SDG&E obtained an updated will serve letter from the Otay Water District on April 4, 2016, which is provided in Attachment M: Updated Will Serve Letter. The Otay Water District is still able to provide the amount of water requested.

San Diego Gas & Electric Company 04/15/16 Response
A. 15-08-006 Tie Line 649 Wood-to-Steel Replacement Project
California Public Utilities Commission Data Request 01 Dated March 18, 2016
Confidential information highlighted in **yellow**

GIS DATA

Question #5

Most of the GIS data submitted in December 2015 is not usable for our analysis, as those layers are generally only lines and points that do not define areas. We need polygon layers in order to conduct the CEQA analysis.

Please submit the following GIS layers:

1. Pole Disturbance Areas, with pole type and associated work area identified (direct-bury, pier foundation, micro-pile). In the revised route maps submitted in December 2015, some of the pole sites are shown with a circular buffer and some are shown with a square-shaped buffer. Please label the buffer areas according to the type of pole to be installed.
2. Staging Yards
3. SDG&E's Utility Line Easements (we need the locations of the right-of-way that is 20ft wide from Pole 1 to 117 and 12ft wide from pole 18.1 and 18.5 as stated on PEA Page 3-14)
4. Access Road Easements (if any)
5. Access Road Turnarounds
6. Pulling Sites
7. Stringing Sites

SDG&E Response:

A GIS data transfer document for Proposed Project components is provided separately in electronic format with the GIS layers, which includes a description for each shapefile as well as the geometry (line, polygon, or point) and the source. The following GIS layers are provided separately in electronic format:

- GIS layers for pole work areas² with pole type and associated work area identified (direct bury, pier foundation, micro-pile foundation)

² As stated previously in response to deficiency report #2, the circular shapes provided for the pole work areas represent a conservative estimate of overall impacts that are anticipated to occur as a result of pole installation or removal – not the actual work areas that will be required to construct the Proposed Project. Immediately prior to

San Diego Gas & Electric Company 04/15/16 Response
A. 15-08-006 Tie Line 649 Wood-to-Steel Replacement Project
California Public Utilities Commission Data Request 01 Dated March 18, 2016
Confidential information highlighted in yellow

- GIS layers for staging yards
- GIS layers for SDG&E's utility line rights-of-way
- GIS layers for access road turnarounds/staging yards
- GIS layers for pulling sites
- GIS layers for stringing sites
- GIS layers for access roads

Most of SDG&E's access easements do not have a width because they are not defined roads. SDG&E typically has access by way of practical route or routes. SDG&E does have GIS data for the routes that they typically use, but it is not necessarily correlated with a defined easement and does not have a width. GIS layers for the access roads are provided separately in electronic format.

Question #6

Provide GIS layers (polygons) for all data presented in the Biological Technical Memorandum, PEA Attachment 4.4-A. GIS shapefiles should include documented species occurrences, mapped vegetation communities, plant species observations, wildlife species observations, Quino checkerspot butterfly survey results, Coastal cactus wren survey results, riparian bird survey results, burrowing owl survey results, soil types, jurisdictional/non-jurisdictional resources (waters/wetlands/vernal pools/road ruts), land management and habitat plan areas (Att. 4.4A, Figures 8 and 9), and any other survey results pertinent to this project.

SDG&E Response:

A GIS data transfer document for all data presented in Attachment 4.4-A: Biological Technical Report is provided separately in electronic format with the GIS layers, which includes a description for each shapefile as well as the geometry (polygon, or point) and the source. The following GIS layers are provided separately in electronic format:

- GIS layers for all data presented in Attachment 4.4-A: Biological Technical Report

construction, SDG&E will confirm that the total temporary impacts based on the final work area dimensions do not exceed the overall Proposed Project impacts presented in the PEA. Any changes to workspace dimensions during the final design will not result in new impacts to any sensitive resources without authorization from the corresponding resource agency. Furthermore, SDG&E will submit a Minor Project Refinement request to the CPUC should the total revised temporary impact exceed the overall Proposed Project estimate.

ATTACHMENT A: CITY OF CHULA VISTA MEETING MINUTES



Minutes – Salt Creek and TL 649 Status update with City of Chula Vista officials



Purpose:

Provide an update on the following projects in the Chula Vista area: Salt Creek, TL 649, and South Bay. Separate handouts were created for Salt Creek & TL 649. Copies of the handouts and fact sheets (for Salt Creek & TL 649) were left with the Mayor and each Councilmember who attended.

Official - Meeting Date & Time	Comments	Action Items
Councilwoman P. Aguilar 8/13/15 2:00p	TL 649: <ul style="list-style-type: none"> • Asked about undergrounding – it was explained that we didn't choose this option because of cost & environmental impact. • Was concerned about shiny poles – we explained these would be dull galvanized. • Suggested that we meet with the Otay River Valley Park (ORVP) Joint Exercise of Powers Agreement (JEPA) agency • Requested that we do a better job of meeting with City staff prior to filing with the CPUC. • Requested support in expediting request for 480V power supply (future ice rink). Salt Creek: <ul style="list-style-type: none"> • Asked if this could be a project in which the cost is spread out over the state – we explained that this doesn't qualify as a TAC expense. 	<ul style="list-style-type: none"> • Andy to provide simulations for Salt Creek to Todd to provide to Councilwoman Aguilar • Todd to follow up with the ORVP JEPA agency on TL 649 • Todd to follow up on request for 480V power supply
Mayor M. Salas 8/13/15 2:45p	<ul style="list-style-type: none"> • No specific comments or concerns on either project 	<ul style="list-style-type: none"> • none
Councilwoman P. Bensoussan 8/13/15 3:30p	TL 649: <ul style="list-style-type: none"> • no specific comments/concerns Salt Creek: <ul style="list-style-type: none"> • Concern over 230/12 kV alternative expressed – much more visually prominent. The councilwoman said she'd send a letter to the CPUC. 	<ul style="list-style-type: none"> • Andy to provide simulations for Salt Creek to Todd to provide to Councilwoman Bensoussan
Councilman S. Miesen 8/18/15 3:15p	Cancelled at the last minute – no meeting occurred	<ul style="list-style-type: none"> • none
Councilman J. McCann 8/18/15 4:00p	TL 649: <ul style="list-style-type: none"> • Wanted to ensure that the projects accounted for the future growth of Chula Vista 	<ul style="list-style-type: none"> • none



A Sempra Energy utility

South Bay Project Status Meeting
Chula Vista Councilwoman Pat Aguilar
Thursday, August 13, 2015
2:00 pm – 2:30 pm
276 Fourth Avenue, Chula Vista

Projects – TL 649, Salt Creek Substation and South Bay Substation Relocation

Attendees:

- Andy Renger
- Debbie Collins
- Eden Nguyen

- Todd Voorhees
- Claudia Valenzuela

- Other Erika Insiguita
- Other _____

Agenda

1. **Welcome and introductions** – Todd or Claudia

2. **TL 649** – Andy and Project Team

- a. Brief overview
- b. Schedule
- c. Outstanding Issues/Asks/Concerns
- d. Construction activities
- e. Outreach

W-S
field PTC on 8/10
why not U/G?
how much in city of CV
**ORR/JPA - need to meet w/ them **
~20-30' higher - concerned w/ shiny steel poles
like dull + dark
requestd meet w/ city stuff prior to submit to CVC.
(bad to take from S. Bay - but talk to city before file PTC)

3. **Salt Creek Substation** – Andy and Project Team

- a. Brief overview
- b. Schedule
- c. Outstanding Issues/Asks/Concerns
- d. Construction activities
- e. Outreach

4. **South Bay Substation Update** – Todd

5. **Wrap Up/Q&A/Follow up Items** – Project Team



A Sempra Energy utility

South Bay Project Status Meeting
Chula Vista Mayor Mary Salas
Thursday, August 13, 2015
2:45 pm – 3:15 pm
276 Fourth Avenue, Chula Vista

Albert _____ - her Assistant
Wally - her reserve day

Projects – TL 649, Salt Creek Substation and South Bay Substation Relocation

Attendees:

- | | | |
|---|---|--------------------------------------|
| <input type="checkbox"/> Andy Renger | <input type="checkbox"/> Todd Voorhees | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Debbie Collins | <input type="checkbox"/> Claudia Valenzuela | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Eden Nguyen | | |

Agenda

1. **Welcome and introductions** – Todd or Claudia

2. **TL 649** – Andy and Project Team
 - a. Brief overview
 - b. Schedule
 - c. Outstanding Issues/Asks/Concerns
 - d. Construction activities
 - e. Outreach

3. **Salt Creek Substation** – Andy and Project Team
 - a. Brief overview
 - b. Schedule
 - c. Outstanding Issues/Asks/Concerns
 - d. Construction activities
 - e. Outreach

4. **South Bay Substation Update** – Todd

5. **Wrap Up/Q&A/Follow up Items** – Project Team



A Sempra Energy utility

South Bay Project Status Meeting
Chula Vista Councilwoman Pamela Bensoussan
Thursday, August 13, 2015
3:00 pm – 3:30 pm
276 Fourth Avenue, Chula Vista

Projects – TL 649, Salt Creek Substation and South Bay Substation Relocation

Attendees:

- | | | |
|---|---|--------------------------------------|
| <input type="checkbox"/> Andy Renger | <input type="checkbox"/> Todd Voorhees | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Debbie Collins | <input type="checkbox"/> Claudia Valenzuela | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Eden Nguyen | | |

* ~~UG~~ Does not want 230 kV sub - will have City write a letter. Not like UG alt either.

Agenda

1. **Welcome and introductions** – Todd or Claudia
2. **TL 649** – Andy and Project Team
 - a. Brief overview
 - b. Schedule
 - c. Outstanding Issues/Asks/Concerns
 - d. Construction activities
 - e. Outreach
3. **Salt Creek Substation** – Andy and Project Team
 - a. Brief overview
 - b. Schedule
 - c. Outstanding Issues/Asks/Concerns
 - d. Construction activities
 - e. Outreach
4. **South Bay Substation Update** – Todd
5. **Wrap Up/Q&A/Follow up Items** – Project Team



A Semptra Energy[®] utility

South Bay Project Status Meeting
Chula Vista Councilmember John McCann
Tuesday, August 18, 2015
4:00 pm – 4:30 pm
276 Fourth Avenue, Chula Vista

Projects – TL 649, Salt Creek Substation and South Bay Substation Relocation

Attendees:

Andy Renger

Debbie Collins

Eden Nguyen

Todd Voorhees

Claudia Valenzuela

Other John McCann

Other _____

Agenda

1. **Welcome and introductions** – Todd or Claudia
2. **TL 649** – Andy and Project Team
 - a. Brief overview
 - b. Schedule
 - c. Outstanding Issues/Asks/Concerns
 - d. Construction activities
 - e. Outreach
3. **Salt Creek Substation** – Andy and Project Team
 - a. Brief overview
 - b. Schedule
 - c. Outstanding Issues/Asks/Concerns
 - d. Construction activities
 - e. Outreach
4. **South Bay Substation Update** – Todd
5. **Wrap Up/Q&A/Follow up Items** – Project Team

Tie Line 649 wood-to-steel replacement project



SDG&E® is committed to providing safe and reliable energy. To do this, we make improvements to our system, including replacing existing wood poles with new steel poles. These pole replacements are part of our overall effort to help improve the reliability and integrity of our electric system.

Did you know?

- SDG&E has already replaced almost 2,000 wood poles with new steel poles.
- Our fire mitigation efforts involve replacing wood poles and equipment in high-fire risk areas.
- During construction, we'll take care to minimize any environmental impacts.

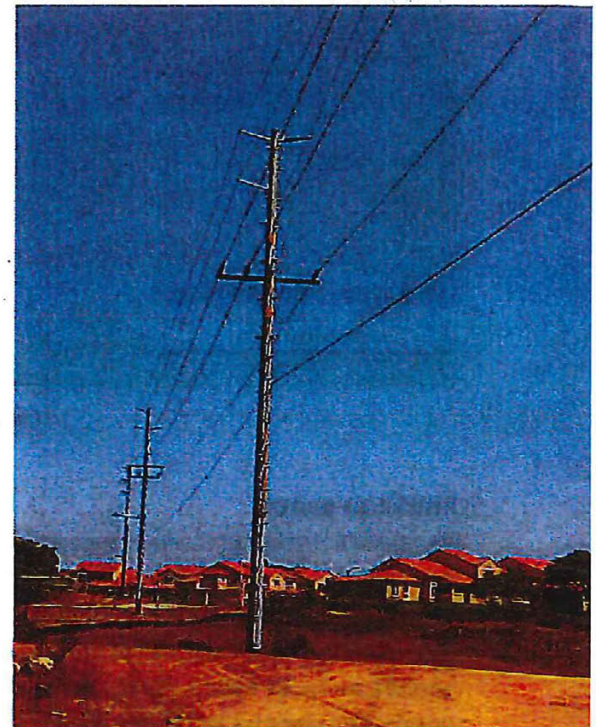
Our Community Fire Safety Program includes a number of reliability and safety measures during extreme weather conditions in high fire-risk areas. Wood-to-steel pole replacements are part of this effort. Other steps we're taking to improve reliability include increased inspections of our electric system and additional tree trimming.

What are the benefits?

- Enhanced safety and reliability of the transmission system;
- Improved electric system safety and performance during extreme weather conditions; and
- Reduced cost and environmental impacts for future maintenance activities.

About the project

This project of approximately seven miles will involve replacement of about 120 existing wood poles with fire-resistant new steel poles along a five-mile section from Black Coral Way and Sea Lavender Way, then south roughly two miles to just north of Otay Mesa Road.



Steel poles, like the one pictured here, will replace wooden poles in an area of Otay Mesa starting sometime after September 2016.

The new steel poles will be a galvanized material with a dull finish to reduce the potential for glare. Existing wood poles range in height from approximately 35 feet to 75 feet and are typically 20 inches in diameter. The replacement poles typically range in height from about 35 feet to 90 feet, with a diameter between 30 inches to 60 inches. The poles will be placed generally within 10 feet of the existing location. The existing wood poles will be removed once the new steel poles and equipment are in place.

Project schedule

Start date: Fourth quarter 2016

End date: Second quarter 2017

continued on back ▶



This map for illustration purposes only. Not to scale.

What to expect

The timeline is subject to change depending on project approval. During our pole replacement activities, it will take several months to install the new poles and complete the overhead conductor wire work as well as remove the existing poles. We'll make efforts to minimize disruptions such as construction traffic, dust, and noise. Our work may require us to turn off power for safety purposes. If so, we'll contact you in advance to help make sure you're prepared for a planned outage.

Contact information

For more information, please contact SDG&E at **1-800-411-7343**. You may also contact SDG&E's Major Projects Public Affairs Manager, Todd Voorhees at tvoorhees@semprautilities.com.



Planned upgrades for eastern Chula Vista



Did you know?

Chula Vista is the second largest city in the San Diego region. As of 2010, the population was almost 244,000. Growth has primarily been in the Inland Otay Valley area, east of I-805.

Our commitment to providing safe and reliable energy means making improvements to our system which include installing a new transmission line from the existing Miguel Substation to the new Salt Creek Substation in the Chula Vista area.

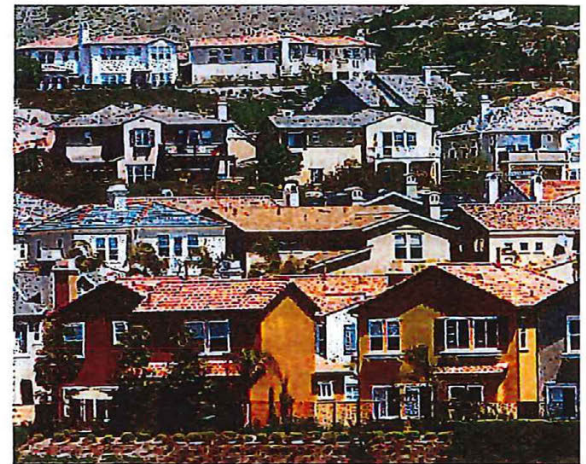
Overview

As part of an overall effort to improve the reliability, capacity and integrity of the electric system in the eastern part of Chula Vista, SDG&E® has filed a Permit to Construct application with the California Public Utilities Commission (CPUC) to:

- Build a new low-profile 69/12kV distribution substation in the eastern region of Chula Vista.
- Install a new five-mile long 69kV overhead power line in an existing power line corridor connecting an existing substation to the Salt Creek Substation.
- Connect an existing power line to the Salt Creek Substation to optimize system reliability and flexibility.

What are the benefits?

- Continue to safely and reliably deliver energy to the community.
- Meet the projected long-term increase in electricity use.



As new master planned communities were built over the last decade, rapid population growth followed. The upgrades that have been planned will help meet the projected long-term increase in electricity use by area residents and businesses.

About the project

The route for the new overhead power line will generally travel along SR-125 in an existing power line corridor to the new substation. The last approximately 1,000 feet of the new power line in the vicinity of the Salt Creek Substation would be installed underground. An existing power line will connect into the new Salt Creek Substation, requiring the installation of two new poles that are necessary to transition the power line underground. The new low-profile substation will be located east of the intersection of Hunte Parkway and Exploration Falls Drive in the community of Otay Ranch in Chula Vista. The upgrades will comply with the regulatory requirements of

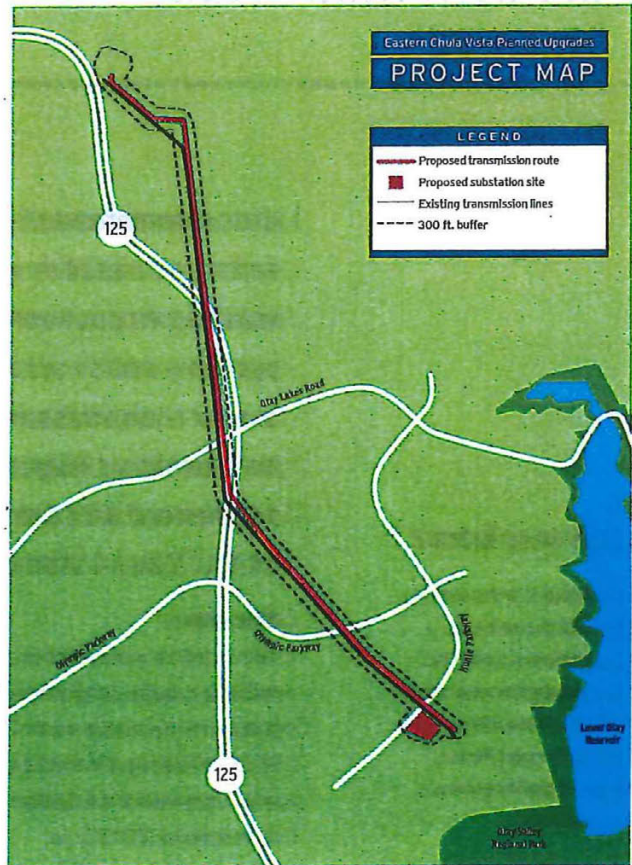
the North American Electric Reliability Corporation (NERC), Western Electric Coordinating Council (WECC), and California Independent System Operator (CAISO). The substation is anticipated to be in service by summer 2016 depending on when SDG&E receives approval for this project.

What to expect

Given that all approvals and permits are received per our current schedule, we estimate construction to begin in January 2015. The majority of the Salt Creek Substation construction will be within the substation property. Some of the work, such as trenching for underground cables, may require lane closures. SDG&E will work diligently to keep disruptions such as noise, dust, and construction traffic to a minimum as much as possible. Although not anticipated, our work may require us to shut-off power for safety purposes. SDG&E would notify residents in advance.

Additional information

Contact SDG&E Public Affairs Manager
Claudia Valenzuela at **1-858-654-8307**
or cvalenzuela@semprautilities.com.



South Bay Substation Relocation Project



The South Bay Substation Relocation Project was approved by the California Public Utilities Commission in October 2013 and by the California Coastal Commission in March 2014.

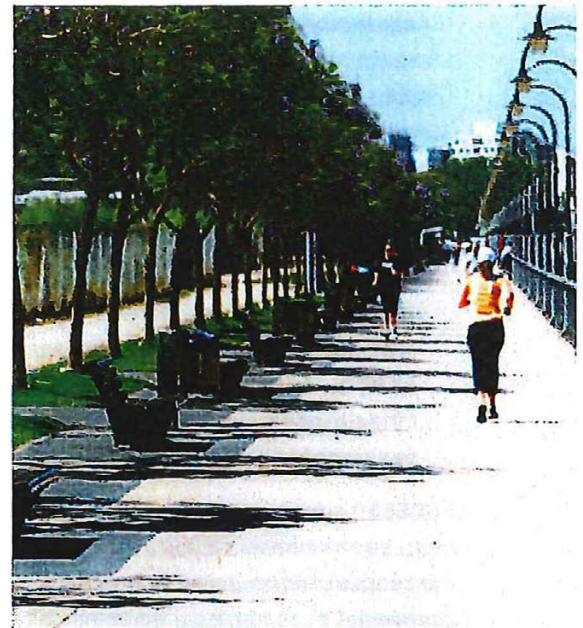
This project will improve current and future transmission and distribution needs for the South Bay area.

Did you know?

- This project facilitates the City of Chula Vista and Port of San Diego redevelopment goals by removing the existing substation from Chula Vista Bayfront Master Plan boundaries.
- Ensures regional electric transmission system reliability.
- Protects, restores and enhances coastal resources consistent with the California Coastal Act and the City's Local Coastal Program.

Main project components:

- **Construction of the new South Bay Substation Relocation Project.** This new state-of-the-art transmission substation is located on Bay Blvd., west of Interstate 5 between L and Palomar Streets. The new substation will help meet regional energy needs filling some of the void left with the retirement of the South Bay Power Plant.
- **Existing transmission lines put underground.** Project plans include the relocation and reconfiguration of existing 230/138/69kV lines along the existing transmission corridor to either loop-in to or bypass the new substation (includes undergrounding approx. 3,800 feet of 138kV lines and approximately 1,000 feet of 230kV lines). We'll also remove five lattice transmission towers along the Chula Vista Bayfront.
- **Demolition of the existing South Bay Substation.** Final phases of the project include the decommissioning and demolition of an existing decades-old 138/69kV substation and transmission



Removing the old substation and associated facilities, helps with Chula Vista's Bayfront redevelopment goals.

facilities located on 17 acres adjacent to the former South Bay Power Plant. Demolition will occur after the new South Bay Substation is energized.

- **Environmental benefits.** The environmental benefits associated with this project include the restoration of approximately 10 acres within San Diego Bay national Wildlife Refuge that will create and enhance habitat for endangered wildlife. Removal of the old substation and undergrounding of existing overhead electric transmission lines will improve bay views. Additionally, project mitigation will create a \$2,000,000 endowment for the Living Coast Discovery Center (formerly Chula

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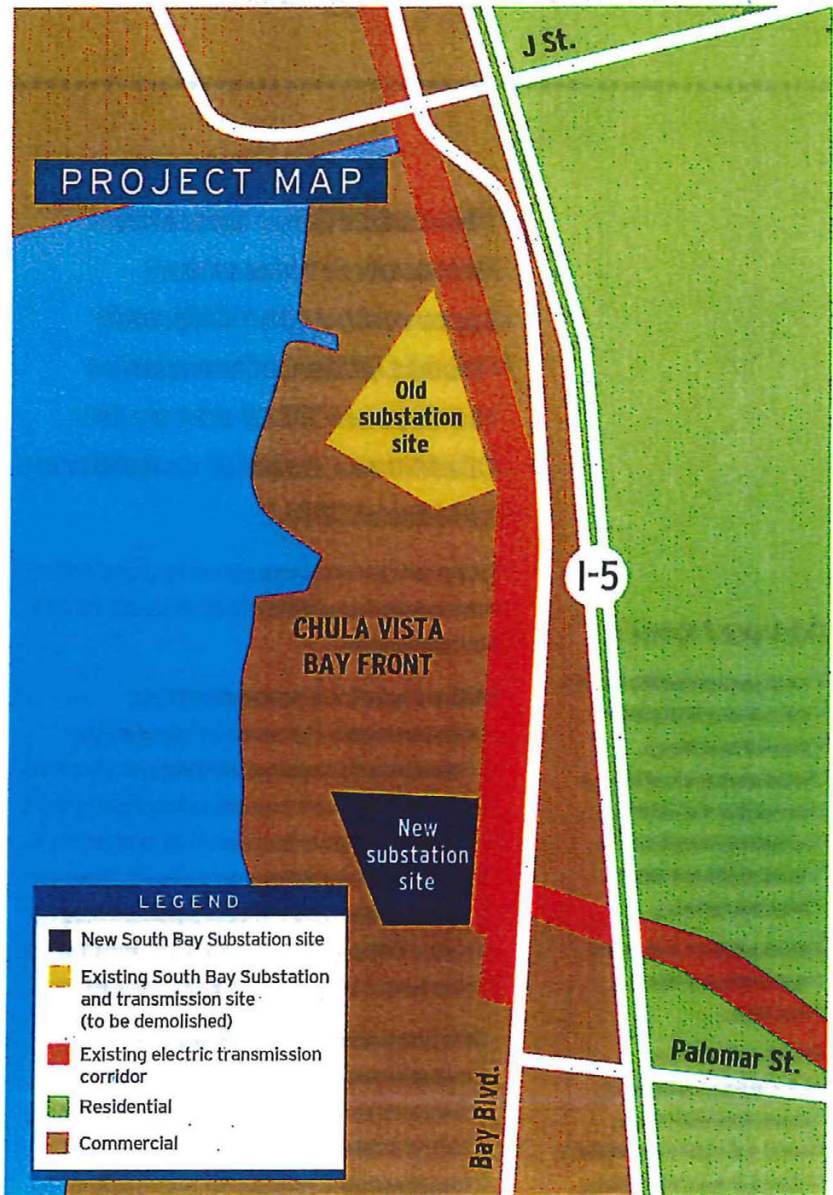
► Vista Nature Center) to ensure that the Center's environmental education programs will continue for the benefit of San Diego County residents and visitors.

- **Construction schedule.** This project has several construction phases. The first phase will be the construction of the new substation which is anticipated to begin in the first quarter of 2015 with completion expected in the first quarter of 2016. The second phase includes the relocation and reconfiguration of transmission facilities and that work is anticipated to be completed by the end of 2016. The final phase, the demolition of the existing substation, is estimated to be complete by the end of 2017.

SDG&E® is working closely with community groups and interested parties to help minimize construction impacts on neighboring communities and to keep the community informed during construction.

Contact information

For more information, please contact SDG&E at 1-844-765-6388. You may also contact SDG&E's Public Affairs Manager, Todd Voorhees at tvoorhees@semprautilities.com.





San Diego Gas & Electric Company Tie Line 649 Wood-to-Steel Replacement Project

Project Overview and Update with the City of Chula Vista officials
August 2015

Project Overview

- **Purpose**

- Increase system reliability by replacing approximately 7 mile portion of an existing wood pole power line with new steel poles in a fire-prone area

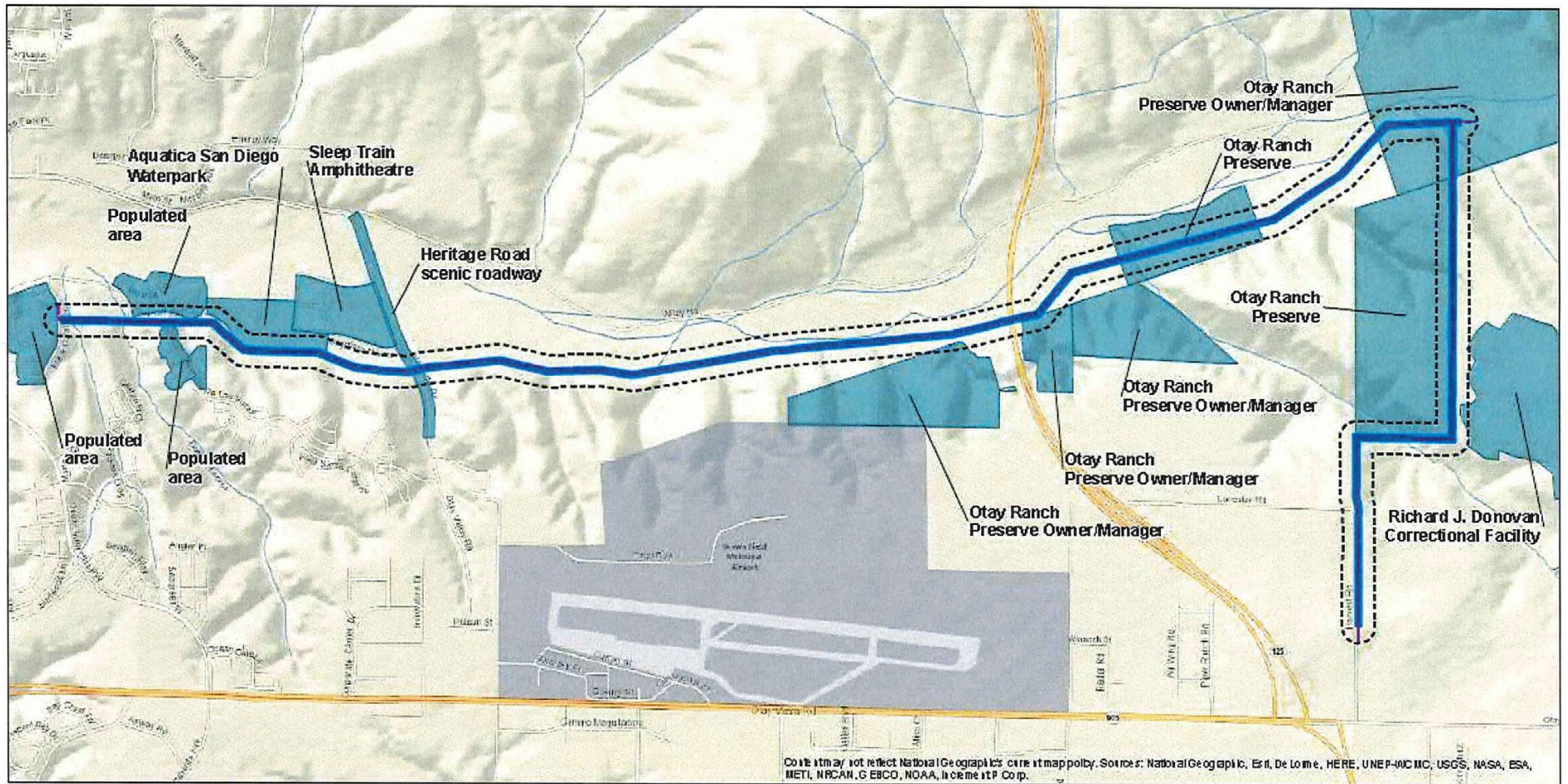
- **Project Components**

- Remove approximately 132 existing wood poles and replace with approximately 117 galvanized steel poles
- Transfer existing 69 kilovolt (kV) conductors *(not reconductors) - will reconducter distribute*
- Reconductor or transfer existing underbuilt 12 kV conductors
- Convert approximately 430 feet of underground power line to overhead configuration
- Modify of existing access roads in four locations

- **Estimated Schedule**

Activity	Estimated Date
Permit to Construct Application Filed	August 10, 2015 (complete)
Estimated Construction Start	September 2016 ~ 2017
Targeted In Service Date	March 2017 ~ 2018

Project Map





San Diego Gas & Electric Company Salt Creek Substation Project

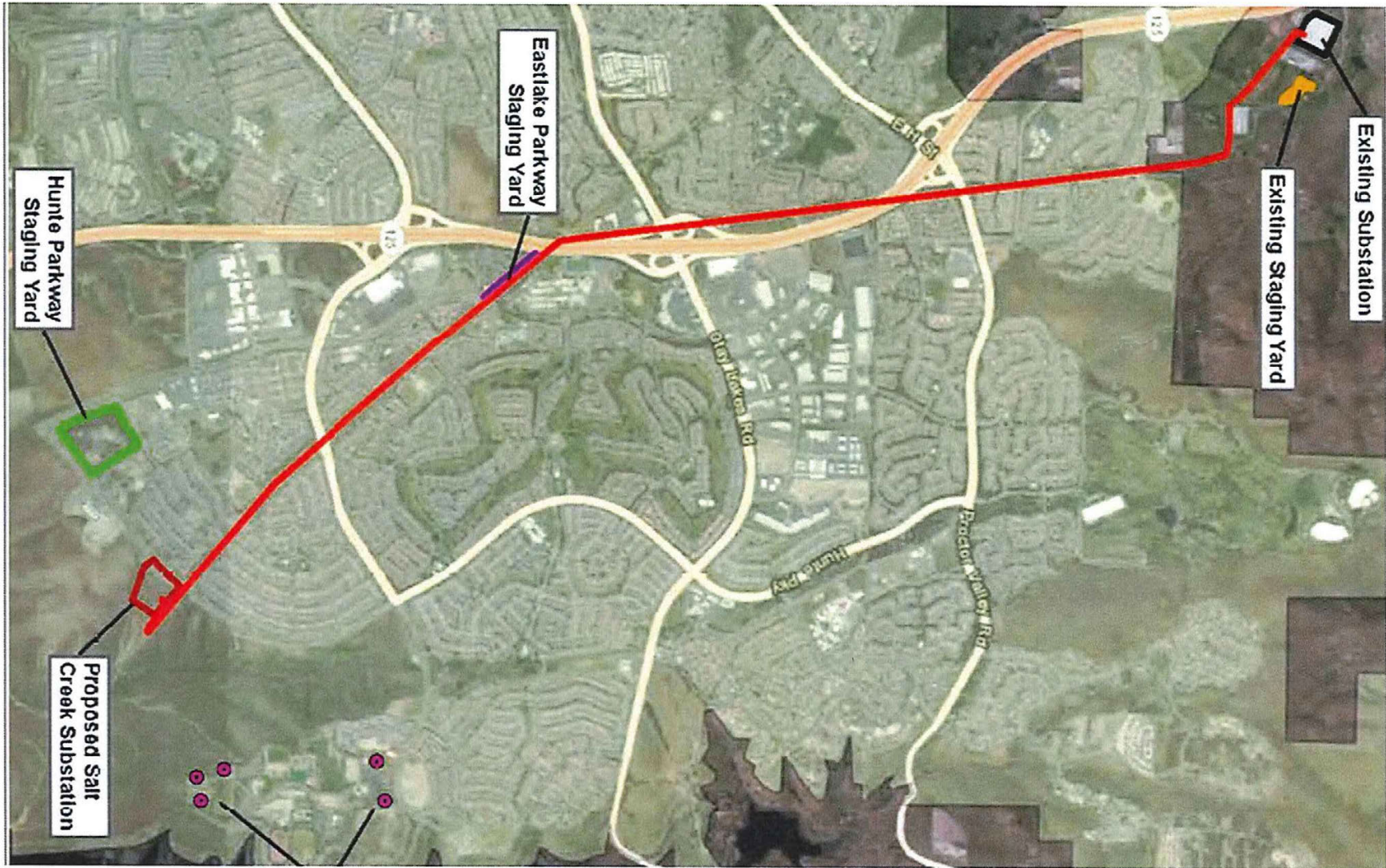
Project Overview and Update with the City of Chula Vista officials
August 2015

Project Overview

- **Purpose**
 - To accommodate future load growth and maintain reliable electrical service in eastern Chula Vista.
- **Proposed Project Components**
 - Construct a new low-profile 69 kV/12kV Substation.
 - Install a new 69kV power line from Salt Creek to Miguel Substation.
 - Connect an existing power line to the new Salt Creek substation.
- **CPUC Project Alternatives**
 - No project
 - Proposed 69/12kV substation without new power line (utilize Border generation)
 - 230/12kV standard height substation without a new power line
 - Proposed 69/12kV substation with an underground new power line
- **Estimated Schedule**

Activity	Estimated Date
Final EIR/CPUC Decision	August 2015/November 2015
Estimated Construction Start	1 st Quarter 2016
Targeted In Service Date	July 2017

Project Map



Renger, Andy

From: Renger, Andy
Sent: Wednesday, October 07, 2015 4:11 PM
To: Voorhees, Todd
Cc: Valenzuela, Claudia; Mapula Garcia, Vanessa A; Nguyen, Eden T.; Collins, Debbie; Quijano, Jennifer M; Huber, Matt
Subject: RE: CV Meeting Agenda_Miesen
Attachments: SDGE Salt Creek CV Meeting Presentation ver5Oct2015.pptx; SDGE TL 649 CV Meeting Presentation ver6Aug2015.pdf

The meeting was short and it went fine. Cameron Celeste (Council Representative) and Jason Paguio (Policy & Outreach Advisor) attended in addition to Councilmember Miesen. At first there was confusion over where TL649 is located and Mr. Miesen was asking why not underground the line; once he understood it wasn't right next to Main St. he retracted his question. For Salt Creek he asked if we considered screening (like ivy or the like on the walls) to make it blend more with the terrain. I explained that while the elevation drop helps us reduce the visual impact from the residences across Hunte Pkwy it does allow one to look down into the sub when on the sidewalk right above the pad and thus screening may not be as beneficial as one might think. There weren't any take-aways from the meeting and overall I felt it went well.

Jennifer – feel free to weigh in...

Thanks!

Andy Renger
San Diego Gas & Electric Company
Project Manager, Major Projects
office 858.654.1835 fax 858.637.3770 cell 619.764.9049
ARenger@SempraUtilities.com

From: Voorhees, Todd
Sent: Tuesday, October 06, 2015 11:55 AM
To: Renger, Andy; Nguyen, Eden T.; Collins, Debbie; Quijano, Jennifer M
Cc: Valenzuela, Claudia; Mapula Garcia, Vanessa A
Subject: CV Meeting Agenda_Miesen

We are still scheduled to meet with Councilmember Miesen today at 430pm. (Agenda Attached)

It appears, it's the Jennifer and Andy show this afternoon.

Debbie is working on SX-PQ EIR and will not be attending as I was scheduled an interview to replace Martha that concludes at 430, so I would now not be able to get down there in time.

Jennifer Quijano will go in my place (She worked for Mayor Cox) so is very familiar with the CV Council and politics, so the team is in capable hands. She can make the introductions and respond to any South Bay issues and Andy can conduct the Salt Creek and TL presentations as in the past.

Jenifer will also bring project fact sheets for the three projects.

I think we are fine moving forward with the meeting as I don't anticipate any major issues or concerns from it.

Please let me know if you have any questions. And, again, thanks everyone for being flexible with the scheduling of this.

Todd

ATTACHMENT B: ADDITIONAL CONSTRUCTION EQUIPMENT

ATTACHMENT B: ADDITIONAL CONSTRUCTION EQUIPMENT
--

Activity	Equipment	Duration of Use
Existing Pole Removal	1 Chainsaw	2 hours per day; 2 to 3 poles per day
Dewatering (Micro-pile Foundation Construction, Pier Foundation Construction, Direct-Bury Construction and Pole Installation, and Trenching for Installation of Underground Cables phases)	1 Submersible Pump	2 hours per day
Pier Foundation Construction	1 Backhoe	7 hours per day
Guy Wire Installation (Direct-Bury Construction and Pole Installation phase)	1 Backhoe	7 hours per day
Access Road Modifications (Staging Yard Setup/Road Reestablishing phase)	1 Crew Truck	5 hours per day
	1 Skid Steer	5 hours per day
Blasting	1 Backhoe	7 hours per day

ATTACHMENT C: PROPOSED CONSTRUCTION SCHEDULE

ATTACHMENT C: PROPOSED CONSTRUCTION SCHEDULE

Activity	Approximate Duration (days per site)	Total Duration of Activity (days)	Total Number of Workers
Staging yard set-up/Road refreshing/Vegetation trimming/SWPPP Best Management Practice Installation	Not Applicable (NA)	6	5
Road Modifications (widening)	1	4	3
Micro-Pile Foundation Construction	5 to 10	40	10
Pier Foundation Construction	6	63	10
Direct-Buried Construction and Pole Installation	3	90	15
Trenching for Installation of Underground Cables	1 day for 20-ft long trench at Pole 18.5 3 days for 100-ft long trench between Poles 25 and 26	3	3 to 4
Guard Structures at Heritage Road	1	2	4 to 5
Blasting ¹	2	NA	2
Stringing Activities (General site anywhere along the alignment)	3	60	10 to 15
Stringing Activities near Pole 1	3	NA	3 to 4
Stringing Activities near Pole 10	3	NA	3 to 4
Stringing Activities near Pole 11	3	NA	3 to 4
Stringing Activities near Pole 18.1	3	NA	3 to 4
Stringing Activities near Pole 18.3	3	NA	3 to 4
Stringing Activities near Pole 18.5	3	NA	3 to 4
Stringing Activities near Pole 22	3	NA	3 to 4
Stringing Activities near Pole 23	3	NA	3 to 4

¹ The information provided for blasting is based on typical conditions, which could vary based on the site conditions, type of rock, and amount of rock.

Activity	Approximate Duration (days per site)	Total Duration of Activity (days)	Total Number of Workers
Stringing Activities near Pole 97 (north, east west)	3	NA	3 to 4
Pulling Sites	3	3	3 to 4
Existing Pole Removal ²	0.5	60	4 to 6
Transfer conductor/Sagging Activities ³	NA	NA	NA
Demobilization/Clean Up/Road refreshing	NA	26	5 to 6
Revegetation ⁴	NA	26	2 to 4

² Existing pole removal may not happen simultaneously, depending on contractor strategy to complete the Proposed Project and removal of third-party telecommunications facilities.

³ The transfer conductor/sagging activities are accounted for under the stringing activity due to construction methods.

⁴ Revegetation is accounted for under the demobilization/clean up/road refreshing activity.

**ATTACHMENT D: GUY, ANCHOR, AND GROUNDING ROD REPRESENTATIVE
PHOTOGRAPHS AND DRAWINGS**

ATTACHMENT D: GUY, ANCHOR, AND GROUNDING ROD REPRESENTATIVE PHOTOGRAPHS AND DRAWINGS



Representative Photograph of a Guy

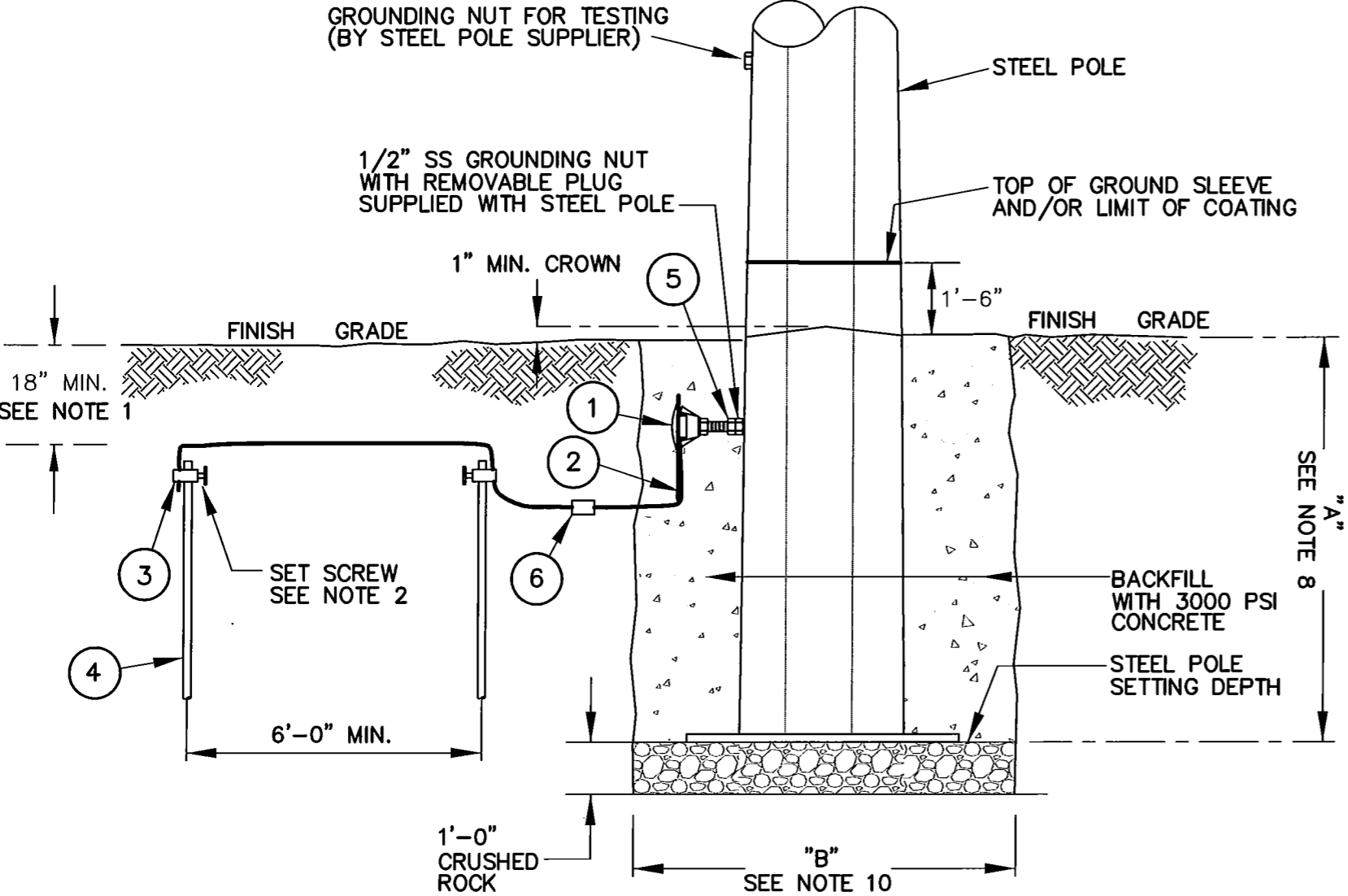


Representative Photograph of an Anchor

BILL OF MATERIAL			
ITEM	QTY	STOCK NO. OR DWG. NO.	DESCRIPTION
1	2	730464	GROUNDING LUG, BRONZE, LONG STUD
2	20'	813056	WIRE, #2 SOLID, COPPERWELD
3	2	230016	GROUND ROD CLAMP
4	2	603072	GROUNDING ROD, COPPERWELD, 5/8" x 8'
5	1	505536	NUT, 1/2", SS
6	1	257792	CONNECTOR, COMPRESSION

NOTES:

- ROD & WIRE DEPTH SHALL BE 6" MIN. UNDER CONCRETE OR FINISHED GRADE, 18" FOR OPEN GROUND & 4' MIN. IN AREAS SUBJECT TO PLOWING.
- SET SCREWS SHALL TIGHTEN AGAINST GROUND ROD & NOT AGAINST THE GROUND WIRE.
- 3' MINIMUM LENGTH OF #2 BARE COPPERWELD TO BE COILED OUTSIDE OF BACKFILLS. COIL TO BE BURIED AT A MINIMUM DEPTH OF 18".
- CARE SHALL BE EXERCISED TO AVOID DAMAGING THE GROUNDWIRE AND CONNECTOR DURING THE BACKFILLING OPERATION.
- ANY UNUSUAL SOIL CONDITION FOUND AT THE POLE SITE DURING EXCAVATION SHALL BE REPORTED TO CIVIL/STRUCTURAL ENGINEERING FOR APPROVAL PRIOR TO CONSTRUCTION.
- ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF SDG&E SPECIFICATION TE-0105 (LATEST EDITION). READY MIX CONCRETE SHALL CONFORM TO SECTION 5.2, EXCEPT AS MODIFIED HEREIN, FOR PLACEMENT INTO A DRY AUGURED HOLE.
- CONCRETE SHALL HAVE A MINIMUM ULTIMATE STRENGTH OF 3,000 PSI AT 28 DAYS UNLESS AS OTHERWISE NOTED, AND SHALL BE APPROVED BY SDG&E CIVIL/STRUCTURAL ENGINEERING REPRESENTATIVE.
- CONCRETE SHALL BE PLACED AGAINST UNDISTURBED SOIL THROUGHOUT THE "A" DEPTH. THE EMBEDMENT "A" DEPTH SHALL BE AS SHOWN FOR EACH POLE IN THE PROJECT JOB PACKAGE.
- CONCRETE SHALL BE 6'-7" SLUMP IN ORDER TO FLOW INTO THE ANNULUS SPACE ADEQUATELY WITHOUT VIBRATION. MECHANICAL VIBRATION SHALL NOT BE USED.
- 1' ANNULUS IS REQUIRED AROUND POLE BASE WHICH EQUATES TO MAXIMUM POLE SHAFT DIAMETER PLUS 2 FEET.



REV	CHANGE	BY	CHKD	APPV	DATE	REV	CHANGE	BY	CHKD	APPV	DATE	TRANSMISSION ENGINEERING		SCALE:	NONE	
B	ADDED EMBEDMENT DETAIL	LLD	RER/TS	DW	9/29/10								DIRECT EMBEDDED		DWG. NO.	SHT. NO.
A	BACKFILL DETAIL	LLD	JES	DW	9/07/10								STEEL POLE		17136	1 of 1
	ORIGINAL	LLD	WPH	GAA	9/18/08	C	ADDED CIVIL NOTES	LLD	RER/TS			PLACEMENT & GROUNDING DETAILS				

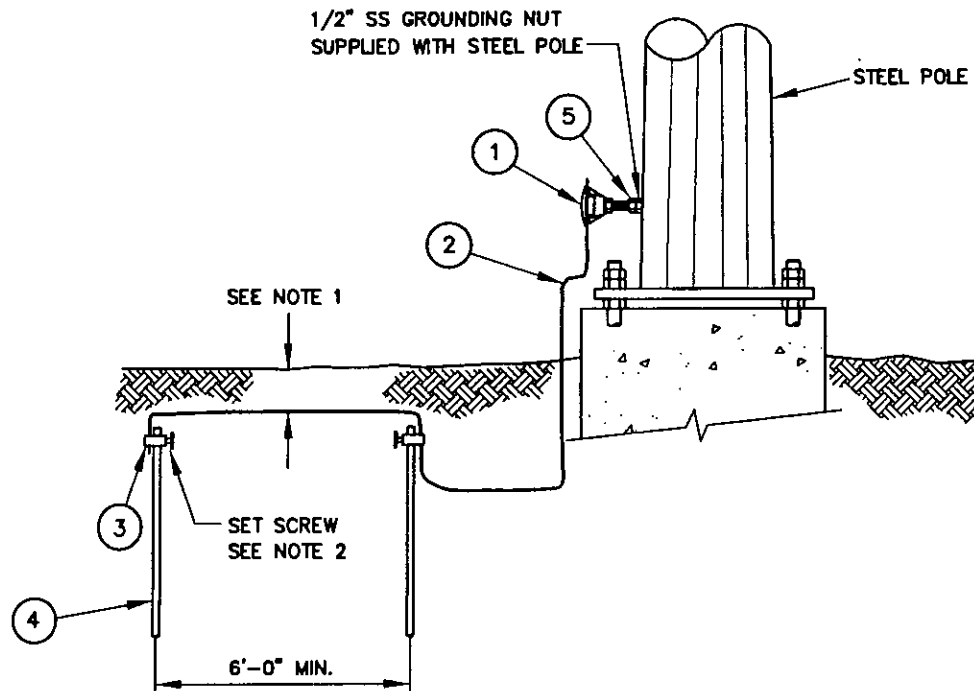


BILL OF MATERIAL

ITEM	QTY	STOCK NO. OR DWG. NO.	DESCRIPTION
1	2	730464	GROUNDING LUG, BRONZE, LONG STUD
2	20'	813056	WIRE, #2 SOL, COPPERWELD
3	2	230016	GROUND ROD CLAMP
4	2	603072	GROUNDING ROD, COPPERWELD, 5/8" x 8'
5	1	505536	NUT, 1/2", SS

NOTES:

1. ROD & WIRE DEPTH SHALL BE 6" MIN. UNDER CONCRETE OR FINISHED GRADE, 18" FOR OPEN GROUND & 4' MIN. IN AREAS SUBJECT TO PLOWING.
2. SET SCREWS SHALL TIGHTEN AGAINST GROUND ROD & NOT AGAINST THE GROUND WIRE.



C							
B							
A							
		ORIGINAL	WF	SAG	WPH	5/30/02	
REV	BUDGET	CONST	ORDER	CHANGE	DRAWN	CHK'D	APP'D

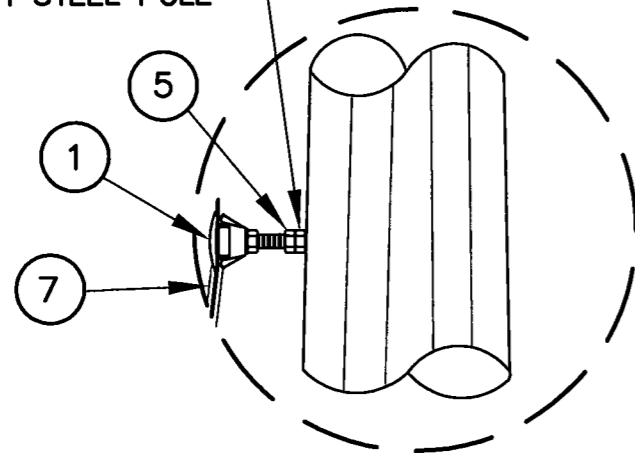
SDGE SAN DIEGO GAS & ELECTRIC
TRANSMISSION ENGINEERING

STEEL POLE
GROUNDING DETAILS

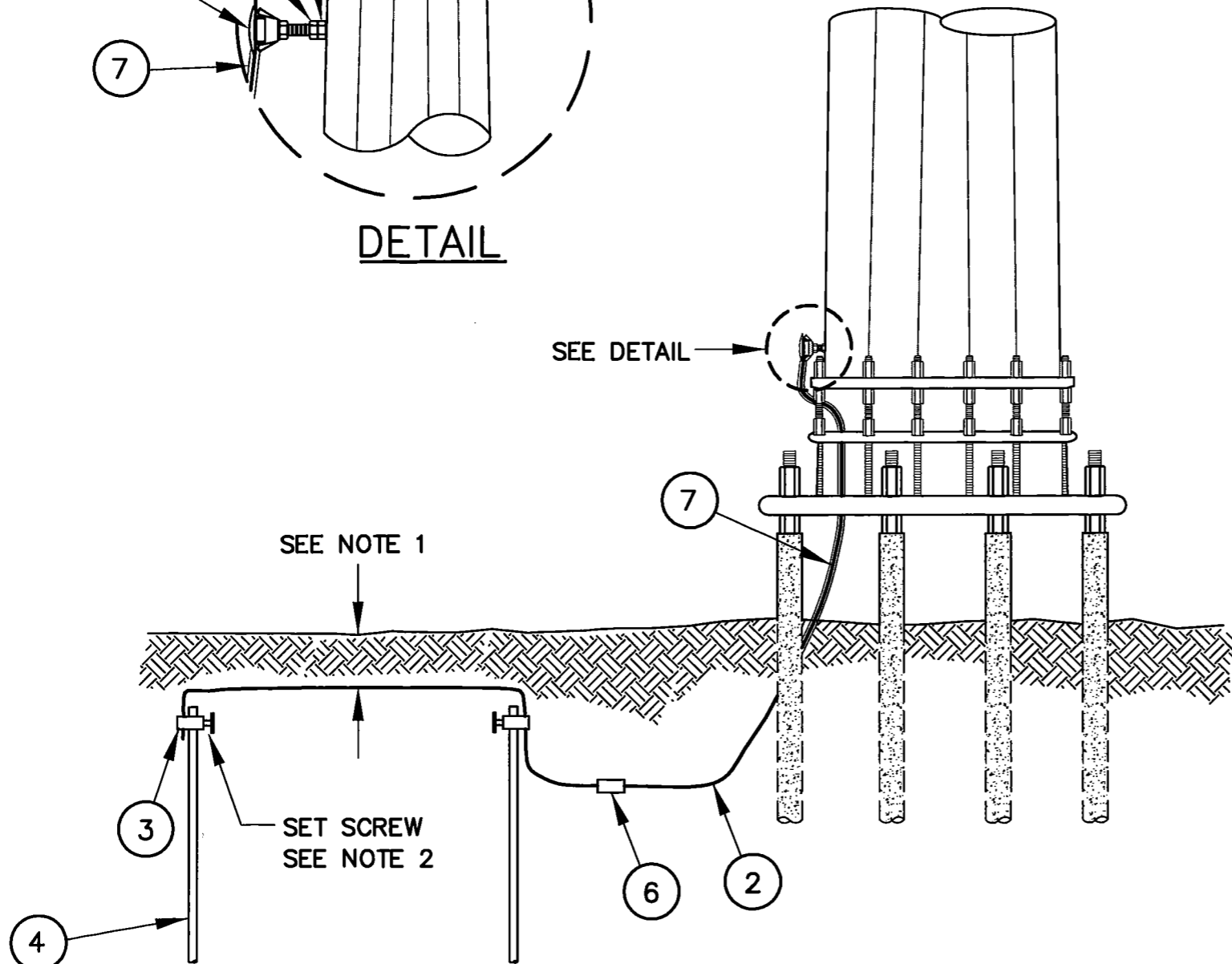
SCALE: NONE SHEET 1 OF 1

17135

1/2" SS GROUNDING NUT
SUPPLIED WITH STEEL POLE



DETAIL



PLAN VIEW

BILL OF MATERIAL

ITEM	QTY	STOCK NO. OR DWG. NO.	DESCRIPTION
1	2	730464	GROUNDING LUG, BRONZE, LONG STUD
2	20'	813056	WIRE, #2 SOL, COPPERWELD
3	2	230016	GROUND ROD CLAMP
4	2	603072	GROUNDING ROD, COPPERWELD, 5/8" x 8'
5	1	505536	NUT, 1/2", SS
6	1	257792	CONNECTOR COMPRESSION
7	10'	252010	1/2" SEAL TIGHT FLEX CONDUIT

NOTES:

1. ROD AND WIRE DEPTH SHALL BE 6" MINIMUM BELOW BOTTOM OF CONCRETE OR ASPHALT, 18" MINIMUM FOR OPEN GROUND, AND 48" MINIMUM IN AREAS SUBJECT TO PLOWING.
2. SET SCREWS SHALL TIGHTEN AGAINST GROUND ROD & NOT AGAINST THE GROUND WIRE.
3. 3' MINIMUM LENGTH OF #2 BARE COPPERWELD TO BE COILED OUTSIDE OF BACKFILLS. COIL TO BE BURIED AT A MINIMUM DEPTH OF 18".
4. INSTALL FLEX CONDUIT SNUG AGAINST GROUNDING LUG NOT EXCEEDING A 3.5" BENDING RADIUS.
5. ANY UNUSUAL SOIL CONDITION FOUND AT THE POLE SITE DURING EXCAVATION SHALL BE REPORTED TO CIVIL/STRUCTURAL ENGINEERING FOR APPROVAL PRIOR TO CONSTRUCTION.
6. MICROPILES SHALL PASS PROOF LOADING REQUIREMENTS AND MINIMUM 3 DAYS FROM GROUT PLACEMENT BEFORE TRANSITION PLATE AND POLE CAN BE SET AND GROUNDING ASSEMBLY ATTACHED AS SHOWN. POLE MAY BE LOADED WITH CONDUCTORS AFTER MICROPILES PASS PROOF LOADING REQUIREMENTS AND MINIMUM 7 DAYS FROM GROUT PLACEMENT.

										TRANSMISSION ENGINEERING			SCALE: NONE			
										SDGE			MICROPILE STEEL POLE PLACEMENT & GROUNDING DETAILS		DWG. NO. 17137	SHT. NO. 1 of 1
ORIGINAL	LLD	BY	CHKD	APPV	DATE	REV	CHANGE	BY	CHKD				APPV	DATE		
REV	CHANGE	BY	CHKD	APPV	DATE	REV	CHANGE	BY	CHKD	APPV	DATE					

ATTACHMENT E: REVISED CONSTRUCTION EMISSIONS

ATTACHMENT E: REVISED CONSTRUCTION EMISSIONS

As described in response to Question 12, the California Emissions Estimator Model (CalEEMod) simulation was rerun to account for the changes to the project that were made to address questions raised as part of Data Request 01. Table E-1: Peak Daily Construction Emissions and Table E-2: Proposed Project Greenhouse Gas Construction Emissions presents the revised emissions associated with the updated simulation. The CalEEMod input file is submitted separately in Microsoft Excel format and the resulting output reports are included as Attachment F: Revised CalEEMod Output Report.

Table E-1: Peak Daily Construction Emissions

Year	Emissions (pounds per day)					
	PM _{2.5}	PM ₁₀	NO _x	SO _x	CO	VOC
2016	10.64	58.21	123.91	0.18	67.43	11.07
2017	6.45	46.41	50.47	0.08	30.46	4.51
Threshold	55	100	250	250	550	75
Threshold Exceeded?	No	No	No	No	No	No

Table E-2: Proposed Project Greenhouse Gas Construction Emissions

Category	Greenhouse Gas Emissions (metric tons)		
	CO ₂	CH ₄	N ₂ O
Total Construction Emissions	791.74	0.17	0.00
Global Warming Potential	1	21	310
CO ₂ e	791.74	3.57	0.00
Total CO ₂ e	795.31		
Applicable Threshold	2,500		
Threshold Exceeded?	No		

ATTACHMENT F: REVISED CALEEMOD OUTPUT REPORT

TL649 Wood-to-Steel
San Diego County, Annual

1.0 Project Characteristics

1.1 Land Usage

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2017
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Because the existing line is being rebuilt, no land use types have been entered.

Construction Phase - Construction schedule taken from Chapter 3 - Project Description

Off-road Equipment - Construction equipment taken from Attachment 3-D

Off-road Equipment - Construction equipment taken from Attachment 3-D

Off-road Equipment - Default values set to a quantity of zero. Equipment taken from Chapter 3 - Project Description.

Off-road Equipment - Construction equipment taken from Attachment 3-D

Off-road Equipment - Construction equipment taken from Attachment 3-D

Off-road Equipment - Construction equipment taken from Attachment 3-D

Off-road Equipment - Defaults set to zero.

Off-road Equipment - Construction equipment taken from Attachment 3-D

Off-road Equipment - Defaults set to zero.

Trips and VMT - Values calculated based upon data in Chapter 3 - Project Description

On-road Fugitive Dust - Assume that all worker trips are paved. Assume that 80 percent of vendor and hauling miles are paved.

Grading - A maximum of 9.7 acres per day will be disturbed during the staging yard development/access road improvement process and restoration.

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	184.00
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tblConstructionPhase	NumDays	0.00	6.00
tblConstructionPhase	NumDays	0.00	40.00
tblConstructionPhase	NumDays	0.00	63.00
tblConstructionPhase	NumDays	0.00	90.00
tblConstructionPhase	NumDays	0.00	26.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00

tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
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tblConstructionPhase	PhaseEndDate	6/15/2017	11/19/2016
tblConstructionPhase	PhaseEndDate	2/1/2017	12/16/2016
tblConstructionPhase	PhaseEndDate	3/31/2017	1/17/2017
tblConstructionPhase	PhaseEndDate	4/28/2017	4/29/2017
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tblGrading	MaterialExported	0.00	898.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00

tbloffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
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tbloffRoadEquipment	PhaseName		Direct Bury and Pole Installation
tbloffRoadEquipment	PhaseName		Micropile Foundation Construction
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tbloffRoadEquipment	PhaseName		Demobilization/Cleanup
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tbloffRoadEquipment	PhaseName		Micropile Foundation Construction

tblOffRoadEquipment	PhaseName		Pier Foundation Construction
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tblTripsAndVMT	HaulingTripNumber	112.00	210.00
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2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.3570	4.0232	2.2136	5.7000e-003	5.3060	0.1738	5.4798	0.5397	0.1631	0.7028	0.0000	521.2202	521.2202	0.1135	0.0000	523.6045
2017	0.1811	2.0288	1.2255	3.0500e-003	2.7994	0.0835	2.8829	0.2897	0.0772	0.3669	0.0000	270.5219	270.5219	0.0564	0.0000	271.7063
Total	0.5380	6.0520	3.4391	8.7500e-003	8.1053	0.2573	8.3627	0.8294	0.2403	1.0697	0.0000	791.7421	791.7421	0.1699	0.0000	795.3108

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.3570	4.0232	2.2136	5.7000e-003	1.5063	0.1738	1.6801	0.1604	0.1631	0.3235	0.0000	521.2197	521.2197	0.1135	0.0000	523.6041
2017	0.1811	2.0288	1.2255	3.0500e-003	0.8170	0.0835	0.9005	0.0918	0.0772	0.1690	0.0000	270.5217	270.5217	0.0564	0.0000	271.7061
Total	0.5380	6.0520	3.4391	8.7500e-003	2.3233	0.2573	2.5806	0.2521	0.2403	0.4925	0.0000	791.7414	791.7414	0.1699	0.0000	795.3101

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	71.34	0.00	69.14	69.60	0.00	53.96	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Staging Yard Setup	Site Preparation	9/28/2016	10/4/2016	6	6	Staging Yard Setup
2	Worker Commute/Water Import	Building Construction	9/28/2016	4/29/2017	6	184	Worker Commute/Water Import
3	Micropile Foundation Construction	Site Preparation	10/5/2016	11/19/2016	6	40	Micropile Foundation Construction
4	Pier Foundation Construction	Site Preparation	10/5/2016	12/16/2016	6	63	Pier Foundation Construction
5	Direct Bury and Pole Installation	Site Preparation	10/5/2016	1/17/2017	6	90	Direct Bury and Pole Installation
6	Trenching for Underground	Trenching	1/18/2017	1/20/2017	6	3	Trenching for Underground
7	Stringing Activities	Building Construction	1/19/2017	3/29/2017	6	60	Stringing Activities
8	Demobilization/Cleanup	Site Preparation	3/31/2017	4/29/2017	6	26	Demobilization/Cleanup

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Staging Yard Setup	Graders	2	5.00	174	0.41
Staging Yard Setup	Off-Highway Trucks	2	4.00	400	0.38
Staging Yard Setup	Other Construction Equipment	2	4.00	171	0.42

Staging Yard Setup	Skid Steer Loaders	1	5.00	64	0.37
Staging Yard Setup	Tractors/Loaders/Backhoes	1	4.00	97	0.37
WorkerCommute/WaterImport	Cranes	0	4.00	226	0.29
WorkerCommute/WaterImport	Forklifts	0	6.00	89	0.20
WorkerCommute/WaterImport	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Micropile Foundation Construction	Air Compressors	2	3.00	78	0.48
Micropile Foundation Construction	Bore/Drill Rigs	2	7.00	205	0.50
Micropile Foundation Construction	Cranes	2	3.00	226	0.29
Micropile Foundation Construction	Generator Sets	2	4.00	84	0.74
Micropile Foundation Construction	Graders	0	8.00	174	0.41
Micropile Foundation Construction	Off-Highway Trucks	1	3.00	400	0.38
Micropile Foundation Construction	Pumps	1	2.00	84	0.74
Micropile Foundation Construction	Rough Terrain Forklifts	2	2.00	100	0.40
Micropile Foundation Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Pier Foundation Construction	Air Compressors	2	3.00	78	0.48
Pier Foundation Construction	Bore/Drill Rigs	2	7.00	205	0.50
Pier Foundation Construction	Cranes	2	3.00	226	0.29
Pier Foundation Construction	Generator Sets	2	3.00	84	0.74
Pier Foundation Construction	Graders	0	8.00	174	0.41
Pier Foundation Construction	Off-Highway Trucks	2	3.00	400	0.38
Pier Foundation Construction	Pumps	1	2.00	84	0.74
Pier Foundation Construction	Rough Terrain Forklifts	2	3.00	100	0.40
Pier Foundation Construction	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Direct Bury and Pole Installation	Aerial Lifts	3	5.00	62	0.31
Direct Bury and Pole Installation	Air Compressors	2	3.00	78	0.48
Direct Bury and Pole Installation	Bore/Drill Rigs	3	7.00	205	0.50
Direct Bury and Pole Installation	Cranes	3	5.00	226	0.29
Direct Bury and Pole Installation	Excavators	0	0.00	162	0.38

Direct Bury and Pole Installation	Graders	0	8.00	174	0.41
Direct Bury and Pole Installation	Off-Highway Trucks	2	4.00	400	0.38
Direct Bury and Pole Installation	Pumps	1	2.00	84	0.74
Direct Bury and Pole Installation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Trenching for Underground	Pumps	1	2.00	84	0.74
Trenching for Underground	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Stringing Activities	Aerial Lifts	3	8.00	62	0.31
Stringing Activities	Concrete/Industrial Saws	1	2.00	81	0.73
Stringing Activities	Cranes	3	7.00	226	0.29
Stringing Activities	Forklifts	0	6.00	89	0.20
Stringing Activities	Off-Highway Trucks	2	5.00	400	0.38
Stringing Activities	Other Construction Equipment	1	6.00	171	0.42
Stringing Activities	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Demobilization/Cleanup	Graders	1	6.00	174	0.41
Demobilization/Cleanup	Off-Highway Trucks	1	3.00	400	0.38
Demobilization/Cleanup	Off-Highway Trucks	1	6.00	400	0.38
Demobilization/Cleanup	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Staging Yard Setup	8	1.00	5.00	6.00	30.00	30.00	30.00	LD_Mix	HDT_Mix	HHDT
Worker Commute/Water Transport	0	36.00		1,023.00	30.00	30.00	30.00	LD_Mix	HDT_Mix	HHDT
Micropile Foundation Construction	12	2.00	5.00	14.00	30.00	30.00	30.00	LD_Mix	HDT_Mix	HHDT
Pier Foundation Construction	13	0.00	5.00	210.00	30.00	30.00	30.00	LD_Mix	HDT_Mix	HHDT
Direct Bury and Pole Installation	15	0.00	5.00	178.00	30.00	30.00	30.00	LD_Mix	HDT_Mix	HHDT
Trenching for Underground	2	0.00	5.00	2.00	30.00	30.00	30.00	LD_Mix	HDT_Mix	HHDT
Stringing Activities	10	2.00	5.00	0.00	30.00	30.00	30.00	LD_Mix	HDT_Mix	HHDT
Demobilization/Clean-up	4	2.00	5.00	0.00	30.00	30.00	30.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

- Use Soil Stabilizer
- Water Exposed Area
- Reduce Vehicle Speed on Unpaved Roads

3.2 Staging Yard Setup - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.1400e-003	0.0000	5.1400e-003	5.6000e-004	0.0000	5.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.3600e-003	0.1012	0.0526	9.0000e-005		5.1100e-003	5.1100e-003		4.7000e-003	4.7000e-003	0.0000	8.4667	8.4667	2.5500e-003	0.0000	8.5203
Total	9.3600e-003	0.1012	0.0526	9.0000e-005	5.1400e-003	5.1100e-003	0.0103	5.6000e-004	4.7000e-003	5.2600e-003	0.0000	8.4667	8.4667	2.5500e-003	0.0000	8.5203

3.2 Staging Yard Setup - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.0000e-005	1.2700e-003	8.2000e-004	0.0000	0.0237	2.0000e-005	0.0237	2.3700e-003	2.0000e-005	2.3900e-003	0.0000	0.3050	0.3050	0.0000	0.0000	0.3050
Vendor	3.4000e-004	5.0400e-003	3.1100e-003	1.0000e-005	0.1183	9.0000e-005	0.1184	0.0119	8.0000e-005	0.0120	0.0000	1.2570	1.2570	1.0000e-005	0.0000	1.2572
Worker	2.0000e-005	3.0000e-005	3.2000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0612	0.0612	0.0000	0.0000	0.0612
Total	4.4000e-004	6.3400e-003	4.2500e-003	1.0000e-005	0.1420	1.1000e-004	0.1421	0.0143	1.0000e-004	0.0144	0.0000	1.6232	1.6232	1.0000e-005	0.0000	1.6235

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3100e-003	0.0000	2.3100e-003	2.5000e-004	0.0000	2.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.3600e-003	0.1012	0.0526	9.0000e-005		5.1100e-003	5.1100e-003		4.7000e-003	4.7000e-003	0.0000	8.4667	8.4667	2.5500e-003	0.0000	8.5203
Total	9.3600e-003	0.1012	0.0526	9.0000e-005	2.3100e-003	5.1100e-003	7.4200e-003	2.5000e-004	4.7000e-003	4.9500e-003	0.0000	8.4667	8.4667	2.5500e-003	0.0000	8.5203

3.2 Staging Yard Setup - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.0000e-005	1.2700e-003	8.2000e-004	0.0000	6.5600e-003	2.0000e-005	6.5800e-003	6.7000e-004	2.0000e-005	6.8000e-004	0.0000	0.3050	0.3050	0.0000	0.0000	0.3050
Vendor	3.4000e-004	5.0400e-003	3.1100e-003	1.0000e-005	0.0328	9.0000e-005	0.0329	3.3400e-003	8.0000e-005	3.4200e-003	0.0000	1.2570	1.2570	1.0000e-005	0.0000	1.2572
Worker	2.0000e-005	3.0000e-005	3.2000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0612	0.0612	0.0000	0.0000	0.0612
Total	4.4000e-004	6.3400e-003	4.2500e-003	1.0000e-005	0.0395	1.1000e-004	0.0396	4.0300e-003	1.0000e-004	4.1200e-003	0.0000	1.6232	1.6232	1.0000e-005	0.0000	1.6235

3.3 WorkerCommute/WaterImport - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.3 WorkerCommute/WaterImport - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0200e-003	0.0967	0.0621	2.5000e-004	0.0113	1.3000e-003	0.0126	2.9400e-003	1.2000e-003	4.1400e-003	0.0000	23.1748	23.1748	1.6000e-004	0.0000	23.1782
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7800e-003	0.0171	0.1562	4.0000e-004	0.0329	2.3000e-004	0.0331	8.7300e-003	2.1000e-004	8.9400e-003	0.0000	30.0882	30.0882	1.5300e-003	0.0000	30.1203
Total	0.0138	0.1138	0.2182	6.5000e-004	0.0442	1.5300e-003	0.0457	0.0117	1.4100e-003	0.0131	0.0000	53.2630	53.2630	1.6900e-003	0.0000	53.2985

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.3 WorkerCommute/WaterImport - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0200e-003	0.0967	0.0621	2.5000e-004	0.0113	1.3000e-003	0.0126	2.9400e-003	1.2000e-003	4.1400e-003	0.0000	23.1748	23.1748	1.6000e-004	0.0000	23.1782
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.7800e-003	0.0171	0.1562	4.0000e-004	0.0329	2.3000e-004	0.0331	8.7300e-003	2.1000e-004	8.9400e-003	0.0000	30.0882	30.0882	1.5300e-003	0.0000	30.1203
Total	0.0138	0.1138	0.2182	6.5000e-004	0.0442	1.5300e-003	0.0457	0.0117	1.4100e-003	0.0131	0.0000	53.2630	53.2630	1.6900e-003	0.0000	53.2985

3.3 WorkerCommute/WaterImport - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.3 WorkerCommute/WaterImport - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.0200e-003	0.1071	0.0739	3.1000e-004	0.0117	1.4300e-003	0.0131	3.0700e-003	1.3100e-003	4.3800e-003	0.0000	28.3364	28.3364	1.9000e-004	0.0000	28.3405
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.5900e-003	0.0194	0.1748	4.9000e-004	0.0409	2.8000e-004	0.0411	0.0109	2.6000e-004	0.0111	0.0000	35.9797	35.9797	1.7600e-003	0.0000	36.0168
Total	0.0156	0.1264	0.2487	8.0000e-004	0.0525	1.7100e-003	0.0542	0.0139	1.5700e-003	0.0155	0.0000	64.3161	64.3161	1.9500e-003	0.0000	64.3572

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

3.3 WorkerCommute/WaterImport - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	7.0200e-003	0.1071	0.0739	3.1000e-004	0.0117	1.4300e-003	0.0131	3.0700e-003	1.3100e-003	4.3800e-003	0.0000	28.3364	28.3364	1.9000e-004	0.0000	28.3405
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.5900e-003	0.0194	0.1748	4.9000e-004	0.0409	2.8000e-004	0.0411	0.0109	2.6000e-004	0.0111	0.0000	35.9797	35.9797	1.7600e-003	0.0000	36.0168
Total	0.0156	0.1264	0.2487	8.0000e-004	0.0525	1.7100e-003	0.0542	0.0139	1.5700e-003	0.0155	0.0000	64.3161	64.3161	1.9500e-003	0.0000	64.3572

3.4 Micropile Foundation Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0557	0.5888	0.3110	7.5000e-004		0.0283	0.0283		0.0270	0.0270	0.0000	68.5813	68.5813	0.0168	0.0000	68.9339
Total	0.0557	0.5888	0.3110	7.5000e-004	0.0000	0.0283	0.0283	0.0000	0.0270	0.0270	0.0000	68.5813	68.5813	0.0168	0.0000	68.9339

3.4 Micropile Foundation Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.8000e-004	2.9700e-003	1.9100e-003	1.0000e-005	0.0552	4.0000e-005	0.0552	5.5300e-003	4.0000e-005	5.5700e-003	0.0000	0.7117	0.7117	0.0000	0.0000	0.7118
Vendor	2.2800e-003	0.0336	0.0208	9.0000e-005	0.7886	5.7000e-004	0.7892	0.0791	5.3000e-004	0.0797	0.0000	8.3802	8.3802	6.0000e-005	0.0000	8.3814
Worker	2.1000e-004	4.6000e-004	4.2300e-003	1.0000e-005	8.9000e-004	1.0000e-005	9.0000e-004	2.4000e-004	1.0000e-005	2.4000e-004	0.0000	0.8154	0.8154	4.0000e-005	0.0000	0.8163
Total	2.6700e-003	0.0370	0.0269	1.1000e-004	0.8447	6.2000e-004	0.8453	0.0849	5.8000e-004	0.0855	0.0000	9.9072	9.9072	1.0000e-004	0.0000	9.9095

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0557	0.5888	0.3110	7.5000e-004		0.0283	0.0283		0.0270	0.0270	0.0000	68.5812	68.5812	0.0168	0.0000	68.9339
Total	0.0557	0.5888	0.3110	7.5000e-004	0.0000	0.0283	0.0283	0.0000	0.0270	0.0270	0.0000	68.5812	68.5812	0.0168	0.0000	68.9339

3.4 Micropile Foundation Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.8000e-004	2.9700e-003	1.9100e-003	1.0000e-005	0.0153	4.0000e-005	0.0154	1.5500e-003	4.0000e-005	1.5900e-003	0.0000	0.7117	0.7117	0.0000	0.0000	0.7118
Vendor	2.2800e-003	0.0336	0.0208	9.0000e-005	0.2189	5.7000e-004	0.2195	0.0223	5.3000e-004	0.0228	0.0000	8.3802	8.3802	6.0000e-005	0.0000	8.3814
Worker	2.1000e-004	4.6000e-004	4.2300e-003	1.0000e-005	8.9000e-004	1.0000e-005	9.0000e-004	2.4000e-004	1.0000e-005	2.4000e-004	0.0000	0.8154	0.8154	4.0000e-005	0.0000	0.8163
Total	2.6700e-003	0.0370	0.0269	1.1000e-004	0.2351	6.2000e-004	0.2358	0.0240	5.8000e-004	0.0246	0.0000	9.9072	9.9072	1.0000e-004	0.0000	9.9095

3.5 Pier Foundation Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1048	1.1285	0.6046	1.3900e-003		0.0548	0.0548		0.0518	0.0518	0.0000	128.8607	128.8607	0.0337	0.0000	129.5678
Total	0.1048	1.1285	0.6046	1.3900e-003	6.0000e-005	0.0548	0.0548	1.0000e-005	0.0518	0.0518	0.0000	128.8607	128.8607	0.0337	0.0000	129.5678

3.5 Pier Foundation Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr										MT/yr						
Hauling	2.7700e-003	0.0445	0.0286	1.2000e-004	0.8279	6.0000e-004	0.8285	0.0830	5.5000e-004	0.0836	0.0000	10.6749	10.6749	7.0000e-005	0.0000	0.0000	10.6765
Vendor	3.5900e-003	0.0529	0.0327	1.4000e-004	1.2420	9.0000e-004	1.2429	0.1246	8.3000e-004	0.1255	0.0000	13.1988	13.1988	9.0000e-005	0.0000	0.0000	13.2007
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.3600e-003	0.0974	0.0613	2.6000e-004	2.0699	1.5000e-003	2.0714	0.2076	1.3800e-003	0.2090	0.0000	23.8737	23.8737	1.6000e-004	0.0000	0.0000	23.8772

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr										MT/yr						
Fugitive Dust					3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1048	1.1285	0.6046	1.3900e-003		0.0548	0.0548		0.0518	0.0518	0.0000	128.8605	128.8605	0.0337	0.0000	0.0000	129.5677
Total	0.1048	1.1285	0.6046	1.3900e-003	3.0000e-005	0.0548	0.0548	0.0000	0.0518	0.0518	0.0000	128.8605	128.8605	0.0337	0.0000	0.0000	129.5677

3.5 Pier Foundation Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.7700e-003	0.0445	0.0286	1.2000e-004	0.2298	6.0000e-004	0.2304	0.0233	5.5000e-004	0.0239	0.0000	10.6749	10.6749	7.0000e-005	0.0000	10.6765
Vendor	3.5900e-003	0.0529	0.0327	1.4000e-004	0.3448	9.0000e-004	0.3457	0.0351	8.3000e-004	0.0359	0.0000	13.1988	13.1988	9.0000e-005	0.0000	13.2007
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.3600e-003	0.0974	0.0613	2.6000e-004	0.5746	1.5000e-003	0.5761	0.0584	1.3800e-003	0.0597	0.0000	23.8737	23.8737	1.6000e-004	0.0000	23.8772

3.6 Direct Bury and Pole Installation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1575	1.8543	0.8748	2.1700e-003		0.0804	0.0804		0.0748	0.0748	0.0000	203.0815	203.0815	0.0584	0.0000	204.3073
Total	0.1575	1.8543	0.8748	2.1700e-003	6.0000e-005	0.0804	0.0805	1.0000e-005	0.0748	0.0748	0.0000	203.0815	203.0815	0.0584	0.0000	204.3073

3.6 Direct Bury and Pole Installation - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9900e-003	0.0319	0.0205	8.0000e-005	0.7017	4.3000e-004	0.7021	0.0703	4.0000e-004	0.0707	0.0000	7.6408	7.6408	5.0000e-005	0.0000	7.6419
Vendor	4.3300e-003	0.0638	0.0394	1.7000e-004	1.4983	1.0800e-003	1.4994	0.1503	1.0000e-003	0.1513	0.0000	15.9223	15.9223	1.1000e-004	0.0000	15.9247
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.3200e-003	0.0957	0.0599	2.5000e-004	2.2000	1.5100e-003	2.2015	0.2207	1.4000e-003	0.2221	0.0000	23.5631	23.5631	1.6000e-004	0.0000	23.5666

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1575	1.8543	0.8748	2.1700e-003		0.0804	0.0804		0.0748	0.0748	0.0000	203.0812	203.0812	0.0584	0.0000	204.3071
Total	0.1575	1.8543	0.8748	2.1700e-003	3.0000e-005	0.0804	0.0804	0.0000	0.0748	0.0748	0.0000	203.0812	203.0812	0.0584	0.0000	204.3071

3.6 Direct Bury and Pole Installation - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.9900e-003	0.0319	0.0205	8.0000e-005	0.1947	4.3000e-004	0.1951	0.0197	4.0000e-004	0.0201	0.0000	7.6408	7.6408	5.0000e-005	0.0000	7.6419
Vendor	4.3300e-003	0.0638	0.0394	1.7000e-004	0.4160	1.0800e-003	0.4170	0.0423	1.0000e-003	0.0433	0.0000	15.9223	15.9223	1.1000e-004	0.0000	15.9247
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.3200e-003	0.0957	0.0599	2.5000e-004	0.6106	1.5100e-003	0.6121	0.0620	1.4000e-003	0.0634	0.0000	23.5631	23.5631	1.6000e-004	0.0000	23.5666

3.6 Direct Bury and Pole Installation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.0000e-005	0.0000	6.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0263	0.3060	0.1542	4.0000e-004		0.0130	0.0130		0.0121	0.0121	0.0000	36.8566	36.8566	0.0107	0.0000	37.0817
Total	0.0263	0.3060	0.1542	4.0000e-004	6.0000e-005	0.0130	0.0131	1.0000e-005	0.0121	0.0121	0.0000	36.8566	36.8566	0.0107	0.0000	37.0817

3.6 Direct Bury and Pole Installation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.4000e-004	5.2300e-003	3.6100e-003	2.0000e-005	0.7013	7.0000e-005	0.7013	0.0702	6.0000e-005	0.0703	0.0000	1.3835	1.3835	1.0000e-005	0.0000	1.3837
Vendor	7.3000e-004	0.0104	6.7800e-003	3.0000e-005	0.2760	1.7000e-004	0.2762	0.0277	1.6000e-004	0.0279	0.0000	2.8834	2.8834	2.0000e-005	0.0000	2.8838
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.0700e-003	0.0156	0.0104	5.0000e-005	0.9773	2.4000e-004	0.9775	0.0979	2.2000e-004	0.0981	0.0000	4.2670	4.2670	3.0000e-005	0.0000	4.2676

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0263	0.3060	0.1542	4.0000e-004		0.0130	0.0130		0.0121	0.0121	0.0000	36.8566	36.8566	0.0107	0.0000	37.0816
Total	0.0263	0.3060	0.1542	4.0000e-004	3.0000e-005	0.0130	0.0130	0.0000	0.0121	0.0121	0.0000	36.8566	36.8566	0.0107	0.0000	37.0816

3.6 Direct Bury and Pole Installation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.4000e-004	5.2300e-003	3.6100e-003	2.0000e-005	0.1943	7.0000e-005	0.1943	0.0196	6.0000e-005	0.0196	0.0000	1.3835	1.3835	1.0000e-005	0.0000	1.3837
Vendor	7.3000e-004	0.0104	6.7800e-003	3.0000e-005	0.0766	1.7000e-004	0.0768	7.7900e-003	1.6000e-004	7.9500e-003	0.0000	2.8834	2.8834	2.0000e-005	0.0000	2.8838
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.0700e-003	0.0156	0.0104	5.0000e-005	0.2709	2.4000e-004	0.2711	0.0274	2.2000e-004	0.0276	0.0000	4.2670	4.2670	3.0000e-005	0.0000	4.2676

3.7 Trenching for Underground - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.4000e-004	5.6900e-003	4.5800e-003	1.0000e-005		4.2000e-004	4.2000e-004		3.9000e-004	3.9000e-004	0.0000	0.5909	0.5909	1.3000e-004	0.0000	0.5937
Total	6.4000e-004	5.6900e-003	4.5800e-003	1.0000e-005		4.2000e-004	4.2000e-004		3.9000e-004	3.9000e-004	0.0000	0.5909	0.5909	1.3000e-004	0.0000	0.5937

3.7 Trenching for Underground - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	3.8000e-004	2.6000e-004	0.0000	7.8800e-003	1.0000e-005	7.8900e-003	7.9000e-004	0.0000	8.0000e-004	0.0000	0.0999	0.0999	0.0000	0.0000	0.1000
Vendor	1.6000e-004	2.2300e-003	1.4500e-003	1.0000e-005	0.0591	4.0000e-005	0.0592	5.9300e-003	3.0000e-005	5.9700e-003	0.0000	0.6179	0.6179	0.0000	0.0000	0.6180
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.8000e-004	2.6100e-003	1.7100e-003	1.0000e-005	0.0670	5.0000e-005	0.0671	6.7200e-003	3.0000e-005	6.7700e-003	0.0000	0.7178	0.7178	0.0000	0.0000	0.7179

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.4000e-004	5.6900e-003	4.5800e-003	1.0000e-005		4.2000e-004	4.2000e-004		3.9000e-004	3.9000e-004	0.0000	0.5909	0.5909	1.3000e-004	0.0000	0.5937
Total	6.4000e-004	5.6900e-003	4.5800e-003	1.0000e-005		4.2000e-004	4.2000e-004		3.9000e-004	3.9000e-004	0.0000	0.5909	0.5909	1.3000e-004	0.0000	0.5937

3.7 Trenching for Underground - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-005	3.8000e-004	2.6000e-004	0.0000	2.1900e-003	1.0000e-005	2.1900e-003	2.2000e-004	0.0000	2.3000e-004	0.0000	0.0999	0.0999	0.0000	0.0000	0.1000
Vendor	1.6000e-004	2.2300e-003	1.4500e-003	1.0000e-005	0.0164	4.0000e-005	0.0165	1.6700e-003	3.0000e-005	1.7000e-003	0.0000	0.6179	0.6179	0.0000	0.0000	0.6180
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	1.8000e-004	2.6100e-003	1.7100e-003	1.0000e-005	0.0186	5.0000e-005	0.0187	1.8900e-003	3.0000e-005	1.9300e-003	0.0000	0.7178	0.7178	0.0000	0.0000	0.7179

3.8 Stringing Activities - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1067	1.2353	0.6132	1.2700e-003		0.0538	0.0538		0.0497	0.0497	0.0000	117.6167	117.6167	0.0352	0.0000	118.3550
Total	0.1067	1.2353	0.6132	1.2700e-003		0.0538	0.0538		0.0497	0.0497	0.0000	117.6167	117.6167	0.0352	0.0000	118.3550

3.8 Stringing Activities - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr										MT/yr						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.1400e-003	0.0446	0.0291	1.4000e-004	1.1829	7.4000e-004	1.1836	0.1187	6.8000e-004	0.1194	0.0000	12.3575	12.3575	8.0000e-005	0.0000	12.3593	
Worker	2.8000e-004	6.3000e-004	5.7100e-003	2.0000e-005	1.3400e-003	1.0000e-005	1.3400e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.1758	1.1758	6.0000e-005	0.0000	1.1770	
Total	3.4200e-003	0.0452	0.0348	1.6000e-004	1.1842	7.5000e-004	1.1850	0.1190	6.9000e-004	0.1197	0.0000	13.5333	13.5333	1.4000e-004	0.0000	13.5363	

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1067	1.2353	0.6132	1.2700e-003		0.0538	0.0538		0.0497	0.0497	0.0000	117.6166	117.6166	0.0352	0.0000	118.3549
Total	0.1067	1.2353	0.6132	1.2700e-003		0.0538	0.0538		0.0497	0.0497	0.0000	117.6166	117.6166	0.0352	0.0000	118.3549

3.8 Stringing Activities - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.1400e-003	0.0446	0.0291	1.4000e-004	0.3284	7.4000e-004	0.3291	0.0334	6.8000e-004	0.0341	0.0000	12.3575	12.3575	8.0000e-005	0.0000	12.3593
Worker	2.8000e-004	6.3000e-004	5.7100e-003	2.0000e-005	1.3400e-003	1.0000e-005	1.3400e-003	3.5000e-004	1.0000e-005	3.6000e-004	0.0000	1.1758	1.1758	6.0000e-005	0.0000	1.1770
Total	3.4200e-003	0.0452	0.0348	1.6000e-004	0.3297	7.5000e-004	0.3305	0.0337	6.9000e-004	0.0344	0.0000	13.5333	13.5333	1.4000e-004	0.0000	13.5363

3.9 Demobilization/Cleanup - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.1400e-003	0.0000	5.1400e-003	5.6000e-004	0.0000	5.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0256	0.2725	0.1429	2.9000e-004		0.0132	0.0132		0.0122	0.0122	0.0000	26.7590	26.7590	8.2000e-003	0.0000	26.9312
Total	0.0256	0.2725	0.1429	2.9000e-004	5.1400e-003	0.0132	0.0184	5.6000e-004	0.0122	0.0127	0.0000	26.7590	26.7590	8.2000e-003	0.0000	26.9312

3.9 Demobilization/Cleanup - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3600e-003	0.0193	0.0126	6.0000e-005	0.5126	3.2000e-004	0.5129	0.0514	3.0000e-004	0.0517	0.0000	5.3549	5.3549	4.0000e-005	0.0000	5.3557
Worker	1.2000e-004	2.7000e-004	2.4800e-003	1.0000e-005	5.8000e-004	0.0000	5.8000e-004	1.5000e-004	0.0000	1.6000e-004	0.0000	0.5095	0.5095	2.0000e-005	0.0000	0.5100
Total	1.4800e-003	0.0196	0.0151	7.0000e-005	0.5132	3.2000e-004	0.5135	0.0516	3.0000e-004	0.0519	0.0000	5.8645	5.8645	6.0000e-005	0.0000	5.8657

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.3100e-003	0.0000	2.3100e-003	2.5000e-004	0.0000	2.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0256	0.2725	0.1429	2.9000e-004		0.0132	0.0132		0.0122	0.0122	0.0000	26.7589	26.7589	8.2000e-003	0.0000	26.9311
Total	0.0256	0.2725	0.1429	2.9000e-004	2.3100e-003	0.0132	0.0155	2.5000e-004	0.0122	0.0124	0.0000	26.7589	26.7589	8.2000e-003	0.0000	26.9311

3.9 Demobilization/Cleanup - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3600e-003	0.0193	0.0126	6.0000e-005	0.1423	3.2000e-004	0.1426	0.0145	3.0000e-004	0.0148	0.0000	5.3549	5.3549	4.0000e-005	0.0000	5.3557
Worker	1.2000e-004	2.7000e-004	2.4800e-003	1.0000e-005	5.8000e-004	0.0000	5.8000e-004	1.5000e-004	0.0000	1.6000e-004	0.0000	0.5095	0.5095	2.0000e-005	0.0000	0.5100
Total	1.4800e-003	0.0196	0.0151	7.0000e-005	0.1429	3.2000e-004	0.1432	0.0146	3.0000e-004	0.0149	0.0000	5.8645	5.8645	6.0000e-005	0.0000	5.8657

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510423	0.073380	0.192408	0.132453	0.036550	0.005219	0.012745	0.022253	0.001862	0.002079	0.006550	0.000609	0.003468

5.0 Energy Detail

5.1 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	tons/yr										MT/yr						
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
SubCategory	tons/yr										MT/yr						
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation

TL649 Wood-to-Steel
San Diego County, Summer

1.0 Project Characteristics

1.1 Land Usage

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2017
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Because the existing line is being rebuilt, no land use types have been entered.

Construction Phase - Construction schedule taken from Chapter 3 - Project Description

Off-road Equipment - Construction equipment taken from Attachment 3-D

Off-road Equipment - Construction equipment taken from Attachment 3-D

Off-road Equipment - Default values set to a quantity of zero. Equipment taken from Chapter 3 - Project Description.

Off-road Equipment - Construction equipment taken from Attachment 3-D

Off-road Equipment - Construction equipment taken from Attachment 3-D

Off-road Equipment - Construction equipment taken from Attachment 3-D

Off-road Equipment - Defaults set to zero.

Off-road Equipment - Construction equipment taken from Attachment 3-D

Off-road Equipment - Defaults set to zero.

Trips and VMT - Values calculated based upon data in Chapter 3 - Project Description

On-road Fugitive Dust - Assume that all worker trips are paved. Assume that 80 percent of vendor and hauling miles are paved.

Grading - A maximum of 9.7 acres per day will be disturbed during the staging yard development/access road improvement process and restoration.

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	184.00
tblConstructionPhase	NumDays	0.00	60.00
tblConstructionPhase	NumDays	0.00	6.00
tblConstructionPhase	NumDays	0.00	40.00
tblConstructionPhase	NumDays	0.00	63.00
tblConstructionPhase	NumDays	0.00	90.00
tblConstructionPhase	NumDays	0.00	26.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00

tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	PhaseEndDate	5/6/2017	4/29/2017
tblConstructionPhase	PhaseEndDate	3/31/2017	3/29/2017
tblConstructionPhase	PhaseEndDate	6/15/2017	11/19/2016
tblConstructionPhase	PhaseEndDate	2/1/2017	12/16/2016
tblConstructionPhase	PhaseEndDate	3/31/2017	1/17/2017
tblConstructionPhase	PhaseEndDate	4/28/2017	4/29/2017
tblConstructionPhase	PhaseStartDate	10/5/2016	9/28/2016
tblConstructionPhase	PhaseStartDate	1/21/2017	1/19/2017
tblConstructionPhase	PhaseStartDate	4/30/2017	10/5/2016
tblConstructionPhase	PhaseStartDate	11/20/2016	10/5/2016
tblConstructionPhase	PhaseStartDate	12/17/2016	10/5/2016
tblConstructionPhase	PhaseStartDate	3/30/2017	3/31/2017
tblGrading	AcresOfGrading	3.75	9.70
tblGrading	AcresOfGrading	9.75	9.70
tblGrading	MaterialExported	0.00	55.00
tblGrading	MaterialExported	0.00	898.00
tblGrading	MaterialExported	0.00	838.80
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00

tbloffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tbloffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tbloffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tbloffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tbloffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tbloffRoadEquipment	PhaseName		Direct Bury and Pole Installation
tbloffRoadEquipment	PhaseName		Stringing Activities
tbloffRoadEquipment	PhaseName		Micropile Foundation Construction
tbloffRoadEquipment	PhaseName		Pier Foundation Construction
tbloffRoadEquipment	PhaseName		Direct Bury and Pole Installation
tbloffRoadEquipment	PhaseName		Micropile Foundation Construction
tbloffRoadEquipment	PhaseName		Pier Foundation Construction
tbloffRoadEquipment	PhaseName		Direct Bury and Pole Installation
tbloffRoadEquipment	PhaseName		Stringing Activities
tbloffRoadEquipment	PhaseName		Micropile Foundation Construction
tbloffRoadEquipment	PhaseName		Pier Foundation Construction
tbloffRoadEquipment	PhaseName		Direct Bury and Pole Installation
tbloffRoadEquipment	PhaseName		Direct Bury and Pole Installation
tbloffRoadEquipment	PhaseName		Micropile Foundation Construction
tbloffRoadEquipment	PhaseName		Pier Foundation Construction
tbloffRoadEquipment	PhaseName		Micropile Foundation Construction
tbloffRoadEquipment	PhaseName		Pier Foundation Construction
tbloffRoadEquipment	PhaseName		Direct Bury and Pole Installation
tbloffRoadEquipment	PhaseName		Stringing Activities
tbloffRoadEquipment	PhaseName		Demobilization/Cleanup
tbloffRoadEquipment	PhaseName		Demobilization/Cleanup
tbloffRoadEquipment	PhaseName		Stringing Activities
tbloffRoadEquipment	PhaseName		Micropile Foundation Construction

tblOffRoadEquipment	PhaseName			Pier Foundation Construction
tblOffRoadEquipment	PhaseName			Direct Bury and Pole Installation
tblOffRoadEquipment	PhaseName			Trenching for Underground
tblOffRoadEquipment	PhaseName			Micropile Foundation Construction
tblOffRoadEquipment	PhaseName			Pier Foundation Construction
tblOffRoadEquipment	PhaseName			Trenching for Underground
tblOffRoadEquipment	UsageHours		4.00	7.00
tblOffRoadEquipment	UsageHours		8.00	5.00
tblOffRoadEquipment	UsageHours		8.00	6.00
tblOffRoadEquipment	UsageHours		8.00	4.00
tblOffRoadEquipment	UsageHours		8.00	7.00
tblOffRoadEquipment	UsageHours		8.00	7.00
tblOffRoadEquipment	UsageHours		8.00	7.00
tblOnRoadDust	HaulingPercentPave		100.00	80.00
tblOnRoadDust	HaulingPercentPave		100.00	80.00
tblOnRoadDust	HaulingPercentPave		100.00	80.00
tblOnRoadDust	HaulingPercentPave		100.00	80.00
tblOnRoadDust	HaulingPercentPave		100.00	80.00
tblOnRoadDust	HaulingPercentPave		100.00	80.00
tblOnRoadDust	HaulingPercentPave		100.00	80.00
tblOnRoadDust	VendorPercentPave		100.00	80.00
tblOnRoadDust	VendorPercentPave		100.00	80.00
tblOnRoadDust	VendorPercentPave		100.00	80.00
tblOnRoadDust	VendorPercentPave		100.00	80.00
tblOnRoadDust	VendorPercentPave		100.00	80.00
tblOnRoadDust	VendorPercentPave		100.00	80.00
tblOnRoadDust	VendorPercentPave		100.00	80.00
tblOnRoadDust	VendorPercentPave		100.00	80.00
tblProjectCharacteristics	OperationalYear		2014	2017

tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripNumber	0.00	6.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,023.00
tblTripsAndVMT	HaulingTripNumber	7.00	14.00
tblTripsAndVMT	HaulingTripNumber	112.00	210.00
tblTripsAndVMT	HaulingTripNumber	105.00	178.00
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblTripsAndVMT	HaulingVehicleClass		HHDT
tblTripsAndVMT	HaulingVehicleClass		HHDT
tblTripsAndVMT	HaulingVehicleClass		HHDT
tblTripsAndVMT	HaulingVehicleClass		HHDT
tblTripsAndVMT	HaulingVehicleClass		HHDT
tblTripsAndVMT	HaulingVehicleClass		HHDT
tblTripsAndVMT	HaulingVehicleClass		HHDT
tblTripsAndVMT	HaulingVehicleClass		HHDT
tblTripsAndVMT	VendorTripLength	6.60	30.00
tblTripsAndVMT	VendorTripLength	6.60	30.00
tblTripsAndVMT	VendorTripLength	6.60	30.00
tblTripsAndVMT	VendorTripLength	6.60	30.00
tblTripsAndVMT	VendorTripLength	6.60	30.00
tblTripsAndVMT	VendorTripLength	6.60	30.00
tblTripsAndVMT	VendorTripLength	6.60	30.00
tblTripsAndVMT	VendorTripLength	6.60	30.00
tblTripsAndVMT	VendorVehicleClass		HDT_Mix
tblTripsAndVMT	VendorVehicleClass		HDT_Mix
tblTripsAndVMT	VendorVehicleClass		HDT_Mix
tblTripsAndVMT	VendorVehicleClass		HDT_Mix
tblTripsAndVMT	VendorVehicleClass		HDT_Mix

tblTripsAndVMT	VendorVehicleClass		HDT_Mix
tblTripsAndVMT	VendorVehicleClass		HDT_Mix
tblTripsAndVMT	VendorVehicleClass		HDT_Mix
tblTripsAndVMT	WorkerTripLength	16.80	30.00
tblTripsAndVMT	WorkerTripLength	16.80	30.00
tblTripsAndVMT	WorkerTripLength	16.80	30.00
tblTripsAndVMT	WorkerTripLength	16.80	30.00
tblTripsAndVMT	WorkerTripLength	16.80	30.00
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tblTripsAndVMT	WorkerTripNumber	20.00	1.00
tblTripsAndVMT	WorkerTripNumber	0.00	36.00
tblTripsAndVMT	WorkerTripNumber	30.00	2.00
tblTripsAndVMT	WorkerTripNumber	33.00	0.00
tblTripsAndVMT	WorkerTripNumber	38.00	0.00
tblTripsAndVMT	WorkerTripNumber	5.00	0.00
tblTripsAndVMT	WorkerTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	10.00	2.00
tblTripsAndVMT	WorkerVehicleClass		LD_Mix
tblTripsAndVMT	WorkerVehicleClass		LD_Mix
tblTripsAndVMT	WorkerVehicleClass		LD_Mix
tblTripsAndVMT	WorkerVehicleClass		LD_Mix
tblTripsAndVMT	WorkerVehicleClass		LD_Mix
tblTripsAndVMT	WorkerVehicleClass		LD_Mix
tblTripsAndVMT	WorkerVehicleClass		LD_Mix
tblTripsAndVMT	WorkerVehicleClass		LD_Mix
tblTripsAndVMT	WorkerVehicleClass		LD_Mix

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	11.0716	123.9094	67.4287	0.1758	187.3021	5.4230	192.7251	18.9679	5.1052	24.0731	0.0000	17,726.2402	17,726.2402	3.8593	0.0000	17,807.2844
2017	4.5147	50.4673	30.4634	0.0803	157.8165	2.1595	159.7420	15.9759	1.9991	17.7675	0.0000	7,909.7346	7,909.7346	1.7343	0.0000	7,946.1545
Total	15.5863	174.3767	97.8921	0.2561	345.1186	7.5825	352.4672	34.9438	7.1043	41.8406	0.0000	25,635.9747	25,635.9747	5.5935	0.0000	25,753.4389

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	11.0716	123.9094	67.4287	0.1758	52.7869	5.4230	58.2099	5.5388	5.1052	10.6439	0.0000	17,726.2401	17,726.2401	3.8593	0.0000	17,807.2844
2017	4.5147	50.4673	30.4634	0.0803	44.4861	2.1595	46.4116	4.6617	1.9991	6.4534	0.0000	7,909.7346	7,909.7346	1.7343	0.0000	7,946.1545
Total	15.5863	174.3767	97.8921	0.2561	97.2730	7.5825	104.6215	10.2005	7.1043	17.0973	0.0000	25,635.9747	25,635.9747	5.5935	0.0000	25,753.4389

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	71.81	0.00	70.32	70.81	0.00	59.14	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Staging Yard Setup	Site Preparation	9/28/2016	10/4/2016	6	6	Staging Yard Setup
2	Worker Commute/Water Import	Building Construction	9/28/2016	4/29/2017	6	184	Worker Commute/Water Import
3	Micropile Foundation Construction	Site Preparation	10/5/2016	11/19/2016	6	40	Micropile Foundation Construction
4	Pier Foundation Construction	Site Preparation	10/5/2016	12/16/2016	6	63	Pier Foundation Construction
5	Direct Bury and Pole Installation	Site Preparation	10/5/2016	1/17/2017	6	90	Direct Bury and Pole Installation
6	Trenching for Underground	Trenching	1/18/2017	1/20/2017	6	3	Trenching for Underground
7	Stringing Activities	Building Construction	1/19/2017	3/29/2017	6	60	Stringing Activities
8	Demobilization/Cleanup	Site Preparation	3/31/2017	4/29/2017	6	26	Demobilization/Cleanup

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Staging Yard Setup	Graders	2	5.00	174	0.41
Staging Yard Setup	Off-Highway Trucks	2	4.00	400	0.38
Staging Yard Setup	Other Construction Equipment	2	4.00	171	0.42

Staging Yard Setup	Skid Steer Loaders	1	5.00	64	0.37
Staging Yard Setup	Tractors/Loaders/Backhoes	1	4.00	97	0.37
WorkerCommute/WaterImport	Cranes	0	4.00	226	0.29
WorkerCommute/WaterImport	Forklifts	0	6.00	89	0.20
WorkerCommute/WaterImport	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Micropile Foundation Construction	Air Compressors	2	3.00	78	0.48
Micropile Foundation Construction	Bore/Drill Rigs	2	7.00	205	0.50
Micropile Foundation Construction	Cranes	2	3.00	226	0.29
Micropile Foundation Construction	Generator Sets	2	4.00	84	0.74
Micropile Foundation Construction	Graders	0	8.00	174	0.41
Micropile Foundation Construction	Off-Highway Trucks	1	3.00	400	0.38
Micropile Foundation Construction	Pumps	1	2.00	84	0.74
Micropile Foundation Construction	Rough Terrain Forklifts	2	2.00	100	0.40
Micropile Foundation Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Pier Foundation Construction	Air Compressors	2	3.00	78	0.48
Pier Foundation Construction	Bore/Drill Rigs	2	7.00	205	0.50
Pier Foundation Construction	Cranes	2	3.00	226	0.29
Pier Foundation Construction	Generator Sets	2	3.00	84	0.74
Pier Foundation Construction	Graders	0	8.00	174	0.41
Pier Foundation Construction	Off-Highway Trucks	2	3.00	400	0.38
Pier Foundation Construction	Pumps	1	2.00	84	0.74
Pier Foundation Construction	Rough Terrain Forklifts	2	3.00	100	0.40
Pier Foundation Construction	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Direct Bury and Pole Installation	Aerial Lifts	3	5.00	62	0.31
Direct Bury and Pole Installation	Air Compressors	2	3.00	78	0.48
Direct Bury and Pole Installation	Bore/Drill Rigs	3	7.00	205	0.50
Direct Bury and Pole Installation	Cranes	3	5.00	226	0.29
Direct Bury and Pole Installation	Excavators	0	0.00	162	0.38

Direct Bury and Pole Installation	Graders	0	8.00	174	0.41
Direct Bury and Pole Installation	Off-Highway Trucks	2	4.00	400	0.38
Direct Bury and Pole Installation	Pumps	1	2.00	84	0.74
Direct Bury and Pole Installation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Trenching for Underground	Pumps	1	2.00	84	0.74
Trenching for Underground	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Stringing Activities	Aerial Lifts	3	8.00	62	0.31
Stringing Activities	Concrete/Industrial Saws	1	2.00	81	0.73
Stringing Activities	Cranes	3	7.00	226	0.29
Stringing Activities	Forklifts	0	6.00	89	0.20
Stringing Activities	Off-Highway Trucks	2	5.00	400	0.38
Stringing Activities	Other Construction Equipment	1	6.00	171	0.42
Stringing Activities	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Demobilization/Cleanup	Graders	1	6.00	174	0.41
Demobilization/Cleanup	Off-Highway Trucks	1	3.00	400	0.38
Demobilization/Cleanup	Off-Highway Trucks	1	6.00	400	0.38
Demobilization/Cleanup	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Staging Yard Setup	8	1.00	5.00	6.00	30.00	30.00	30.00	LD_Mix	HDT_Mix	HHDT
Worker Commute/Water Transport	0	36.00		1,023.00	30.00	30.00	30.00	LD_Mix	HDT_Mix	HHDT
Micropile Foundation Construction	12	2.00	5.00	14.00	30.00	30.00	30.00	LD_Mix	HDT_Mix	HHDT
Pier Foundation Construction	13	0.00	5.00	210.00	30.00	30.00	30.00	LD_Mix	HDT_Mix	HHDT
Direct Bury and Pole Installation	15	0.00	5.00	178.00	30.00	30.00	30.00	LD_Mix	HDT_Mix	HHDT
Trenching for Underground	2	0.00	5.00	2.00	30.00	30.00	30.00	LD_Mix	HDT_Mix	HHDT
Stringing Activities	10	2.00	5.00	0.00	30.00	30.00	30.00	LD_Mix	HDT_Mix	HHDT
Demobilization/Cleanups	4	2.00	5.00	0.00	30.00	30.00	30.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

- Use Soil Stabilizer
- Water Exposed Area
- Reduce Vehicle Speed on Unpaved Roads

3.2 Staging Yard Setup - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.7145	0.0000	1.7145	0.1851	0.0000	0.1851			0.0000			0.0000
Off-Road	3.1212	33.7460	17.5402	0.0299		1.7027	1.7027		1.5665	1.5665		3,110.9644	3,110.9644	0.9384		3,130.6704
Total	3.1212	33.7460	17.5402	0.0299	1.7145	1.7027	3.4172	0.1851	1.5665	1.7516		3,110.9644	3,110.9644	0.9384		3,130.6704

3.2 Staging Yard Setup - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0251	0.4090	0.2333	1.1100e-003	8.8529	5.7200e-003	8.8586	0.8873	5.2600e-003	0.8926		112.1415	112.1415	7.8000e-004		112.1579
Vendor	0.1093	1.6200	0.9119	4.5900e-003	44.2698	0.0285	44.2983	4.4395	0.0262	4.4658		462.2619	462.2619	3.2600e-003		462.3304
Worker	5.4100e-003	0.0105	0.1134	2.8000e-004	0.0228	1.6000e-004	0.0230	6.0500e-003	1.4000e-004	6.1900e-003		23.7067	23.7067	1.1400e-003		23.7307
Total	0.1398	2.0395	1.2586	5.9800e-003	53.1455	0.0344	53.1799	5.3329	0.0316	5.3645		598.1101	598.1101	5.1800e-003		598.2189

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7715	0.0000	0.7715	0.0833	0.0000	0.0833			0.0000			0.0000
Off-Road	3.1212	33.7460	17.5402	0.0299		1.7027	1.7027		1.5665	1.5665	0.0000	3,110.9644	3,110.9644	0.9384		3,130.6703
Total	3.1212	33.7460	17.5402	0.0299	0.7715	1.7027	2.4742	0.0833	1.5665	1.6498	0.0000	3,110.9644	3,110.9644	0.9384		3,130.6703

3.2 Staging Yard Setup - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0251	0.4090	0.2333	1.1100e-003	2.4553	5.7200e-003	2.4610	0.2486	5.2600e-003	0.2539		112.1415	112.1415	7.8000e-004		112.1579
Vendor	0.1093	1.6200	0.9119	4.5900e-003	12.2816	0.0285	12.3101	1.2461	0.0262	1.2723		462.2619	462.2619	3.2600e-003		462.3304
Worker	5.4100e-003	0.0105	0.1134	2.8000e-004	0.0228	1.6000e-004	0.0230	6.0500e-003	1.4000e-004	6.1900e-003		23.7067	23.7067	1.1400e-003		23.7307
Total	0.1398	2.0395	1.2586	5.9800e-003	14.7597	0.0344	14.7940	1.5007	0.0316	1.5324		598.1101	598.1101	5.1800e-003		598.2189

3.3 WorkerCommute/WaterImport - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.3 WorkerCommute/WaterImport - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.1395	2.2741	1.2973	6.1800e-003	0.2824	0.0318	0.3142	0.0734	0.0292	0.1027		623.4826	623.4826	4.3300e-003			623.5736
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.1949	0.3781	4.0819	0.0102	0.8208	5.6600e-003	0.8265	0.2176	5.2000e-003	0.2229		853.4396	853.4396	0.0411			854.3036
Total	0.3344	2.6522	5.3792	0.0164	1.1033	0.0375	1.1407	0.2911	0.0344	0.3255		1,476.9221	1,476.9221	0.0455			1,477.8771

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000

3.3 WorkerCommute/WaterImport - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1395	2.2741	1.2973	6.1800e-003	0.2824	0.0318	0.3142	0.0734	0.0292	0.1027		623.4826	623.4826	4.3300e-003		623.5736
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1949	0.3781	4.0819	0.0102	0.8208	5.6600e-003	0.8265	0.2176	5.2000e-003	0.2229		853.4396	853.4396	0.0411		854.3036
Total	0.3344	2.6522	5.3792	0.0164	1.1033	0.0375	1.1407	0.2911	0.0344	0.3255		1,476.9221	1,476.9221	0.0455		1,477.8771

3.3 WorkerCommute/WaterImport - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.3 WorkerCommute/WaterImport - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1310	2.0244	1.2368	6.1700e-003	0.2339	0.0279	0.2619	0.0615	0.0257	0.0872		612.8683	612.8683	4.1300e-003		612.9551
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1738	0.3440	3.6899	0.0102	0.8208	5.4700e-003	0.8263	0.2176	5.0400e-003	0.2227		820.4876	820.4876	0.0381		821.2884
Total	0.3048	2.3684	4.9267	0.0164	1.0547	0.0334	1.0882	0.2792	0.0307	0.3099		1,433.3559	1,433.3559	0.0423		1,434.2435

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000

3.3 WorkerCommute/WaterImport - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.1310	2.0244	1.2368	6.1700e-003	0.2339	0.0279	0.2619	0.0615	0.0257	0.0872		612.8683	612.8683	4.1300e-003			612.9551
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.1738	0.3440	3.6899	0.0102	0.8208	5.4700e-003	0.8263	0.2176	5.0400e-003	0.2227		820.4876	820.4876	0.0381			821.2884
Total	0.3048	2.3684	4.9267	0.0164	1.0547	0.0334	1.0882	0.2792	0.0307	0.3099		1,433.3559	1,433.3559	0.0423			1,434.2435

3.4 Micropile Foundation Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Fugitive Dust					1.9000e-004	0.0000	1.9000e-004	3.0000e-005	0.0000	3.0000e-005			0.0000				0.0000
Off-Road	2.7836	29.4382	15.5496	0.0374		1.4130	1.4130		1.3499	1.3499		3,779.8950	3,779.8950	0.9256			3,799.3328
Total	2.7836	29.4382	15.5496	0.0374	1.9000e-004	1.4130	1.4132	3.0000e-005	1.3499	1.3500		3,779.8950	3,779.8950	0.9256			3,799.3328

3.4 Micropile Foundation Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.7800e-003	0.1432	0.0817	3.9000e-004	3.0985	2.0000e-003	3.1005	0.3106	1.8400e-003	0.3124		39.2495	39.2495	2.7000e-004		39.2553
Vendor	0.1093	1.6200	0.9119	4.5900e-003	44.2698	0.0285	44.2983	4.4395	0.0262	4.4658		462.2619	462.2619	3.2600e-003		462.3304
Worker	0.0108	0.0210	0.2268	5.7000e-004	0.0456	3.1000e-004	0.0459	0.0121	2.9000e-004	0.0124		47.4133	47.4133	2.2900e-003		47.4613
Total	0.1290	1.7841	1.2203	5.5500e-003	47.4139	0.0308	47.4448	4.7622	0.0284	4.7905		548.9248	548.9248	5.8200e-003		549.0469

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.0000e-005	0.0000	9.0000e-005	1.0000e-005	0.0000	1.0000e-005			0.0000			0.0000
Off-Road	2.7836	29.4382	15.5496	0.0374		1.4130	1.4130		1.3499	1.3499	0.0000	3,779.8950	3,779.8950	0.9256		3,799.3328
Total	2.7836	29.4382	15.5496	0.0374	9.0000e-005	1.4130	1.4131	1.0000e-005	1.3499	1.3499	0.0000	3,779.8950	3,779.8950	0.9256		3,799.3328

3.4 Micropile Foundation Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	8.7800e-003	0.1432	0.0817	3.9000e-004	0.8593	2.0000e-003	0.8613	0.0870	1.8400e-003	0.0889		39.2495	39.2495	2.7000e-004		39.2553
Vendor	0.1093	1.6200	0.9119	4.5900e-003	12.2816	0.0285	12.3101	1.2461	0.0262	1.2723		462.2619	462.2619	3.2600e-003		462.3304
Worker	0.0108	0.0210	0.2268	5.7000e-004	0.0456	3.1000e-004	0.0459	0.0121	2.9000e-004	0.0124		47.4133	47.4133	2.2900e-003		47.4613
Total	0.1290	1.7841	1.2203	5.5500e-003	13.1865	0.0308	13.2174	1.3452	0.0284	1.3735		548.9248	548.9248	5.8200e-003		549.0469

3.5 Pier Foundation Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.0000e-003	0.0000	2.0000e-003	3.0000e-004	0.0000	3.0000e-004			0.0000			0.0000
Off-Road	3.3282	35.8244	19.1945	0.0443		1.7387	1.7387		1.6428	1.6428		4,509.3518	4,509.3518	1.1784		4,534.0976
Total	3.3282	35.8244	19.1945	0.0443	2.0000e-003	1.7387	1.7407	3.0000e-004	1.6428	1.6431		4,509.3518	4,509.3518	1.1784		4,534.0976

3.5 Pier Foundation Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0836	1.3634	0.7778	3.7100e-003	29.5096	0.0191	29.5287	2.9577	0.0175	2.9752		373.8051	373.8051	2.6000e-003		373.8597
Vendor	0.1093	1.6200	0.9119	4.5900e-003	44.2698	0.0285	44.2983	4.4395	0.0262	4.4658		462.2619	462.2619	3.2600e-003		462.3304
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.1930	2.9834	1.6897	8.3000e-003	73.7795	0.0476	73.8270	7.3972	0.0438	7.4410		836.0670	836.0670	5.8600e-003		836.1900

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.0000e-004	0.0000	9.0000e-004	1.4000e-004	0.0000	1.4000e-004			0.0000			0.0000
Off-Road	3.3282	35.8244	19.1945	0.0443		1.7387	1.7387		1.6428	1.6428	0.0000	4,509.3518	4,509.3518	1.1784		4,534.0976
Total	3.3282	35.8244	19.1945	0.0443	9.0000e-004	1.7387	1.7396	1.4000e-004	1.6428	1.6430	0.0000	4,509.3518	4,509.3518	1.1784		4,534.0976

3.5 Pier Foundation Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0836	1.3634	0.7778	3.7100e-003	8.1842	0.0191	8.2032	0.8287	0.0175	0.8462		373.8051	373.8051	2.6000e-003			373.8597
Vendor	0.1093	1.6200	0.9119	4.5900e-003	12.2816	0.0285	12.3101	1.2461	0.0262	1.2723		462.2619	462.2619	3.2600e-003			462.3304
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Total	0.1930	2.9834	1.6897	8.3000e-003	20.4658	0.0476	20.5133	2.0748	0.0438	2.1185		836.0670	836.0670	5.8600e-003			836.1900

3.6 Direct Bury and Pole Installation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Fugitive Dust					1.3100e-003	0.0000	1.3100e-003	2.0000e-004	0.0000	2.0000e-004			0.0000				0.0000
Off-Road	4.1445	48.7983	23.0222	0.0571		2.1156	2.1156		1.9693	1.9693		5,891.0264	5,891.0264	1.6933			5,926.5862
Total	4.1445	48.7983	23.0222	0.0571	1.3100e-003	2.1156	2.1170	2.0000e-004	1.9693	1.9695		5,891.0264	5,891.0264	1.6933			5,926.5862

3.6 Direct Bury and Pole Installation - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0496	0.8090	0.4615	2.2000e-003	20.7321	0.0113	20.7434	2.0773	0.0104	2.0877		221.7910	221.7910	1.5400e-003		221.8234
Vendor	0.1093	1.6200	0.9119	4.5900e-003	44.2698	0.0285	44.2983	4.4395	0.0262	4.4658		462.2619	462.2619	3.2600e-003		462.3304
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.1590	2.4289	1.3734	6.7900e-003	65.0019	0.0398	65.0418	6.5169	0.0366	6.5535		684.0529	684.0529	4.8000e-003		684.1538

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.9000e-004	0.0000	5.9000e-004	9.0000e-005	0.0000	9.0000e-005			0.0000			0.0000
Off-Road	4.1445	48.7983	23.0222	0.0571		2.1156	2.1156		1.9693	1.9693	0.0000	5,891.0264	5,891.0264	1.6933		5,926.5862
Total	4.1445	48.7983	23.0222	0.0571	5.9000e-004	2.1156	2.1162	9.0000e-005	1.9693	1.9693	0.0000	5,891.0264	5,891.0264	1.6933		5,926.5862

3.6 Direct Bury and Pole Installation - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0496	0.8090	0.4615	2.2000e-003	5.7482	0.0113	5.7595	0.5815	0.0104	0.5919		221.7910	221.7910	1.5400e-003			221.8234
Vendor	0.1093	1.6200	0.9119	4.5900e-003	12.2816	0.0285	12.3101	1.2461	0.0262	1.2723		462.2619	462.2619	3.2600e-003			462.3304
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Total	0.1590	2.4289	1.3734	6.7900e-003	18.0298	0.0398	18.0696	1.8275	0.0366	1.8641		684.0529	684.0529	4.8000e-003			684.1538

3.6 Direct Bury and Pole Installation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Fugitive Dust					1.3100e-003	0.0000	1.3100e-003	2.0000e-004	0.0000	2.0000e-004			0.0000				0.0000
Off-Road	3.7601	43.7081	22.0280	0.0571		1.8574	1.8574		1.7290	1.7290		5,803.9231	5,803.9231	1.6875			5,839.3605
Total	3.7601	43.7081	22.0280	0.0571	1.3100e-003	1.8574	1.8587	2.0000e-004	1.7290	1.7292		5,803.9231	5,803.9231	1.6875			5,839.3605

3.6 Direct Bury and Pole Installation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0466	0.7201	0.4400	2.2000e-003	112.4906	9.9400e-003	112.5005	11.2570	9.1400e-003	11.2661		218.0152	218.0152	1.4700e-003			218.0461
Vendor	0.1005	1.4325	0.8462	4.5800e-003	44.2698	0.0248	44.2946	4.4395	0.0228	4.4623		454.4404	454.4404	3.0500e-003			454.5044
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Total	0.1471	2.1526	1.2862	6.7800e-003	156.7604	0.0347	156.7951	15.6965	0.0319	15.7284		672.4556	672.4556	4.5200e-003			672.5505

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Fugitive Dust					5.9000e-004	0.0000	5.9000e-004	9.0000e-005	0.0000	9.0000e-005			0.0000			0.0000	
Off-Road	3.7601	43.7081	22.0280	0.0571		1.8574	1.8574		1.7290	1.7290	0.0000	5,803.9231	5,803.9231	1.6875			5,839.3605
Total	3.7601	43.7081	22.0280	0.0571	5.9000e-004	1.8574	1.8580	9.0000e-005	1.7290	1.7291	0.0000	5,803.9231	5,803.9231	1.6875			5,839.3605

3.6 Direct Bury and Pole Installation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0466	0.7201	0.4400	2.2000e-003	31.1491	9.9400e-003	31.1591	3.1364	9.1400e-003	3.1456		218.0152	218.0152	1.4700e-003			218.0461
Vendor	0.1005	1.4325	0.8462	4.5800e-003	12.2816	0.0248	12.3064	1.2461	0.0228	1.2689		454.4404	454.4404	3.0500e-003			454.5044
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Total	0.1471	2.1526	1.2862	6.7800e-003	43.4307	0.0347	43.4654	4.3825	0.0319	4.4144		672.4556	672.4556	4.5200e-003			672.5505

3.7 Trenching for Underground - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	0.4268	3.7964	3.0525	4.3700e-003		0.2790	0.2790		0.2629	0.2629		434.2405	434.2405	0.0988			436.3144
Total	0.4268	3.7964	3.0525	4.3700e-003		0.2790	0.2790		0.2629	0.2629		434.2405	434.2405	0.0988			436.3144

3.7 Trenching for Underground - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0157	0.2427	0.1483	7.4000e-004	5.9019	3.3500e-003	5.9053	0.5915	3.0800e-003	0.5946		73.4883	73.4883	5.0000e-004		73.4987
Vendor	0.1005	1.4325	0.8462	4.5800e-003	44.2698	0.0248	44.2946	4.4395	0.0228	4.4623		454.4404	454.4404	3.0500e-003		454.5044
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.1162	1.6752	0.9945	5.3200e-003	50.1718	0.0281	50.1999	5.0311	0.0259	5.0569		527.9287	527.9287	3.5500e-003		528.0031

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4268	3.7964	3.0525	4.3700e-003		0.2790	0.2790		0.2629	0.2629	0.0000	434.2405	434.2405	0.0988		436.3144
Total	0.4268	3.7964	3.0525	4.3700e-003		0.2790	0.2790		0.2629	0.2629	0.0000	434.2405	434.2405	0.0988		436.3144

3.7 Trenching for Underground - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0157	0.2427	0.1483	7.4000e-004	1.6368	3.3500e-003	1.6402	0.1657	3.0800e-003	0.1688		73.4883	73.4883	5.0000e-004		73.4987
Vendor	0.1005	1.4325	0.8462	4.5800e-003	12.2816	0.0248	12.3064	1.2461	0.0228	1.2689		454.4404	454.4404	3.0500e-003		454.5044
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.1162	1.6752	0.9945	5.3200e-003	13.9184	0.0281	13.9466	1.4118	0.0259	1.4377		527.9287	527.9287	3.5500e-003		528.0031

3.8 Stringing Activities - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.5567	41.1757	20.4385	0.0424		1.7939	1.7939		1.6565	1.6565		4,321.6753	4,321.6753	1.2918		4,348.8029
Total	3.5567	41.1757	20.4385	0.0424		1.7939	1.7939		1.6565	1.6565		4,321.6753	4,321.6753	1.2918		4,348.8029

3.8 Stringing Activities - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.1005	1.4325	0.8462	4.5800e-003	44.2698	0.0248	44.2946	4.4395	0.0228	4.4623		454.4404	454.4404	3.0500e-003			454.5044
Worker	9.6600e-003	0.0191	0.2050	5.7000e-004	0.0456	3.0000e-004	0.0459	0.0121	2.8000e-004	0.0124		45.5826	45.5826	2.1200e-003			45.6271
Total	0.1102	1.4516	1.0512	5.1500e-003	44.3154	0.0251	44.3405	4.4516	0.0231	4.4747		500.0230	500.0230	5.1700e-003			500.1315

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	3.5567	41.1757	20.4385	0.0424		1.7939	1.7939		1.6565	1.6565	0.0000	4,321.6753	4,321.6753	1.2918			4,348.8029
Total	3.5567	41.1757	20.4385	0.0424		1.7939	1.7939		1.6565	1.6565	0.0000	4,321.6753	4,321.6753	1.2918			4,348.8029

3.8 Stringing Activities - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.1005	1.4325	0.8462	4.5800e-003	12.2816	0.0248	12.3064	1.2461	0.0228	1.2689		454.4404	454.4404	3.0500e-003			454.5044
Worker	9.6600e-003	0.0191	0.2050	5.7000e-004	0.0456	3.0000e-004	0.0459	0.0121	2.8000e-004	0.0124		45.5826	45.5826	2.1200e-003			45.6271
Total	0.1102	1.4516	1.0512	5.1500e-003	12.3272	0.0251	12.3523	1.2582	0.0231	1.2812		500.0230	500.0230	5.1700e-003			500.1315

3.9 Demobilization/Cleanup - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Fugitive Dust					0.3957	0.0000	0.3957	0.0427	0.0000	0.0427			0.0000			0.0000	
Off-Road	1.9726	20.9580	10.9942	0.0222		1.0172	1.0172		0.9358	0.9358		2,268.9781	2,268.9781	0.6952			2,283.5775
Total	1.9726	20.9580	10.9942	0.0222	0.3957	1.0172	1.4128	0.0427	0.9358	0.9785		2,268.9781	2,268.9781	0.6952			2,283.5775

3.9 Demobilization/Cleanup - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.1005	1.4325	0.8462	4.5800e-003	44.2698	0.0248	44.2946	4.4395	0.0228	4.4623		454.4404	454.4404	3.0500e-003			454.5044
Worker	9.6600e-003	0.0191	0.2050	5.7000e-004	0.0456	3.0000e-004	0.0459	0.0121	2.8000e-004	0.0124		45.5826	45.5826	2.1200e-003			45.6271
Total	0.1102	1.4516	1.0512	5.1500e-003	44.3154	0.0251	44.3405	4.4516	0.0231	4.4747		500.0230	500.0230	5.1700e-003			500.1315

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.1780	0.0000	0.1780	0.0192	0.0000	0.0192			0.0000			0.0000
Off-Road	1.9726	20.9580	10.9942	0.0222		1.0172	1.0172		0.9358	0.9358	0.0000	2,268.9781	2,268.9781	0.6952		2,283.5775
Total	1.9726	20.9580	10.9942	0.0222	0.1780	1.0172	1.1952	0.0192	0.9358	0.9550	0.0000	2,268.9781	2,268.9781	0.6952		2,283.5775

3.9 Demobilization/Cleanup - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.1005	1.4325	0.8462	4.5800e-003	12.2816	0.0248	12.3064	1.2461	0.0228	1.2689		454.4404	454.4404	3.0500e-003			454.5044
Worker	9.6600e-003	0.0191	0.2050	5.7000e-004	0.0456	3.0000e-004	0.0459	0.0121	2.8000e-004	0.0124		45.5826	45.5826	2.1200e-003			45.6271
Total	0.1102	1.4516	1.0512	5.1500e-003	12.3272	0.0251	12.3523	1.2582	0.0231	1.2812		500.0230	500.0230	5.1700e-003			500.1315

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510423	0.073380	0.192408	0.132453	0.036550	0.005219	0.012745	0.022253	0.001862	0.002079	0.006550	0.000609	0.003468

5.0 Energy Detail

4.4 Fleet Mix

Historical Energy Use: N

5.1 Mitigation Measures Energy

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Unmitigated	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation

TL649 Wood-to-Steel
San Diego County, Winter

1.0 Project Characteristics

1.1 Land Usage

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2017
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	720.49	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Because the existing line is being rebuilt, no land use types have been entered.

Construction Phase - Construction schedule taken from Chapter 3 - Project Description

Off-road Equipment - Construction equipment taken from Attachment 3-D

Off-road Equipment - Construction equipment taken from Attachment 3-D

Off-road Equipment - Default values set to a quantity of zero. Equipment taken from Chapter 3 - Project Description.

Off-road Equipment - Construction equipment taken from Attachment 3-D

Off-road Equipment - Construction equipment taken from Attachment 3-D

Off-road Equipment - Construction equipment taken from Attachment 3-D

Off-road Equipment - Defaults set to zero.

Off-road Equipment - Construction equipment taken from Attachment 3-D

Off-road Equipment - Defaults set to zero.

Trips and VMT - Values calculated based upon data in Chapter 3 - Project Description

On-road Fugitive Dust - Assume that all worker trips are paved. Assume that 80 percent of vendor and hauling miles are paved.

Grading - A maximum of 9.7 acres per day will be disturbed during the staging yard development/access road improvement process and restoration.

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	184.00
tblConstructionPhase	NumDays	0.00	60.00
tblConstructionPhase	NumDays	0.00	6.00
tblConstructionPhase	NumDays	0.00	40.00
tblConstructionPhase	NumDays	0.00	63.00
tblConstructionPhase	NumDays	0.00	90.00
tblConstructionPhase	NumDays	0.00	26.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00

tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	NumDaysWeek	5.00	6.00
tblConstructionPhase	PhaseEndDate	5/6/2017	4/29/2017
tblConstructionPhase	PhaseEndDate	3/31/2017	3/29/2017
tblConstructionPhase	PhaseEndDate	6/15/2017	11/19/2016
tblConstructionPhase	PhaseEndDate	2/1/2017	12/16/2016
tblConstructionPhase	PhaseEndDate	3/31/2017	1/17/2017
tblConstructionPhase	PhaseEndDate	4/28/2017	4/29/2017
tblConstructionPhase	PhaseStartDate	10/5/2016	9/28/2016
tblConstructionPhase	PhaseStartDate	1/21/2017	1/19/2017
tblConstructionPhase	PhaseStartDate	4/30/2017	10/5/2016
tblConstructionPhase	PhaseStartDate	11/20/2016	10/5/2016
tblConstructionPhase	PhaseStartDate	12/17/2016	10/5/2016
tblConstructionPhase	PhaseStartDate	3/30/2017	3/31/2017
tblGrading	AcresOfGrading	3.75	9.70
tblGrading	AcresOfGrading	9.75	9.70
tblGrading	MaterialExported	0.00	55.00
tblGrading	MaterialExported	0.00	898.00
tblGrading	MaterialExported	0.00	838.80
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
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tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00

tbloffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tbloffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
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tbloffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tbloffRoadEquipment	PhaseName		Direct Bury and Pole Installation
tbloffRoadEquipment	PhaseName		Stringing Activities
tbloffRoadEquipment	PhaseName		Micropile Foundation Construction
tbloffRoadEquipment	PhaseName		Pier Foundation Construction
tbloffRoadEquipment	PhaseName		Direct Bury and Pole Installation
tbloffRoadEquipment	PhaseName		Micropile Foundation Construction
tbloffRoadEquipment	PhaseName		Pier Foundation Construction
tbloffRoadEquipment	PhaseName		Direct Bury and Pole Installation
tbloffRoadEquipment	PhaseName		Stringing Activities
tbloffRoadEquipment	PhaseName		Micropile Foundation Construction
tbloffRoadEquipment	PhaseName		Pier Foundation Construction
tbloffRoadEquipment	PhaseName		Direct Bury and Pole Installation
tbloffRoadEquipment	PhaseName		Direct Bury and Pole Installation
tbloffRoadEquipment	PhaseName		Micropile Foundation Construction
tbloffRoadEquipment	PhaseName		Pier Foundation Construction
tbloffRoadEquipment	PhaseName		Micropile Foundation Construction
tbloffRoadEquipment	PhaseName		Pier Foundation Construction
tbloffRoadEquipment	PhaseName		Direct Bury and Pole Installation
tbloffRoadEquipment	PhaseName		Stringing Activities
tbloffRoadEquipment	PhaseName		Demobilization/Cleanup
tbloffRoadEquipment	PhaseName		Demobilization/Cleanup
tbloffRoadEquipment	PhaseName		Stringing Activities
tbloffRoadEquipment	PhaseName		Micropile Foundation Construction

tblOffRoadEquipment	PhaseName		Pier Foundation Construction
tblOffRoadEquipment	PhaseName		Direct Bury and Pole Installation
tblOffRoadEquipment	PhaseName		Trenching for Underground
tblOffRoadEquipment	PhaseName		Micropile Foundation Construction
tblOffRoadEquipment	PhaseName		Pier Foundation Construction
tblOffRoadEquipment	PhaseName		Trenching for Underground
tblOffRoadEquipment	UsageHours	4.00	7.00
tblOffRoadEquipment	UsageHours	8.00	5.00
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tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOnRoadDust	HaulingPercentPave	100.00	80.00
tblOnRoadDust	HaulingPercentPave	100.00	80.00
tblOnRoadDust	HaulingPercentPave	100.00	80.00
tblOnRoadDust	HaulingPercentPave	100.00	80.00
tblOnRoadDust	HaulingPercentPave	100.00	80.00
tblOnRoadDust	HaulingPercentPave	100.00	80.00
tblOnRoadDust	HaulingPercentPave	100.00	80.00
tblOnRoadDust	VendorPercentPave	100.00	80.00
tblOnRoadDust	VendorPercentPave	100.00	80.00
tblOnRoadDust	VendorPercentPave	100.00	80.00
tblOnRoadDust	VendorPercentPave	100.00	80.00
tblOnRoadDust	VendorPercentPave	100.00	80.00
tblOnRoadDust	VendorPercentPave	100.00	80.00
tblOnRoadDust	VendorPercentPave	100.00	80.00
tblOnRoadDust	VendorPercentPave	100.00	80.00
tblProjectCharacteristics	OperationalYear	2014	2017

tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	HaulingTripNumber	0.00	6.00
tblTripsAndVMT	HaulingTripNumber	0.00	1,023.00
tblTripsAndVMT	HaulingTripNumber	7.00	14.00
tblTripsAndVMT	HaulingTripNumber	112.00	210.00
tblTripsAndVMT	HaulingTripNumber	105.00	178.00
tblTripsAndVMT	HaulingTripNumber	0.00	2.00
tblTripsAndVMT	HaulingVehicleClass		HHDT
tblTripsAndVMT	HaulingVehicleClass		HHDT
tblTripsAndVMT	HaulingVehicleClass		HHDT
tblTripsAndVMT	HaulingVehicleClass		HHDT
tblTripsAndVMT	HaulingVehicleClass		HHDT
tblTripsAndVMT	HaulingVehicleClass		HHDT
tblTripsAndVMT	HaulingVehicleClass		HHDT
tblTripsAndVMT	HaulingVehicleClass		HHDT
tblTripsAndVMT	VendorTripLength	6.60	30.00
tblTripsAndVMT	VendorTripLength	6.60	30.00
tblTripsAndVMT	VendorTripLength	6.60	30.00
tblTripsAndVMT	VendorTripLength	6.60	30.00
tblTripsAndVMT	VendorTripLength	6.60	30.00
tblTripsAndVMT	VendorTripLength	6.60	30.00
tblTripsAndVMT	VendorTripLength	6.60	30.00
tblTripsAndVMT	VendorTripLength	6.60	30.00
tblTripsAndVMT	VendorVehicleClass		HDT_Mix
tblTripsAndVMT	VendorVehicleClass		HDT_Mix
tblTripsAndVMT	VendorVehicleClass		HDT_Mix
tblTripsAndVMT	VendorVehicleClass		HDT_Mix
tblTripsAndVMT	VendorVehicleClass		HDT_Mix

tblTripsAndVMT	VendorVehicleClass		HDT_Mix
tblTripsAndVMT	VendorVehicleClass		HDT_Mix
tblTripsAndVMT	VendorVehicleClass		HDT_Mix
tblTripsAndVMT	WorkerTripLength	16.80	30.00
tblTripsAndVMT	WorkerTripLength	16.80	30.00
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tblTripsAndVMT	WorkerTripNumber	20.00	1.00
tblTripsAndVMT	WorkerTripNumber	0.00	36.00
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tblTripsAndVMT	WorkerTripNumber	33.00	0.00
tblTripsAndVMT	WorkerTripNumber	38.00	0.00
tblTripsAndVMT	WorkerTripNumber	5.00	0.00
tblTripsAndVMT	WorkerTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	10.00	2.00
tblTripsAndVMT	WorkerVehicleClass		LD_Mix
tblTripsAndVMT	WorkerVehicleClass		LD_Mix
tblTripsAndVMT	WorkerVehicleClass		LD_Mix
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tblTripsAndVMT	WorkerVehicleClass		LD_Mix
tblTripsAndVMT	WorkerVehicleClass		LD_Mix
tblTripsAndVMT	WorkerVehicleClass		LD_Mix

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	11.1252	124.2687	68.3409	0.1751	187.3021	5.4234	192.7255	18.9679	5.1055	24.0734	0.0000	17,666.0433	17,666.0433	3.8594	0.0000	17,747.0907
2017	4.5447	50.6794	30.8840	0.0796	157.8165	2.1596	159.7422	15.9759	1.9993	17.7677	0.0000	7,856.9504	7,856.9504	1.7344	0.0000	7,893.3719
Total	15.6699	174.9481	99.2249	0.2548	345.1186	7.5830	352.4676	34.9438	7.1048	41.8410	0.0000	25,522.9937	25,522.9937	5.5938	0.0000	25,640.4626

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2016	11.1252	124.2687	68.3409	0.1751	52.7869	5.4234	58.2103	5.5388	5.1055	10.6443	0.0000	17,666.0433	17,666.0433	3.8594	0.0000	17,747.0906
2017	4.5447	50.6794	30.8840	0.0796	44.4861	2.1596	46.4117	4.6617	1.9993	6.4535	0.0000	7,856.9504	7,856.9504	1.7344	0.0000	7,893.3719
Total	15.6699	174.9481	99.2249	0.2548	97.2730	7.5830	104.6220	10.2005	7.1048	17.0978	0.0000	25,522.9936	25,522.9936	5.5938	0.0000	25,640.4625

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	71.81	0.00	70.32	70.81	0.00	59.14	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Staging Yard Setup	Site Preparation	9/28/2016	10/4/2016	6	6	Staging Yard Setup
2	Worker Commute/Water Import	Building Construction	9/28/2016	4/29/2017	6	184	Worker Commute/Water Import
3	Micropile Foundation Construction	Site Preparation	10/5/2016	11/19/2016	6	40	Micropile Foundation Construction
4	Pier Foundation Construction	Site Preparation	10/5/2016	12/16/2016	6	63	Pier Foundation Construction
5	Direct Bury and Pole Installation	Site Preparation	10/5/2016	1/17/2017	6	90	Direct Bury and Pole Installation
6	Trenching for Underground	Trenching	1/18/2017	1/20/2017	6	3	Trenching for Underground
7	Stringing Activities	Building Construction	1/19/2017	3/29/2017	6	60	Stringing Activities
8	Demobilization/Cleanup	Site Preparation	3/31/2017	4/29/2017	6	26	Demobilization/Cleanup

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Staging Yard Setup	Graders	2	5.00	174	0.41
Staging Yard Setup	Off-Highway Trucks	2	4.00	400	0.38
Staging Yard Setup	Other Construction Equipment	2	4.00	171	0.42

Staging Yard Setup	Skid Steer Loaders	1	5.00	64	0.37
Staging Yard Setup	Tractors/Loaders/Backhoes	1	4.00	97	0.37
WorkerCommute/WaterImport	Cranes	0	4.00	226	0.29
WorkerCommute/WaterImport	Forklifts	0	6.00	89	0.20
WorkerCommute/WaterImport	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Micropile Foundation Construction	Air Compressors	2	3.00	78	0.48
Micropile Foundation Construction	Bore/Drill Rigs	2	7.00	205	0.50
Micropile Foundation Construction	Cranes	2	3.00	226	0.29
Micropile Foundation Construction	Generator Sets	2	4.00	84	0.74
Micropile Foundation Construction	Graders	0	8.00	174	0.41
Micropile Foundation Construction	Off-Highway Trucks	1	3.00	400	0.38
Micropile Foundation Construction	Pumps	1	2.00	84	0.74
Micropile Foundation Construction	Rough Terrain Forklifts	2	2.00	100	0.40
Micropile Foundation Construction	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Pier Foundation Construction	Air Compressors	2	3.00	78	0.48
Pier Foundation Construction	Bore/Drill Rigs	2	7.00	205	0.50
Pier Foundation Construction	Cranes	2	3.00	226	0.29
Pier Foundation Construction	Generator Sets	2	3.00	84	0.74
Pier Foundation Construction	Graders	0	8.00	174	0.41
Pier Foundation Construction	Off-Highway Trucks	2	3.00	400	0.38
Pier Foundation Construction	Pumps	1	2.00	84	0.74
Pier Foundation Construction	Rough Terrain Forklifts	2	3.00	100	0.40
Pier Foundation Construction	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Direct Bury and Pole Installation	Aerial Lifts	3	5.00	62	0.31
Direct Bury and Pole Installation	Air Compressors	2	3.00	78	0.48
Direct Bury and Pole Installation	Bore/Drill Rigs	3	7.00	205	0.50
Direct Bury and Pole Installation	Cranes	3	5.00	226	0.29
Direct Bury and Pole Installation	Excavators	0	0.00	162	0.38

Direct Bury and Pole Installation	Graders	0	8.00	174	0.41
Direct Bury and Pole Installation	Off-Highway Trucks	2	4.00	400	0.38
Direct Bury and Pole Installation	Pumps	1	2.00	84	0.74
Direct Bury and Pole Installation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Trenching for Underground	Pumps	1	2.00	84	0.74
Trenching for Underground	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Stringing Activities	Aerial Lifts	3	8.00	62	0.31
Stringing Activities	Concrete/Industrial Saws	1	2.00	81	0.73
Stringing Activities	Cranes	3	7.00	226	0.29
Stringing Activities	Forklifts	0	6.00	89	0.20
Stringing Activities	Off-Highway Trucks	2	5.00	400	0.38
Stringing Activities	Other Construction Equipment	1	6.00	171	0.42
Stringing Activities	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Demobilization/Cleanup	Graders	1	6.00	174	0.41
Demobilization/Cleanup	Off-Highway Trucks	1	3.00	400	0.38
Demobilization/Cleanup	Off-Highway Trucks	1	6.00	400	0.38
Demobilization/Cleanup	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Staging Yard Setup	8	1.00	5.00	6.00	30.00	30.00	30.00	LD_Mix	HDT_Mix	HHDT
Worker Commute/Water Transport	0	36.00		1,023.00	30.00	30.00	30.00	LD_Mix	HDT_Mix	HHDT
Micropile Foundation Construction	12	2.00	5.00	14.00	30.00	30.00	30.00	LD_Mix	HDT_Mix	HHDT
Pier Foundation Construction	13	0.00	5.00	210.00	30.00	30.00	30.00	LD_Mix	HDT_Mix	HHDT
Direct Bury and Pole Installation	15	0.00	5.00	178.00	30.00	30.00	30.00	LD_Mix	HDT_Mix	HHDT
Trenching for Underground	2	0.00	5.00	2.00	30.00	30.00	30.00	LD_Mix	HDT_Mix	HHDT
Stringing Activities	10	2.00	5.00	0.00	30.00	30.00	30.00	LD_Mix	HDT_Mix	HHDT
Demobilization/Cleanups	4	2.00	5.00	0.00	30.00	30.00	30.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

- Use Soil Stabilizer
- Water Exposed Area
- Reduce Vehicle Speed on Unpaved Roads

3.2 Staging Yard Setup - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.7145	0.0000	1.7145	0.1851	0.0000	0.1851			0.0000			0.0000
Off-Road	3.1212	33.7460	17.5402	0.0299		1.7027	1.7027		1.5665	1.5665		3,110.9644	3,110.9644	0.9384		3,130.6704
Total	3.1212	33.7460	17.5402	0.0299	1.7145	1.7027	3.4172	0.1851	1.5665	1.7516		3,110.9644	3,110.9644	0.9384		3,130.6704

3.2 Staging Yard Setup - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0273	0.4226	0.2914	1.1100e-003	8.8529	5.7300e-003	8.8586	0.8873	5.2700e-003	0.8926		111.9648	111.9648	7.9000e-004		111.9813
Vendor	0.1173	1.6727	1.1012	4.5800e-003	44.2698	0.0286	44.2984	4.4395	0.0263	4.4658		461.3473	461.3473	3.2800e-003		461.4162
Worker	5.5400e-003	0.0118	0.1053	2.7000e-004	0.0228	1.6000e-004	0.0230	6.0500e-003	1.4000e-004	6.1900e-003		22.2469	22.2469	1.1400e-003		22.2709
Total	0.1502	2.1071	1.4979	5.9600e-003	53.1455	0.0345	53.1800	5.3329	0.0317	5.3646		595.5590	595.5590	5.2100e-003		595.6685

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7715	0.0000	0.7715	0.0833	0.0000	0.0833			0.0000			0.0000
Off-Road	3.1212	33.7460	17.5402	0.0299		1.7027	1.7027		1.5665	1.5665	0.0000	3,110.9644	3,110.9644	0.9384		3,130.6703
Total	3.1212	33.7460	17.5402	0.0299	0.7715	1.7027	2.4742	0.0833	1.5665	1.6498	0.0000	3,110.9644	3,110.9644	0.9384		3,130.6703

3.2 Staging Yard Setup - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0273	0.4226	0.2914	1.1100e-003	2.4553	5.7300e-003	2.4610	0.2486	5.2700e-003	0.2539		111.9648	111.9648	7.9000e-004		111.9813
Vendor	0.1173	1.6727	1.1012	4.5800e-003	12.2816	0.0286	12.3102	1.2461	0.0263	1.2724		461.3473	461.3473	3.2800e-003		461.4162
Worker	5.5400e-003	0.0118	0.1053	2.7000e-004	0.0228	1.6000e-004	0.0230	6.0500e-003	1.4000e-004	6.1900e-003		22.2469	22.2469	1.1400e-003		22.2709
Total	0.1502	2.1071	1.4979	5.9600e-003	14.7597	0.0345	14.7941	1.5007	0.0317	1.5324		595.5590	595.5590	5.2100e-003		595.6685

3.3 WorkerCommute/WaterImport - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000		0.0000

3.3 WorkerCommute/WaterImport - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1518	2.3497	1.6203	6.1800e-003	0.2824	0.0319	0.3143	0.0734	0.0293	0.1027		622.4998	622.4998	4.3700e-003		622.5916
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1995	0.4241	3.7905	9.5900e-003	0.8208	5.6600e-003	0.8265	0.2176	5.2000e-003	0.2229		800.8894	800.8894	0.0411		801.7534
Total	0.3513	2.7738	5.4108	0.0158	1.1033	0.0375	1.1408	0.2911	0.0345	0.3256		1,423.3892	1,423.3892	0.0455		1,424.3450

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000

3.3 WorkerCommute/WaterImport - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.1518	2.3497	1.6203	6.1800e-003	0.2824	0.0319	0.3143	0.0734	0.0293	0.1027		622.4998	622.4998	4.3700e-003			622.5916
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.1995	0.4241	3.7905	9.5900e-003	0.8208	5.6600e-003	0.8265	0.2176	5.2000e-003	0.2229		800.8894	800.8894	0.0411			801.7534
Total	0.3513	2.7738	5.4108	0.0158	1.1033	0.0375	1.1408	0.2911	0.0345	0.3256		1,423.3892	1,423.3892	0.0455			1,424.3450

3.3 WorkerCommute/WaterImport - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000			0.0000

3.3 WorkerCommute/WaterImport - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.1421	2.0916	1.5531	6.1700e-003	0.2339	0.0280	0.2619	0.0615	0.0258	0.0873		611.9009	611.9009	4.1700e-003			611.9885
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Worker	0.1770	0.3858	3.4048	9.5900e-003	0.8208	5.4700e-003	0.8263	0.2176	5.0400e-003	0.2227		769.9170	769.9170	0.0381			770.7178
Total	0.3191	2.4774	4.9579	0.0158	1.0547	0.0335	1.0882	0.2792	0.0308	0.3100		1,381.8178	1,381.8178	0.0423			1,382.7063

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000
Total	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000

3.3 WorkerCommute/WaterImport - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1421	2.0916	1.5531	6.1700e-003	0.2339	0.0280	0.2619	0.0615	0.0258	0.0873		611.9009	611.9009	4.1700e-003		611.9885
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1770	0.3858	3.4048	9.5900e-003	0.8208	5.4700e-003	0.8263	0.2176	5.0400e-003	0.2227		769.9170	769.9170	0.0381		770.7178
Total	0.3191	2.4774	4.9579	0.0158	1.0547	0.0335	1.0882	0.2792	0.0308	0.3100		1,381.8178	1,381.8178	0.0423		1,382.7063

3.4 Micropile Foundation Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9000e-004	0.0000	1.9000e-004	3.0000e-005	0.0000	3.0000e-005			0.0000			0.0000
Off-Road	2.7836	29.4382	15.5496	0.0374		1.4130	1.4130		1.3499	1.3499		3,779.8950	3,779.8950	0.9256		3,799.3328
Total	2.7836	29.4382	15.5496	0.0374	1.9000e-004	1.4130	1.4132	3.0000e-005	1.3499	1.3500		3,779.8950	3,779.8950	0.9256		3,799.3328

3.4 Micropile Foundation Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.5500e-003	0.1479	0.1020	3.9000e-004	3.0985	2.0000e-003	3.1005	0.3106	1.8400e-003	0.3124		39.1877	39.1877	2.8000e-004		39.1935
Vendor	0.1173	1.6727	1.1012	4.5800e-003	44.2698	0.0286	44.2984	4.4395	0.0263	4.4658		461.3473	461.3473	3.2800e-003		461.4162
Worker	0.0111	0.0236	0.2106	5.3000e-004	0.0456	3.1000e-004	0.0459	0.0121	2.9000e-004	0.0124		44.4939	44.4939	2.2900e-003		44.5419
Total	0.1380	1.8442	1.4138	5.5000e-003	47.4139	0.0309	47.4449	4.7622	0.0284	4.7906		545.0288	545.0288	5.8500e-003		545.1515

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.0000e-005	0.0000	9.0000e-005	1.0000e-005	0.0000	1.0000e-005			0.0000			0.0000
Off-Road	2.7836	29.4382	15.5496	0.0374		1.4130	1.4130		1.3499	1.3499	0.0000	3,779.8950	3,779.8950	0.9256		3,799.3328
Total	2.7836	29.4382	15.5496	0.0374	9.0000e-005	1.4130	1.4131	1.0000e-005	1.3499	1.3499	0.0000	3,779.8950	3,779.8950	0.9256		3,799.3328

3.4 Micropile Foundation Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	9.5500e-003	0.1479	0.1020	3.9000e-004	0.8593	2.0000e-003	0.8613	0.0870	1.8400e-003	0.0889		39.1877	39.1877	2.8000e-004		39.1935
Vendor	0.1173	1.6727	1.1012	4.5800e-003	12.2816	0.0286	12.3102	1.2461	0.0263	1.2724		461.3473	461.3473	3.2800e-003		461.4162
Worker	0.0111	0.0236	0.2106	5.3000e-004	0.0456	3.1000e-004	0.0459	0.0121	2.9000e-004	0.0124		44.4939	44.4939	2.2900e-003		44.5419
Total	0.1380	1.8442	1.4138	5.5000e-003	13.1865	0.0309	13.2175	1.3452	0.0284	1.3736		545.0288	545.0288	5.8500e-003		545.1515

3.5 Pier Foundation Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.0000e-003	0.0000	2.0000e-003	3.0000e-004	0.0000	3.0000e-004			0.0000			0.0000
Off-Road	3.3282	35.8244	19.1945	0.0443		1.7387	1.7387		1.6428	1.6428		4,509.3518	4,509.3518	1.1784		4,534.0976
Total	3.3282	35.8244	19.1945	0.0443	2.0000e-003	1.7387	1.7407	3.0000e-004	1.6428	1.6431		4,509.3518	4,509.3518	1.1784		4,534.0976

3.5 Pier Foundation Construction - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0910	1.4087	0.9714	3.7000e-003	29.5096	0.0191	29.5287	2.9577	0.0176	2.9753		373.2159	373.2159	2.6200e-003		373.2710
Vendor	0.1173	1.6727	1.1012	4.5800e-003	44.2698	0.0286	44.2984	4.4395	0.0263	4.4658		461.3473	461.3473	3.2800e-003		461.4162
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.2083	3.0814	2.0726	8.2800e-003	73.7795	0.0477	73.8271	7.3972	0.0439	7.4411		834.5632	834.5632	5.9000e-003		834.6872

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					9.0000e-004	0.0000	9.0000e-004	1.4000e-004	0.0000	1.4000e-004			0.0000			0.0000
Off-Road	3.3282	35.8244	19.1945	0.0443		1.7387	1.7387		1.6428	1.6428	0.0000	4,509.3518	4,509.3518	1.1784		4,534.0976
Total	3.3282	35.8244	19.1945	0.0443	9.0000e-004	1.7387	1.7396	1.4000e-004	1.6428	1.6430	0.0000	4,509.3518	4,509.3518	1.1784		4,534.0976

3.5 Pier Foundation Construction - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0910	1.4087	0.9714	3.7000e-003	8.1842	0.0191	8.2033	0.8287	0.0176	0.8463		373.2159	373.2159	2.6200e-003			373.2710
Vendor	0.1173	1.6727	1.1012	4.5800e-003	12.2816	0.0286	12.3102	1.2461	0.0263	1.2724		461.3473	461.3473	3.2800e-003			461.4162
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Total	0.2083	3.0814	2.0726	8.2800e-003	20.4658	0.0477	20.5134	2.0748	0.0439	2.1186		834.5632	834.5632	5.9000e-003			834.6872

3.6 Direct Bury and Pole Installation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Fugitive Dust					1.3100e-003	0.0000	1.3100e-003	2.0000e-004	0.0000	2.0000e-004			0.0000				0.0000
Off-Road	4.1445	48.7983	23.0222	0.0571		2.1156	2.1156		1.9693	1.9693		5,891.0264	5,891.0264	1.6933			5,926.5862
Total	4.1445	48.7983	23.0222	0.0571	1.3100e-003	2.1156	2.1170	2.0000e-004	1.9693	1.9695		5,891.0264	5,891.0264	1.6933			5,926.5862

3.6 Direct Bury and Pole Installation - 2016

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0540	0.8358	0.5764	2.2000e-003	20.7321	0.0113	20.7434	2.0773	0.0104	2.0878		221.4415	221.4415	1.5600e-003		221.4741
Vendor	0.1173	1.6727	1.1012	4.5800e-003	44.2698	0.0286	44.2984	4.4395	0.0263	4.4658		461.3473	461.3473	3.2800e-003		461.4162
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.1713	2.5085	1.6776	6.7800e-003	65.0019	0.0399	65.0419	6.5169	0.0367	6.5536		682.7887	682.7887	4.8400e-003		682.8903

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.9000e-004	0.0000	5.9000e-004	9.0000e-005	0.0000	9.0000e-005			0.0000			0.0000
Off-Road	4.1445	48.7983	23.0222	0.0571		2.1156	2.1156		1.9693	1.9693	0.0000	5,891.0264	5,891.0264	1.6933		5,926.5862
Total	4.1445	48.7983	23.0222	0.0571	5.9000e-004	2.1156	2.1162	9.0000e-005	1.9693	1.9693	0.0000	5,891.0264	5,891.0264	1.6933		5,926.5862

3.6 Direct Bury and Pole Installation - 2016

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0540	0.8358	0.5764	2.2000e-003	5.7482	0.0113	5.7595	0.5815	0.0104	0.5919		221.4415	221.4415	1.5600e-003		221.4741
Vendor	0.1173	1.6727	1.1012	4.5800e-003	12.2816	0.0286	12.3102	1.2461	0.0263	1.2724		461.3473	461.3473	3.2800e-003		461.4162
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.1713	2.5085	1.6776	6.7800e-003	18.0298	0.0399	18.0697	1.8275	0.0367	1.8642		682.7887	682.7887	4.8400e-003		682.8903

3.6 Direct Bury and Pole Installation - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.3100e-003	0.0000	1.3100e-003	2.0000e-004	0.0000	2.0000e-004			0.0000			0.0000
Off-Road	3.7601	43.7081	22.0280	0.0571		1.8574	1.8574		1.7290	1.7290		5,803.9231	5,803.9231	1.6875		5,839.3605
Total	3.7601	43.7081	22.0280	0.0571	1.3100e-003	1.8574	1.8587	2.0000e-004	1.7290	1.7292		5,803.9231	5,803.9231	1.6875		5,839.3605

3.6 Direct Bury and Pole Installation - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0506	0.7440	0.5525	2.1900e-003	112.4906	9.9600e-003	112.5006	11.2570	9.1600e-003	11.2661		217.6711	217.6711	1.4800e-003			217.7023
Vendor	0.1076	1.4788	1.0299	4.5800e-003	44.2698	0.0248	44.2947	4.4395	0.0228	4.4624		453.5384	453.5384	3.0700e-003			453.6029
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Total	0.1582	2.2229	1.5824	6.7700e-003	156.7604	0.0348	156.7952	15.6965	0.0320	15.7285		671.2095	671.2095	4.5500e-003			671.3051

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Fugitive Dust					5.9000e-004	0.0000	5.9000e-004	9.0000e-005	0.0000	9.0000e-005			0.0000				0.0000
Off-Road	3.7601	43.7081	22.0280	0.0571		1.8574	1.8574		1.7290	1.7290	0.0000	5,803.9231	5,803.9231	1.6875			5,839.3605
Total	3.7601	43.7081	22.0280	0.0571	5.9000e-004	1.8574	1.8580	9.0000e-005	1.7290	1.7291	0.0000	5,803.9231	5,803.9231	1.6875			5,839.3605

3.6 Direct Bury and Pole Installation - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0506	0.7440	0.5525	2.1900e-003	31.1491	9.9600e-003	31.1591	3.1364	9.1600e-003	3.1456		217.6711	217.6711	1.4800e-003		217.7023
Vendor	0.1076	1.4788	1.0299	4.5800e-003	12.2816	0.0248	12.3064	1.2461	0.0228	1.2689		453.5384	453.5384	3.0700e-003		453.6029
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.1582	2.2229	1.5824	6.7700e-003	43.4307	0.0348	43.4655	4.3825	0.0320	4.4145		671.2095	671.2095	4.5500e-003		671.3051

3.7 Trenching for Underground - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4268	3.7964	3.0525	4.3700e-003		0.2790	0.2790		0.2629	0.2629		434.2405	434.2405	0.0988		436.3144
Total	0.4268	3.7964	3.0525	4.3700e-003		0.2790	0.2790		0.2629	0.2629		434.2405	434.2405	0.0988		436.3144

3.7 Trenching for Underground - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0170	0.2508	0.1862	7.4000e-004	5.9019	3.3600e-003	5.9053	0.5915	3.0900e-003	0.5946		73.3723	73.3723	5.0000e-004		73.3828
Vendor	0.1076	1.4788	1.0299	4.5800e-003	44.2698	0.0248	44.2947	4.4395	0.0228	4.4624		453.5384	453.5384	3.0700e-003		453.6029
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.1247	1.7296	1.2161	5.3200e-003	50.1718	0.0282	50.1999	5.0311	0.0259	5.0570		526.9107	526.9107	3.5700e-003		526.9856

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4268	3.7964	3.0525	4.3700e-003		0.2790	0.2790		0.2629	0.2629	0.0000	434.2405	434.2405	0.0988		436.3144
Total	0.4268	3.7964	3.0525	4.3700e-003		0.2790	0.2790		0.2629	0.2629	0.0000	434.2405	434.2405	0.0988		436.3144

3.7 Trenching for Underground - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0170	0.2508	0.1862	7.4000e-004	1.6368	3.3600e-003	1.6402	0.1657	3.0900e-003	0.1688		73.3723	73.3723	5.0000e-004		73.3828
Vendor	0.1076	1.4788	1.0299	4.5800e-003	12.2816	0.0248	12.3064	1.2461	0.0228	1.2689		453.5384	453.5384	3.0700e-003		453.6029
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Total	0.1247	1.7296	1.2161	5.3200e-003	13.9184	0.0282	13.9466	1.4118	0.0259	1.4377		526.9107	526.9107	3.5700e-003		526.9856

3.8 Stringing Activities - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.5567	41.1757	20.4385	0.0424		1.7939	1.7939		1.6565	1.6565		4,321.6753	4,321.6753	1.2918		4,348.8029
Total	3.5567	41.1757	20.4385	0.0424		1.7939	1.7939		1.6565	1.6565		4,321.6753	4,321.6753	1.2918		4,348.8029

3.8 Stringing Activities - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.1076	1.4788	1.0299	4.5800e-003	44.2698	0.0248	44.2947	4.4395	0.0228	4.4624		453.5384	453.5384	3.0700e-003			453.6029
Worker	9.8300e-003	0.0214	0.1892	5.3000e-004	0.0456	3.0000e-004	0.0459	0.0121	2.8000e-004	0.0124		42.7732	42.7732	2.1200e-003			42.8177
Total	0.1175	1.5003	1.2190	5.1100e-003	44.3154	0.0251	44.3406	4.4516	0.0231	4.4748		496.3115	496.3115	5.1900e-003			496.4205

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	3.5567	41.1757	20.4385	0.0424		1.7939	1.7939		1.6565	1.6565	0.0000	4,321.6753	4,321.6753	1.2918			4,348.8029
Total	3.5567	41.1757	20.4385	0.0424		1.7939	1.7939		1.6565	1.6565	0.0000	4,321.6753	4,321.6753	1.2918			4,348.8029

3.8 Stringing Activities - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.1076	1.4788	1.0299	4.5800e-003	12.2816	0.0248	12.3064	1.2461	0.0228	1.2689		453.5384	453.5384	3.0700e-003			453.6029
Worker	9.8300e-003	0.0214	0.1892	5.3000e-004	0.0456	3.0000e-004	0.0459	0.0121	2.8000e-004	0.0124		42.7732	42.7732	2.1200e-003			42.8177
Total	0.1175	1.5003	1.2190	5.1100e-003	12.3272	0.0251	12.3524	1.2582	0.0231	1.2813		496.3115	496.3115	5.1900e-003			496.4205

3.9 Demobilization/Cleanup - 2017

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Fugitive Dust					0.3957	0.0000	0.3957	0.0427	0.0000	0.0427			0.0000			0.0000	
Off-Road	1.9726	20.9580	10.9942	0.0222		1.0172	1.0172		0.9358	0.9358		2,268.9781	2,268.9781	0.6952			2,283.5775
Total	1.9726	20.9580	10.9942	0.0222	0.3957	1.0172	1.4128	0.0427	0.9358	0.9785		2,268.9781	2,268.9781	0.6952			2,283.5775

3.9 Demobilization/Cleanup - 2017

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.1076	1.4788	1.0299	4.5800e-003	44.2698	0.0248	44.2947	4.4395	0.0228	4.4624		453.5384	453.5384	3.0700e-003			453.6029
Worker	9.8300e-003	0.0214	0.1892	5.3000e-004	0.0456	3.0000e-004	0.0459	0.0121	2.8000e-004	0.0124		42.7732	42.7732	2.1200e-003			42.8177
Total	0.1175	1.5003	1.2190	5.1100e-003	44.3154	0.0251	44.3406	4.4516	0.0231	4.4748		496.3115	496.3115	5.1900e-003			496.4205

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Fugitive Dust					0.1780	0.0000	0.1780	0.0192	0.0000	0.0192			0.0000				0.0000
Off-Road	1.9726	20.9580	10.9942	0.0222		1.0172	1.0172		0.9358	0.9358	0.0000	2,268.978 1	2,268.978 1	0.6952			2,283.577 5
Total	1.9726	20.9580	10.9942	0.0222	0.1780	1.0172	1.1952	0.0192	0.9358	0.9550	0.0000	2,268.978 1	2,268.978 1	0.6952			2,283.577 5

3.9 Demobilization/Cleanup - 2017

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000			0.0000
Vendor	0.1076	1.4788	1.0299	4.5800e-003	12.2816	0.0248	12.3064	1.2461	0.0228	1.2689		453.5384	453.5384	3.0700e-003			453.6029
Worker	9.8300e-003	0.0214	0.1892	5.3000e-004	0.0456	3.0000e-004	0.0459	0.0121	2.8000e-004	0.0124		42.7732	42.7732	2.1200e-003			42.8177
Total	0.1175	1.5003	1.2190	5.1100e-003	12.3272	0.0251	12.3524	1.2582	0.0231	1.2813		496.3115	496.3115	5.1900e-003			496.4205

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510423	0.073380	0.192408	0.132453	0.036550	0.005219	0.012745	0.022253	0.001862	0.002079	0.006550	0.000609	0.003468

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Unmitigated	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Vegetation

TL649 Wood-to-Steel San Diego County, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Demobilization/Cleanup	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Direct Bury and Pole Installation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Micropile Foundation Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pier Foundation Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Staging Yard Setup	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Stringing Activities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Trenching for Underground	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WorkerCommute/WaterImport	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Aerial Lifts	Diesel	No Change	0	6	No Change	0.00
Air Compressors	Diesel	No Change	0	6	No Change	0.00
Bore/Drill Rigs	Diesel	No Change	0	7	No Change	0.00
Concrete/Industrial Saws	Diesel	No Change	0	1	No Change	0.00
Cranes	Diesel	No Change	0	10	No Change	0.00
Excavators	Diesel	No Change	0	0	No Change	0.00
Forklifts	Diesel	No Change	0	0	No Change	0.00
Generator Sets	Diesel	No Change	0	4	No Change	0.00
Graders	Diesel	No Change	0	3	No Change	0.00
Off-Highway Trucks	Diesel	No Change	0	11	No Change	0.00
Other Construction Equipment	Diesel	No Change	0	3	No Change	0.00
Pumps	Diesel	No Change	0	4	No Change	0.00
Rough Terrain Forklifts	Diesel	No Change	0	4	No Change	0.00
Skid Steer Loaders	Diesel	No Change	0	1	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	4	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Unmitigated tons/yr							Unmitigated mt/yr					
Aerial Lifts	8.99000E-003	1.48380E-001	1.88630E-001	2.90000E-004	5.62000E-003	5.17000E-003	0.00000E+000	2.68954E+001	2.68954E+001	8.19000E-003	0.00000E+000	2.70674E+001
Air Compressors	3.53000E-002	2.27610E-001	1.81690E-001	2.90000E-004	1.88100E-002	1.88100E-002	0.00000E+000	2.46389E+001	2.46389E+001	2.88000E-003	0.00000E+000	2.46994E+001
Bore/Drill Rigs	7.18500E-002	1.07992E+000	4.25510E-001	1.82000E-003	3.16500E-002	2.91200E-002	0.00000E+000	1.71251E+002	1.71251E+002	5.17300E-002	0.00000E+000	1.72337E+002
Concrete/Industrial Saws	4.36000E-003	3.19600E-002	2.81200E-002	5.00000E-005	2.30000E-003	2.30000E-003	0.00000E+000	4.03242E+000	4.03242E+000	3.50000E-004	0.00000E+000	4.03987E+000
Cranes	1.38650E-001	1.64420E+000	5.81200E-001	1.14000E-003	7.40500E-002	6.81200E-002	0.00000E+000	1.06545E+002	1.06545E+002	3.23700E-002	0.00000E+000	1.07225E+002
Excavators	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Generator Sets	2.78800E-002	2.10920E-001	1.65910E-001	2.90000E-004	1.47800E-002	1.47800E-002	0.00000E+000	2.46572E+001	2.46572E+001	2.26000E-003	0.00000E+000	2.47046E+001
Graders	1.31100E-002	1.32930E-001	6.56500E-002	8.00000E-005	7.47000E-003	6.87000E-003	0.00000E+000	7.84886E+000	7.84886E+000	2.39000E-003	0.00000E+000	7.89914E+000
Off-Highway Trucks	1.19490E-001	1.36415E+000	6.41540E-001	1.73000E-003	5.11100E-002	4.70200E-002	0.00000E+000	1.61536E+002	1.61536E+002	4.90700E-002	0.00000E+000	1.62567E+002
Other Construction Equipment	1.62600E-002	1.78700E-001	1.07880E-001	1.60000E-004	9.44000E-003	8.68000E-003	0.00000E+000	1.45597E+001	1.45597E+001	4.45000E-003	0.00000E+000	1.46533E+001
Pumps	1.62400E-002	1.19480E-001	9.45600E-002	1.60000E-004	8.64000E-003	8.64000E-003	0.00000E+000	1.38476E+001	1.38476E+001	1.33000E-003	0.00000E+000	1.38755E+001
Rough Terrain Forklifts	7.15000E-003	9.10900E-002	7.92700E-002	1.20000E-004	5.06000E-003	4.65000E-003	0.00000E+000	1.09121E+001	1.09121E+001	3.29000E-003	0.00000E+000	1.09812E+001
Skid Steer Loaders	2.10000E-004	2.77000E-003	2.61000E-003	0.00000E+000	1.50000E-004	1.40000E-004	0.00000E+000	3.59670E-001	3.59670E-001	1.10000E-004	0.00000E+000	3.61950E-001
Tractors/Loaders/Backhoes	2.71800E-002	2.60090E-001	1.95370E-001	2.50000E-004	1.99200E-002	1.83300E-002	0.00000E+000	2.37288E+001	2.37288E+001	7.18000E-003	0.00000E+000	2.38796E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Mitigated tons/yr							Mitigated mt/yr					
Aerial Lifts	8.99000E-003	1.48380E-001	1.88630E-001	2.90000E-004	5.62000E-003	5.17000E-003	0.00000E+000	2.68954E+001	2.68954E+001	8.19000E-003	0.00000E+000	2.70674E+001
Air Compressors	3.53000E-002	2.27610E-001	1.81690E-001	2.90000E-004	1.88100E-002	1.88100E-002	0.00000E+000	2.46389E+001	2.46389E+001	2.88000E-003	0.00000E+000	2.46994E+001
Bore/Drill Rigs	7.18500E-002	1.07992E+000	4.25510E-001	1.82000E-003	3.16500E-002	2.91200E-002	0.00000E+000	1.71251E+002	1.71251E+002	5.17300E-002	0.00000E+000	1.72337E+002
Concrete/Industrial Saws	4.36000E-003	3.19600E-002	2.81200E-002	5.00000E-005	2.30000E-003	2.30000E-003	0.00000E+000	4.03242E+000	4.03242E+000	3.50000E-004	0.00000E+000	4.03987E+000
Cranes	1.38650E-001	1.64419E+000	5.81200E-001	1.14000E-003	7.40500E-002	6.81200E-002	0.00000E+000	1.06545E+002	1.06545E+002	3.23700E-002	0.00000E+000	1.07225E+002
Excavators	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Generator Sets	2.78800E-002	2.10920E-001	1.65910E-001	2.90000E-004	1.47800E-002	1.47800E-002	0.00000E+000	2.46572E+001	2.46572E+001	2.26000E-003	0.00000E+000	2.47045E+001
Graders	1.31100E-002	1.32930E-001	6.56500E-002	8.00000E-005	7.47000E-003	6.87000E-003	0.00000E+000	7.84885E+000	7.84885E+000	2.39000E-003	0.00000E+000	7.89913E+000
Off-Highway Trucks	1.19490E-001	1.36415E+000	6.41540E-001	1.73000E-003	5.11100E-002	4.70200E-002	0.00000E+000	1.61536E+002	1.61536E+002	4.90700E-002	0.00000E+000	1.62566E+002
Other Construction Equipment	1.62600E-002	1.78700E-001	1.07880E-001	1.60000E-004	9.44000E-003	8.68000E-003	0.00000E+000	1.45597E+001	1.45597E+001	4.45000E-003	0.00000E+000	1.46532E+001
Pumps	1.62400E-002	1.19480E-001	9.45600E-002	1.60000E-004	8.64000E-003	8.64000E-003	0.00000E+000	1.38476E+001	1.38476E+001	1.33000E-003	0.00000E+000	1.38754E+001
Rough Terrain Forklifts	7.15000E-003	9.10900E-002	7.92700E-002	1.20000E-004	5.06000E-003	4.65000E-003	0.00000E+000	1.09120E+001	1.09120E+001	3.29000E-003	0.00000E+000	1.09812E+001
Skid Steer Loaders	2.10000E-004	2.77000E-003	2.61000E-003	0.00000E+000	1.50000E-004	1.40000E-004	0.00000E+000	3.59670E-001	3.59670E-001	1.10000E-004	0.00000E+000	3.61950E-001
Tractors/Loaders/Balkhoes	2.71800E-002	2.60090E-001	1.95370E-001	2.50000E-004	1.99200E-002	1.83300E-002	0.00000E+000	2.37288E+001	2.37288E+001	7.18000E-003	0.00000E+000	2.38796E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Aerial Lifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.11543E-006	1.11543E-006	0.00000E+000	0.00000E+000	1.47779E-006
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.21759E-006	1.21759E-006	0.00000E+000	0.00000E+000	1.21460E-006
Bore/Drill Rigs	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.22627E-006	1.22627E-006	0.00000E+000	0.00000E+000	1.21854E-006
Concrete/Industrial Saws	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Cranes	0.00000E+000	6.08199E-006	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.22014E-006	1.22014E-006	0.00000E+000	0.00000E+000	1.11914E-006
Excavators	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Generator Sets	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.21668E-006	1.21668E-006	0.00000E+000	0.00000E+000	8.09567E-007
Graders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.27407E-006	1.27407E-006	0.00000E+000	0.00000E+000	1.26596E-006
Off-Highway Trucks	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.17621E-006	1.17621E-006	0.00000E+000	0.00000E+000	1.23026E-006
Other Construction Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	6.86825E-007	6.86825E-007	0.00000E+000	0.00000E+000	1.36488E-006
Pumps	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	7.22148E-007	7.22148E-007	0.00000E+000	0.00000E+000	1.44139E-006
Rough Terrain Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.83283E-006	1.83283E-006	0.00000E+000	0.00000E+000	9.10649E-007
Skid Steer Loaders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Tractors/Loaders/Balckhoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.26429E-006	1.26429E-006	0.00000E+000	0.00000E+000	1.25630E-006

Fugitive Dust Mitigation

Yes/No Mitigation Measure Mitigation Input Mitigation Input Mitigation Input

Yes	Soil Stabilizer for unpaved Roads	PM10 Reduction	55.00	PM2.5 Reduction	55.00		
No	Replace Ground Cover of Area Disturbed	PM10 Reduction	0.00	PM2.5 Reduction	0.00		

Yes	Water Exposed Area	PM10 Reduction	55.00	PM2.5 Reduction	55.00	Frequency (per day)	2.00
No	Unpaved Road Mitigation	Moisture Content %	0.00	Vehicle Speed (mph)	15.00		
No	Clean Paved Road	% PM Reduction	0.00				

Phase	Source	Unmitigated		Mitigated		Percent Reduction	
		PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Demobilization/Cleanup	Fugitive Dust	0.01	0.00	0.00	0.00	0.55	0.55
Demobilization/Cleanup	Roads	0.51	0.05	0.14	0.01	0.72	0.72
Direct Bury and Pole Installation	Fugitive Dust	0.00	0.00	0.00	0.00	0.58	0.50
Direct Bury and Pole Installation	Roads	3.18	0.32	0.88	0.09	0.72	0.72
Micropile Foundation Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Micropile Foundation Construction	Roads	0.84	0.08	0.24	0.02	0.72	0.72
Pier Foundation Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.50	1.00
Pier Foundation Construction	Roads	2.07	0.21	0.57	0.06	0.72	0.72
Staging Yard Setup	Fugitive Dust	0.01	0.00	0.00	0.00	0.55	0.55
Staging Yard Setup	Roads	0.14	0.01	0.04	0.00	0.72	0.72
Stringing Activities	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Stringing Activities	Roads	1.18	0.12	0.33	0.03	0.72	0.72
Trenching for Underground	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Trenching for Underground	Roads	0.07	0.01	0.02	0.00	0.72	0.72
WorkerCommute/WaterImport	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
WorkerCommute/WaterImport	Roads	0.10	0.03	0.10	0.03	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.00	0.15		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			

No	Neighborhood Enhancements	Improve Pedestrian Network			
No	Neighborhood Enhancements	Provide Traffic Calming Measures			
No	Neighborhood Enhancements	Implement NEV Network	0.00		
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00		
No	Parking Policy Pricing	Limit Parking Supply	0.00		
No	Parking Policy Pricing	Unbundle Parking Costs	0.00		
No	Parking Policy Pricing	On-street Market Pricing	0.00		
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00		
No	Transit Improvements	Provide BRT System	0.00		
No	Transit Improvements	Expand Transit Network	0.00		
No	Transit Improvements	Increase Transit Frequency	0.00		
	Transit Improvements	Transit Improvements Subtotal	0.00		
		Land Use and Site Enhancement Subtotal	0.00		
No	Commute	Implement Trip Reduction Program			
No	Commute	Transit Subsidy			
No	Commute	Implement Employee Parking "Cash Out"			
No	Commute	Workplace Parking Charge			
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00		
No	Commute	Market Commute Trip Reduction Option	0.00		
No	Commute	Employee Vanpool/Shuttle	0.00		2.00
No	Commute	Provide Ride Sharing Program			
	Commute	Commute Subtotal	0.00		

No	School Trip	Implement School Bus Program	0.00		
		Total VMT Reduction	0.00		

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	250.00
No	Use Low VOC Paint (Residential Exterior)	250.00
No	Use Low VOC Paint (Non-residential Interior)	250.00
No	Use Low VOC Paint (Non-residential Exterior)	250.00
No	% Electric Lawnmower	
No	% Electric Leafblower	
No	% Electric Chainsaw	

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24		
No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00

DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy		
No	Use Reclaimed Water		
No	Use Grey Water		
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction		
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape		

Solid Waste Mitigation

Mitigation Measures	Input Value
Institute Recycling and Composting Services Percent Reduction in Waste Disposed	

ATTACHMENT G: REVISED CONSTRUCTION EQUIPMENT SUMMARY

ATTACHMENT G: REVISED CONSTRUCTION EQUIPMENT SUMMARY

Vehicle/Equipment Type ¹	Use	Vehicle/ Equipment Category (On-/Off-Road)	On-Road Vehicle Classification	Off-Road Equipment Requirements		On-Road Vehicle Requirements		
				Hours of Daily Operation	Quantity Required	Trips Per Day	Total Trips	Trip Length (miles)
<i>Project Wide²</i>								
Worker Commute Vehicle	Transport workers to the Proposed Project site	On-Road	Worker	--	--	36	--	30
Water Truck	Deliver water to the Proposed Project site	On-Road	Haul	--	--	--	1,023	30
<i>Staging Yard Setup/Road Reestablishing</i>								
Grader	Grade staging yard and access roads	Off-Road	--	5	2	--	--	--
Loader	Load dump trucks and stockpile	Off-Road	--	4	1	--	--	--
Water Truck	Suppress dust	Off-Road	--	4	2	--	--	--
Mower	Clear vegetation	Off-Road	--	4	2	--	--	--
Tractor Trailer Unit	Deliver materials to site	On-Road	Vendor	--	--	5	--	30
Dump Truck	Remove materials from site	On-Road	Haul	--	--	--	6	30
Crew Truck	Deliver workers to site	On-Road	Worker	--	--	1	--	30
Skid Steer	Place/move materials	Off-Road	--	5	1	--	--	--
<i>Micropile Foundation Construction</i>								
Water Truck	Suppress dust	Off-Road	--	3	1	--	--	--
Drilling Rig	Excavate for foundations	Off-Road	--	7	2	--	--	--
Air Compressor	Power tools	Off-Road	--	3	2	--	--	--
Forklift	Move materials	Off-Road	--	2	2	--	--	--
Crane	Place materials	Off-Road	--	3	2	--	--	--
Tractor Trailer Unit	Deliver materials to site	On-Road	Vendor	--	--	5	--	30
Crew Truck	Deliver workers to site	On-Road	Worker	--	--	2	--	30
Generator	Power tools	Off-Road	--	4	2	--	--	--
Concrete Truck	Deliver concrete to site	On-Road	Haul	--	--	--	7	30
Dump Truck	Remove materials from site	On-Road	Haul	--	--	--	7	30
Submersible Pump	Dewater excavations	Off-Road	--	2	1	--	--	--

¹ Vehicles/equipment shaded in grey have been added since the filing of the Proponent's Environmental Assessment.

² To simplify the modeling effort, a construction phase which runs the duration of the Proposed Project was added to evaluate emissions associated with personal vehicle trips and the delivery of water to the project site. The model assumes that up to 36 workers will travel to the site each day and a total of 1,023 trips will be required to deliver water to the staging areas. Once on site, the water trucks have been modeled as off-road trucks.

Vehicle/Equipment Type ¹	Use	Vehicle/ Equipment Category (On-/Off-Road)	On-Road Vehicle Classification	Off-Road Equipment Requirements		On-Road Vehicle Requirements		
				Hours of Daily Operation	Quantity Required	Trips Per Day	Total Trips	Trip Length (miles)
<i>Pier Foundation Construction</i>								
Water Truck	Suppress dust	Off-Road	--	3	2	--	--	--
Drilling Rig	Excavate for foundations	Off-Road	--	7	2	--	--	--
Air Compressor	Power tools	Off-Road	--	3	2	--	--	--
Boom truck	Place materials	Off-Road	--	3	2	--	--	--
Forklift	Place materials	Off-Road	--	3	2	--	--	--
Generator	Power tools	Off-Road	--	4	2	--	--	--
Concrete Truck	Deliver concrete to site	On-Road	Haul	--	--	--	105	30
Dump Truck	Remove materials from site	On-Road	Haul	--	--	--	105	30
Tractor Trailer Unit	Deliver materials to site	On-Road	Vendor	--	--	5	--	30
Backhoe	Excavate for foundations and potential blasting	Off-Road	--	7	1	--	--	--
Submersible Pump	Dewater excavations	Off-Road	--	2	1	--	--	--
<i>Direct-Bury Construction and Pole Installation</i>								
Water Truck	Suppress dust	Off-Road	--	4	2	--	--	--
Drilling Rig	Excavate for direct buried poles	Off-Road	--	7	3	--	--	--
Air Compressor	Power tools	Off-Road	--	3	2	--	--	--
Tractor Trailer Unit	Deliver materials to site	On-Road	Vendor	--	--	5	--	30
Bucket Truck	Access pole tops	Off-Road	--	5	3	--	--	--
Crane	Place materials	Off-Road	--	5	3	--	--	--
Dump Truck	Remove materials from site	On-Road	Haul	--	--	--	89	30
Concrete Truck	Deliver backfill material to site	On-Road	Haul	--	--	--	89	30
Backhoe	Excavate and load material	Off-Road	--	7	1	--	--	--
Submersible Pump	Dewater excavations	Off-Road	--	2	1	--	--	--
<i>Trenching for Installation of Underground Cables</i>								
Backhoe	Excavate and load materials	Off-Road	--	7	1	--	--	--
Dump Truck	Remove materials from site	On-Road	Haul	--	--	--	1	30
Concrete Truck	Deliver backfill material to site	On-Road	Haul	--	--	--	1	30
Tractor Trailer Unit	Deliver materials to site	On-Road	Vendor	--	--	5	--	30
Submersible Pump	Dewater excavations	Off-Road	--	2	1	--	--	--

Vehicle/Equipment Type ¹	Use	Vehicle/ Equipment Category (On-/Off-Road)	On-Road Vehicle Classification	Off-Road Equipment Requirements		On-Road Vehicle Requirements		
				Hours of Daily Operation	Quantity Required	Trips Per Day	Total Trips	Trip Length (miles)
<i>Stringing Activities</i>								
Water Truck	Suppress dust	Off-Road	--	5	2	--	--	--
Wire Truck	Deliver conductor reels	On-Road	Worker	--	--	1	--	30
Pulling Rig	Install/remove conductor	Off-Road	--	6	1	--	--	--
Boom Truck	Load and move materials	Off-Road	--	7	3	--	--	--
Bucket Truck	Access pole tops	Off-Road	--	8	3	--	--	--
Pickup	Deliver workers to site	On-Road	Worker	--	--	1	--	30
Tractor Trailer Unit	Deliver materials to site	On-Road	Vendor	--	--	5	--	30
Chainsaw	Cut poles	Off-Road	--	2	1	--	--	--
Pole Puller ³	Remove poles	Off-Road	--	2	1	--	--	--
<i>Demobilization/Cleanup</i>								
Grader	Restore temporarily disturbed areas	Off-Road	--	6	1	--	--	--
Loader	Load dump trucks and stockpile	Off-Road	--	7	1	--	--	--
Water Truck	Suppress dust	Off-Road	--	3	1	--	--	--
Crew Truck	Deliver workers to site	On-Road	Worker	--	--	1	--	30
Pickup	Deliver workers to site	On-Road	Worker	--	--	1	--	30
Tractor Trailer Unit	Deliver materials to site	On-Road	Vendor	--	--	5	--	30
Spray Truck	Assist with revegetation	Off-Road	--	6	1	--	--	--

³ The pole puller is a hydraulically operated piece of equipment that will be powered by the boom truck.

ATTACHMENT H: ON-ROAD VEHICLE TRIP GENERATION CALCULATIONS

ATTACHMENT H: ON-ROAD VEHICLE TRIP GENERATION CALCULATIONS

Haul vehicle trips were assumed to be required to facilitate the following construction phases of the Proposed Project:

- Micro-Pile Foundation Construction
- Pier Foundation Construction
- Direct Buried Construction and Pole Installation
- Trenching for Installation of Underground Cable

The tables that follow provide the calculations and assumptions used to identify the haul trip requirements for each of these phases. Table 1: Pole Excavation and Concrete/Backfill Requirements outlines the anticipated excavation volume, by installation type, for the approximately 116 new poles that will be installed. Table 1: Pole Excavation and Concrete/Backfill Requirements also outlines the anticipated concrete and/or backfill material that would be used to create the micro-pile and pier foundations. The backfill requirements to complete the direct bury pole installation have also been included.

Table 1: Pole Excavation and Concrete/Backfill Requirements

Metric	Micro-Pile Foundation	Pier Foundation	Direct Buried
Quantity	7	21	89
Excavations per Location	16	1	1
<i>Excavation Requirements</i>			
Excavation Diameter (feet)	0.75	7	4.5
Excavation Depth (feet)	30	30	16
Excavation Volume per Location (CY)	7.9	42.8	9.5
Total Excavation Volume (CY)	55.0	898.0	838.8
<i>Concrete/Backfill Requirements</i>			
Fill Diameter (feet)	0.75	7	Not Applicable
Fill Depth (feet)	32	32	16
Fill Volume per Location (CY)	8.4	45.6	6.5
Total Fill Volume (CY)	58.6	957.8	579.9

Notes:

- All measurements are approximates. Actual measurements will be confirmed during final engineering.
- All foundations assumed to be constructed to a final height of approximately two feet above grade.
- Micro-pile and pier foundations are assumed to be constructed using concrete, direct bury excavations will be backfilled with concrete.
- The backfill for direct buried poles was based on a 2.5-foot diameter pole, when measured at the base.

Table 2: Export and Import Truck Trip Requirements outlines the calculations used to determine the total number of truck trips required to complete the export and import processes during the pole installation process.

Table 2: Export and Import Truck Trip Requirements

Metric	Micro-Pile Foundation	Pier Foundation	Direct Buried
Quantity	7	21	89
<i>Export</i>			
Locations per Day	1	1	2
Volume per Location (CY)	7.9	42.8	9.5
Trips per Day	1	5	2
Total Trips	7	105	89
<i>Import</i>			
Locations per Day	1	1	1
Volume per Location (CY)	8.4	45.6	6.5
Trips per Day	1	5	1
Total Trips	7	105	89

Notes:

- All excavated material will be hauled off site
- The excavation work for each micro-pile and pier foundation location will be completed in a single day
- The excavation work at each direct bury location will be completed in half of a day
- The delivery and placement of concrete or backfill material will be completed in one day at each location
- Trucks performing the export and import process will have a total capacity of 10 CY

Table 3: Distribution Duct Bank Dimensions provides the approximate excavation dimensions and finished dimensions for the planned distribution duct banks that will be installed.

Table 3: Distribution Duct Bank Dimensions

Metric	Excavation Dimensions	Finished Dimensions
Width (feet)	2	1.5
Depth (feet)	5	1.5
Length (feet)	120	120
Total Volume (CY)	44.4	10.0

Based upon the installation of two, five-inch conduits within the finished duct bank, it was assumed that the total amount of material required to complete the duct bank would be 8.8 CY. As a result, approximately 10.0 CY of spoil will be hauled off site and approximately 34.4 CY of

excavated material will be reused to backfill the trench. It was assumed that the trucks used to import and export this material will have a total capacity of approximately 10 CY. As a result, three trucks will be required to deliver each type of material to the site.

ATTACHMENT I: IMPORTED AND EXPORTED MATERIALS

ATTACHMENT I: IMPORTED AND EXPORTED MATERIALS

Activity	Number of Poles or Activity Areas Disturbed	Area Per Pole/Activity Site (square feet)	Material Export per Pole/Activity Site (cubic yard [CY])	Material Import per Pole/Activity Site (CY)
Direct Bury	89	314	3.5 to 9.5 CY of soil per pole	5.9 CY of concrete per pole 1.2 CY of gravel per pole
Micro-Pile Foundation	7	1,260	0.9 to 7.9 CY of soil per pole	0.9 to 7.9 CY of concrete per pole
Pier Foundation	21	5,625	42.8 CY of soil per pole	42.8 CY of concrete per pole
Access Road Modification	4	1,000	Not Applicable (NA)	4.6 CY of gravel per activity site
Turnarounds	10	Varies	NA	NA
Underground Trenches	2	Varies	10 CY of soil (total)	8.8 CY of concrete (total)
Stringing Sites	28	Varies	NA	NA
Guard Structures	2	72	NA	NA
Staging Areas	2	Varies	NA	NA
Pulling Site	1	1,875	NA	NA

ATTACHMENT J: REVISED BIOLOGICAL IMPACTS TABLES

ATTACHMENT J: REVISED BIOLOGICAL IMPACTS TABLES

Table 4.4 6: Anticipated Impacts to Vegetation Communities

Vegetation Community	Total within Impact Area (acres)	Impact Area (acres)	
		Permanent	Temporary
Bare Ground	7.74	0.01	7.73
Disturbed Areas	6.47	0.02	6.45
Landscape/Ornamental	0.15	<0.01	0.15
Urban and Developed	28.05	<0.01	28.05
California Sagebrush-California Buckwheat Scrub*	1.56	0.01	1.54
Coast Prickly Pear Scrub*	0.44	<0.01	0.44
Coast Prickly Pear Scrub (disturbed)*	0.04	<0.01	0.04
Lemonade Berry Stand*	<0.01	0.00	<0.01
Annual Brome Grassland	2.94	0.02	2.92
Purple Needlegrass Grassland*	0.47	0.01	0.47
Tamarisk Thickets	0.23	0.00	0.23
Total	48.11	0.08	48.03

Note: Numbers may not add up due to rounding.

Table 4.4 7: Anticipated Impacts to Critical Habitat

Species	Impacts to Critical Habitat within the Proposed Project Area (acres)		
	Permanent	Temporary	Total
San Diego fairy shrimp	<0.01	0.28	0.28
QCB	0.01	0.92	0.93
Otay tarplant	0.03	4.32	4.35
Total¹	0.04	5.52	5.56

Note: Numbers may not add up due to rounding.

¹ Figures may not add up due to rounding.

Table 4.4 8: Anticipated Impacts to Sensitive Natural Communities

Vegetation Community	Total within Impact Area (acres)	Impact Area (acres)	
		Permanent	Temporary
Scrub and Chaparral			
California Sagebrush-California Buckwheat Scrub	1.56	0.01	1.54
Coast Prickly Pear Scrub	0.44	<0.01	0.44
Coast Prickly Pear Scrub (disturbed)	0.04	<0.01	0.04
Lemonade Berry Stand	<0.01	0.00	<0.01
Grasslands, Meadows, and Other Herbaceous Communities			
Purple Needlegrass Grassland	0.47	0.01	0.47
Total	2.52	0.02	2.49

Note: Numbers may not add up due to rounding.

ATTACHMENT K: NATIVE AMERICAN CONSULTATION LOG

ATTACHMENT K: NATIVE AMERICAN CORRESPONDENCE LOG

Tribal Affiliation	Individual Contact	Method of Contact	Date of Contact	Response Received
California Native American Heritage Commission	Katy Sanchez 1550 Harbor Blvd, Suite 100, West Sacramento, CA 95691	Email: nahc@nahc.ca.gov	5/28/2015	Yes (6/22/2015): No known sacred sites within the project area. Recommends contacting local tribal entities.
Barona Group of the Capitan Grande	Clifford LaChappa 1095 Barona Rd. Lakeside, CA 92040	1. Mail 2. Phone	6/26/2015 7/23/2015	Left message with receptionist
Ewiiapaayp Tribal Office	Robert Pinto Sr. 4054 Willows Rd. Alpine, CA 91901	1. Mail 2. Phone	6/26/2015 7/23/2015	Left voicemail
Sycuan Band of the Kumeyaay Nation	Cody J. Martinez 1 Kwaaypaay Court El Cajon, CA 92019	1. Mail 2. Phone	6/26/2015 7/23/2015	Left voicemail, see Land Conservancy below
Viejas Band of Kumeyaay Indians	Anthony R. Pico P.O. Box 908 Alpine, CA 91903	1. Mail 2. Phone	6/26/2015 7/23/2015	No longer chairman, left message with receptionist for current chairman Robert Welch
Kumeyaay Cultural Historic Committee	Ron Christman 56 Viejas Grade Rd Alpine, CA 91901	1. Mail 2. Phone	6/26/2015 7/23/2015	No message or answering service
Jamul Indian Village	Raymond Hunter P.O. Box 612 Jamul, CA 91935	1. Mail 2. Phone	6/26/2015 7/23/2015	Left voicemail for new Chair, Erica Pinto
Inaja Band of Mission Indians	Rebecca Osuna 2005 S. Escondido Blvd. Escondido, CA 92025	1. Mail 2. Phone	6/26/2015 7/23/2015	No message or answering service

Tribal Affiliation	Individual Contact	Method of Contact	Date of Contact	Response Received
Kumeyaay Cultural Repatriation Committee	Steve Banegas 1095 Barona Rd. Lakeside, CA 92040	1. Mail 2. Phone	6/26/2015 7/23/2015	Left voicemail
Barona Group of the Capitan Grande	Sheilla Alvarez 1095 Barona Rd Lakeside, CA 92040	1. Mail 2. Phone	6/26/2015 7/23/2015	Left voicemail
Viejas Band of the Kumeyaay Indians	Julie Hagen P.O. Box 908 Alpine, CA 91903	1. Mail 2. Phone	6/26/2015 7/23/2015	Left voicemail
Ewiiapaayp Tribal Office	Will Micklin 4054 Willows Rd. Alpine, CA 91901	1. Mail 2. Phone	6/26/2015 7/23/2015	Left voicemail
Sycuan Band of the Kumeyaay Nation	Lisa Haws 1 Kwaaypaay Court El Cajon, CA 92019	1. Mail 2. Phone	6/26/2015 7/23/2015	Left voicemail, see Land Conservancy below
Kumeyaay Diegueno Land Conservancy	Mr. Kim Bactad 2 Kwaaypaay Court El Cajon, CA 92019	1. Mail 2. Phone	6/26/2015 7/23/2015	Spoke with Lisa at the conservancy, she has the mailed letter but has not reviewed the project yet.
Inter-Tribal Cultural Resource Protection Council	Frank Brown 240 Brown Rd. Alpine, CA 91901	1. Mail 2. Phone	6/26/2015 7/23/2015	Left voicemail
Kumeyaay Cultural Repatriation Committee	Bernice Paipa P.O. Box 937 Boulevard, CA 91905	1. Mail	6/26/2015 7/23/2015	No phone number listed

ATTACHMENT L: FEDERAL AVIATION ADMINISTRATION DETERMINATIONS



1423 South Patrick Drive
Satellite Beach, FL 32937
(321) 777-1266 Fax: (321) 777-8595
<http://www.AirspaceUSA.com>

Memo

To: Joe Zulauf
Date: November 24, 2014
From: Ashley Haupt
Subject: TL649F Structure Review - Executive Summary

A preliminary analysis of the TL649F Structure Review was conducted in order to determine how many sites will require Notice to the Federal Aviation Administration (FAA). One hundred and thirty five sites were evaluated based upon the data provided by the client.

According to FAR Part 77.9 Notice Requirements, thirty four of the sites exceed the Notice Criteria. An Excel spreadsheet was provided to detail each point based upon FAR Part 77 Notice Requirements. None of the sites exceed the Electromagnetic Intereference (EMI) Criteria or IFR Notice Criteria of the United States. The closest navaid of concern is VOR/DME TIJ located in Tijuana, Mexico. The terrain between the closest pole (2014-APS-2580-OE) slopes down to TIJ. The terrain, trees, existing buildings and boarder security fence provide sufficient shielding to assure the TIJ VOR/DME will be unaffected by the replacement poles.

Approved,

Ashley M Haupt, Airspace Technician

Clyde J Pittman, Aerospace Engineer

* Federal Airways & Airspace *
* Summary Report: Alteration Of Existing Structure *
* Utility Pole *

File: 2014-APS-2444-OE

Site Name: TL649F/CIR260_Z253200

Location: Chula Vista, CA

Latitude: 32°-35'-53.62"

Longitude: 116°-56'-30.05"

SITE ELEVATION AMSL.....298 ft.

STRUCTURE HEIGHT..... 77 ft.

OVERALL HEIGHT AMSL.....375 ft.

NOTICE CRITERIA

- FAR 77.9(a): NNR (DNE 200 ft AGL)
- FAR 77.9(b): NNR (DNE Notice Slope)
- FAR 77.9(c): NNR (Not a Traverse Way)
- FAR 77.9: NNR FAR 77.9 IFR Notice Criteria for SDM
- FAR 77.9: NNR FAR 77.9 IFR Notice Criteria for NRS
- FAR 77.9(d): NNR (Off Airport Construction)

NR = Notice Required

NNR = Notice Not Required

PNR = Possible Notice Required (depends upon actual IFR procedure)
Review Air Navigation Facilities at bottom of this report.

Notice to the FAA is not required at the analyzed location and height.

NR = Notice Required

NNR = Notice Not Required

PNR = Possible Notice Required

OBSTRUCTION STANDARDS

- FAR 77.17(a)(1): DNE 499 ft AGL
- FAR 77.17(a)(2): DNE - Airport Surface
- FAR 77.19(a): DNE - Horizontal Surface
- FAR 77.19(b): DNE - Conical Surface
- FAR 77.19(c): DNE - Primary Surface
- FAR 77.19(d): DNE - Approach Surface
- FAR 77.19(e): DNE - Transitional Surface

VFR TRAFFIC PATTERN AIRSPACE FOR: SDM: BROWN FIELD MUNI

Type: A RD: 12499.22 RE: 507.6

FAR 77.17(a)(1): DNE

FAR 77.17(a)(2): DNE - Height No Greater Than 200 feet AGL.

VFR Horizontal Surface: DNE

VFR Conical Surface: DNE
 VFR Approach Slope: DNE
 VFR Transitional Slope: DNE

The structure is within VFR - Traffic Pattern Airspace Climb/Descent Area. Structures exceeding the greater of 350' AAE, 77.17(a)(2), or VFR horizontal and conical surfaces will receive a hazard determination from the FAA. Maximum AMSL of Climb/Descent Area is 876 feet.

VFR TRAFFIC PATTERN AIRSPACE FOR: NRS: IMPERIAL BEACH NOLF (REAM FL

Type: A RD: 52243.95 RE: 21.4
 FAR 77.17(a)(1): DNE
 FAR 77.17(a)(2): DNE - Greater Than 5.99 NM.
 VFR Horizontal Surface: DNE
 VFR Conical Surface: DNE
 VFR Approach Slope: DNE
 VFR Transitional Slope: DNE

TERPS DEPARTURE PROCEDURE (FAA Order 8260.3, Volume 4)

FAR 77.17(a)(3) Departure Surface Criteria (40:1)
 DNE Departure Surface

MINIMUM OBSTACLE CLEARANCE ALTITUDE (MOCA)

FAR 77.17(a)(4) MOCA Altitude Enroute Criteria
 The Maximum Height Permitted is 6000 ft AMSL

PRIVATE LANDING FACILITIES

FACIL	BEARING	RANGE	DELTA ARP	FAA
IDENT TYP NAME	To FACIL	IN NM	ELEVATION	IFR
OCL3 AIR JOHN NICHOL'S FIELD No Impact to Near Airport Surface. Below surface height of 223 ft above ARP.	49.75	3.23	-115	
CL09 HEL SHARP CHULA VISTA MEDICAL CE No Impact to Private Landing Facility Structure 5 ft below heliport.	287.14	4.32	-71	

AIR NAVIGATION ELECTRONIC FACILITIES

FAC	ST	DIST	DELTA	GRND	APCH
IDNT TYPE	AT	FREQ VECTOR	(ft) ELEVA ST	LOCATION	ANGLE BEAR
PGY VORTAC	R	109.8 290.95	12324 -205	CA POGGI	-.95
SDM ATCT	ON	228.16	15565 -227	CA BROWN FIELD MUNI	-.84
TIJ VOR/DME	I	116.5 189.89	21452 -124	MX TIJUANA	-.33
UN NDB	I	38 230.08	36808 +375	MX TIJUANA	.58
No Impact. Does Not Exceed NDB EMI Notice Height Criteria.					
NRS ATCT	Y	A/G 257.51	52729 +296	CA IMPERIAL BEACH NO	.32
NRS TACAN	I	NA 256.49	53228 +353	CA IMPERIAL BEACH	.38
SEE CO	Y	A/G 349.97	82313 -472	CA SEE RTR	-.33
SEE ATCT	Y	A/G 353.13	83195 -96	CA GILLESPIE FIELD	-.07

SAN	CO	Y	124.45	302.99	88409	+324	CA SAN DIEGO RCO	.21
NZY	ATCT	ON		294.45	90206	+263	CA NORTH ISLAND NAS	.17
SAN	CO	Y	A/G	294.42	90430	+288	CA SAN DIEGO RTR	.18
SAN	ATCT	Y	A/G	303.64	90958	+216	CA SAN DIEGO INTL-LI	.14
NZY	TACAN	I	NA	294.27	92644	+350	CA NORTH ISLAND	.22
NZY	RADAR	Y	2700.	294.49	92881	+310	CA NORTH ISLAND NAS	.19

No Impact. Alteration does not require Notice based upon EMI.

The studied location is within 20 NM of a Radar facility.

The calculated Radar Line-Of-Sight (LOS) distance is: 34 NM.

This location and height is within the Radar Line-Of-Sight.

MYF	CO	Y	A/G	323.63	98573	-116	CA MONTGOMERY RTR	-.07	
MYF	ATCT	ON		323.25	99536	-116	CA MONTGOMERY FIELD	-.07	
PTL	CO	Y		118.65	293.48	103284	-80	CA POINT LOMA RCO	-.04
MZB	VORTAC	R		117.8	307.56	109998	+363	CA MISSION BAY	.19
NKX	CO	Y	A/G	328.66	113014	-141	CA MIRAMAR RTR	-.07	
NKX	CO	Y	A/G	327.29	114211	-130	CA MIRAMAR RTR	-.07	
NKX	ATCT	Y	A/G	328.73	117664	-187	CA MIRAMAR MCAS/MITS	-.09	
NKX	TACAN	I	NA	326.49	118541	-55	CA MIRAMAR	-.03	
NKX	RADAR WXL	Y		345.23	120670	-677	CA SAN DIEGO	-.32	
NKX	RADAR	Y		329.11	120904	-154	CA MIRAMAR MCAS	-.07	

No Impact. Alteration does not require Notice based upon EMI.

The studied location is within 20 NM of a Radar facility.

The calculated Radar Line-Of-Sight (LOS) distance is: 52 NM.

This location and height is within the Radar Line-Of-Sight.

NKX	CO	Y	A/G	329.11	120913	-118	CA MIRAMAR RTR	-.06	
SAN	CO	Y	A/G	312.63	129866	-475	CA LA JOLLA RTR	-.21	
RNM	ATCT	Y	A/G	2.73	161138	-1062	CA RAMONA	-.38	
QRW	RADAR ARSR	Y		1275.1	57.9	190889	-5868	CA Mt. Laguna ARSR-4	-1.76
ZLA	CO	Y	A/G	57.82	190962	-5813	CA LAGUNA	-1.74	
QRW	CO	Y		8412.	57.79	190969	-5860	CA MOUNT LAGUNA ARSR	-1.76
CRQ	ATCT	ON		332.05	217787	-22	CA MC CLELLAN-PALOMA	-.01	
JLI	CO	Y	A/G	29.93	218873	-5155	CA JULIAN RCO	-1.35	

CFR Title 47, §1.30000-§1.30004

AM STUDY NOT REQUIRED: Structure is not near a FCC licensed AM station. Movement Method Proof as specified in §73.151(c) is not required. Please review 'AM Station Report' for details.

Nearest AM Station: XEUT @ 7556 meters.

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11-17-2014
09:57:06



Mail Processing Center
 Federal Aviation Administration
 Southwest Regional Office
 Obstruction Evaluation Group
 2601 Meacham Boulevard
 Fort Worth, TX 76193

Aeronautical Study No.
 2014-AWP-9463-OE

Issued Date: 02/27/2015

Joe Zulauf
 San Diego Gas & Electric
 8315 Century Park Ct., CP21C
 San Diego, CA 92123

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Transmission Line Z31735 - TL649
 Location: San Diego, CA
 Latitude: 32-35-21.44N NAD 83
 Longitude: 116-56-21.68W
 Heights: 557 feet site elevation (SE)
 61 feet above ground level (AGL)
 618 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
- Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

This determination expires on 08/27/2016 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-AWP-9463-OE.

Signature Control No: 236531602-244358062

(DNE)

Karen McDonald
Specialist

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2014-AWP-9463-OE

Replacing and increasing the height of an existing 57 ft. AGL wood 69kV transmission pole with a 61 ft. AGL steel 69kV transmission pole.



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 Obstruction Evaluation Group
 2601 Meacham Boulevard
 Fort Worth, TX 76193

Aeronautical Study No.
 2014-AWP-9464-OE

Issued Date: 02/27/2015

Joe Zulauf
 San Diego Gas & Electric
 8315 Century Park Ct., CP21C
 San Diego, CA 92123

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Transmission Line Z31736 - TL649
 Location: San Diego, CA
 Latitude: 32-35-19.37N NAD 83
 Longitude: 116-56-21.68W
 Heights: 561 feet site elevation (SE)
 66 feet above ground level (AGL)
 627 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
- Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

This determination expires on 08/27/2016 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-AWP-9464-OE.

Signature Control No: 236531603-244358075

(DNE)

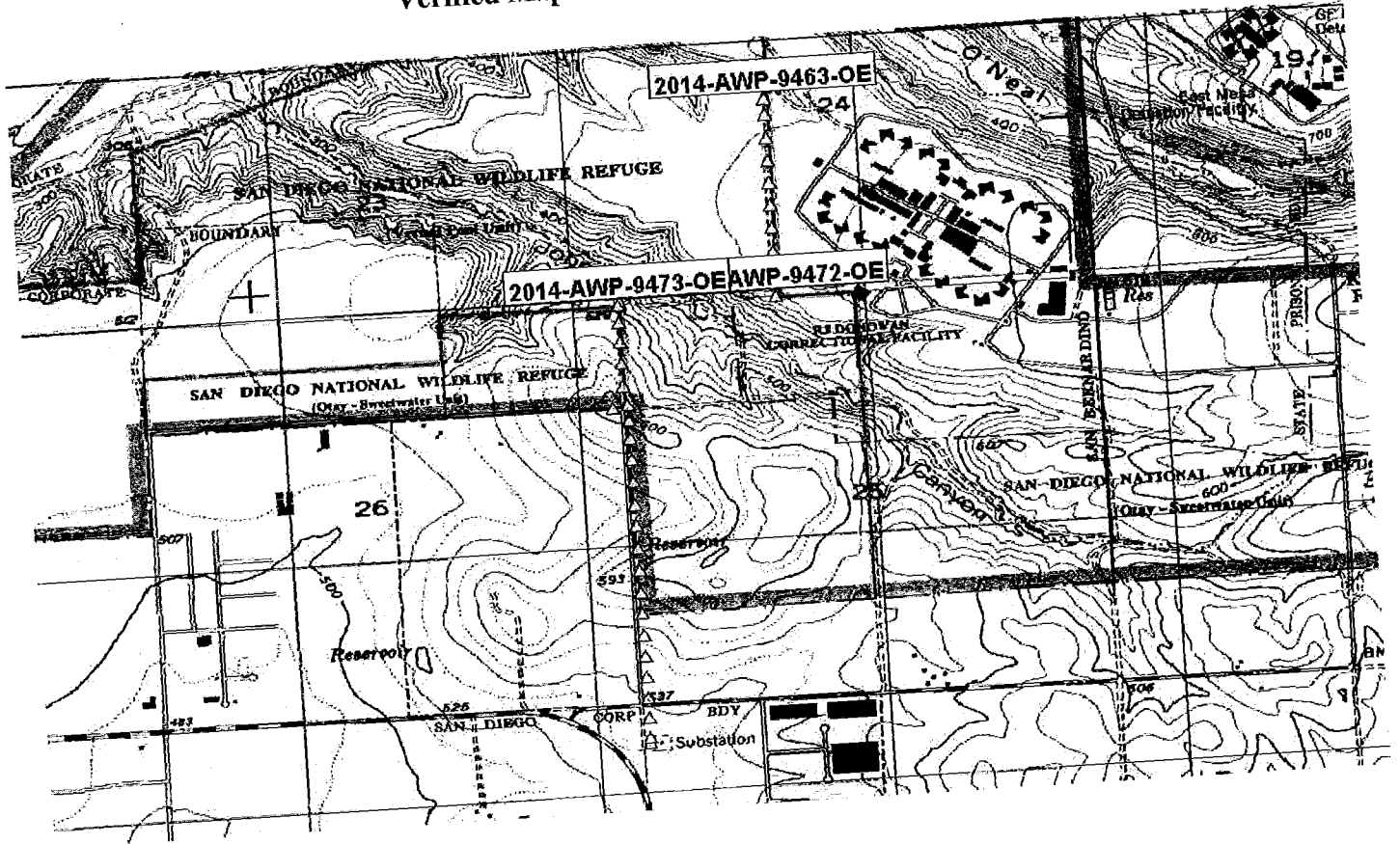
Karen McDonald
Specialist

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2014-AWP-9464-OE

Replacing and increasing the height of an existing 57 ft. AGL wood 69kV transmission pole with a 66 ft. AGL steel 69kV transmission pole.

Verified Map for ASN 2014-AWP-9464-OE





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Aeronautical Study No.
 2014-AWP-9465-OE

Issued Date: 02/27/2015

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 San Diego Gas & Electric
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**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Transmission Line Z31737 - TL649
 Location: San Diego, CA
 Latitude: 32-35-16.28N NAD 83
 Longitude: 116-56-21.67W
 Heights: 565 feet site elevation (SE)
 66 feet above ground level (AGL)
 631 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
- Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

This determination expires on 08/27/2016 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-AWP-9465-OE.

Signature Control No: 236531604-244358067

(DNE)

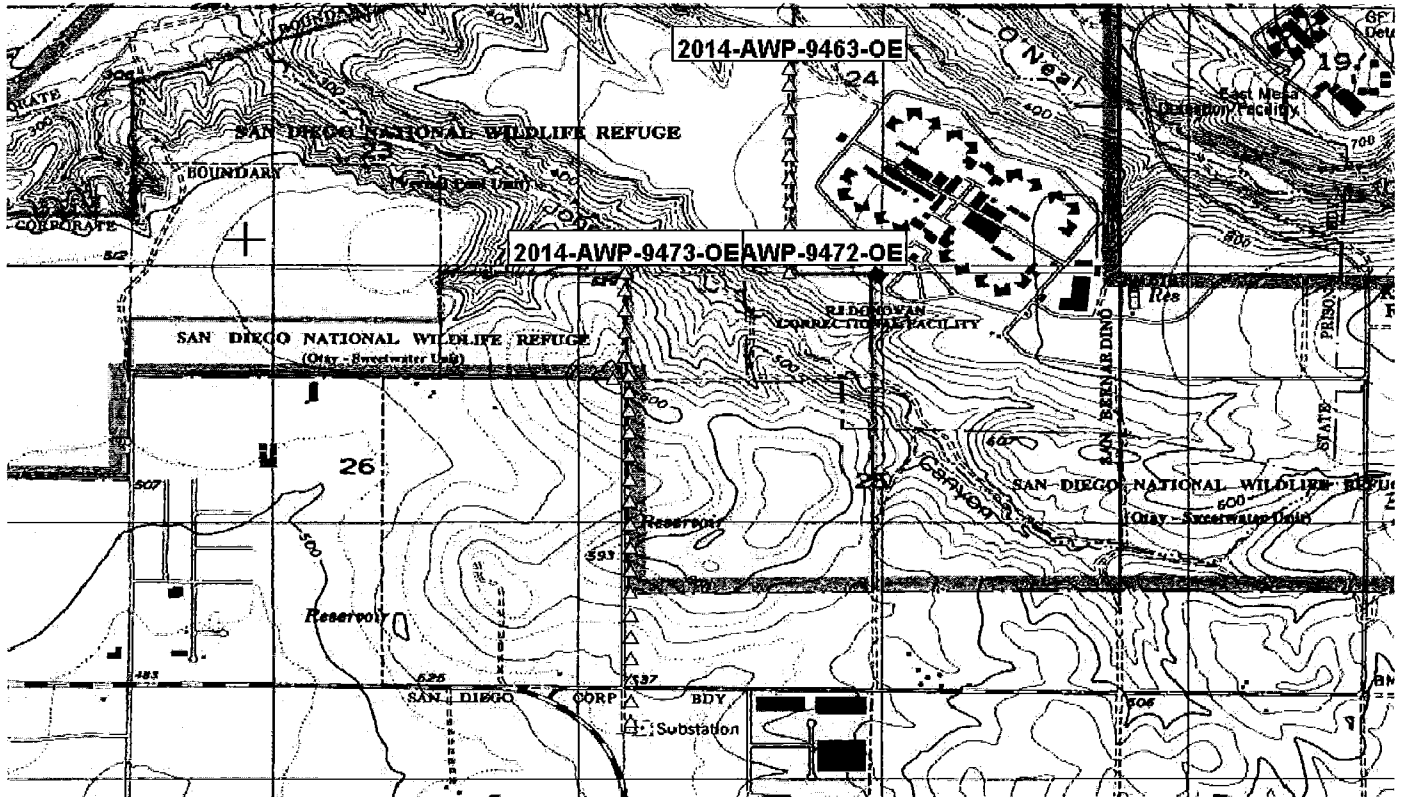
Karen McDonald
Specialist

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2014-AWP-9465-OE

Replacing and increasing the height of an existing 57 ft. AGL wood 69kV transmission pole with a 66 ft. AGL steel 69kV transmission pole.

Verified Map for ASN 2014-AWP-9465-OE





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Aeronautical Study No.
 2014-AWP-9466-OE

Issued Date: 02/27/2015

Joe Zulauf
 San Diego Gas & Electric
 8315 Century Park Ct., CP21C
 San Diego, CA 92123

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Transmission Line Z31738 - TL649
 Location: San Diego, CA
 Latitude: 32-35-13.30N NAD 83
 Longitude: 116-56-21.66W
 Heights: 569 feet site elevation (SE)
 66 feet above ground level (AGL)
 635 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
- Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

This determination expires on 08/27/2016 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-AWP-9466-OE.

Signature Control No: 236531605-244358060

(DNE)

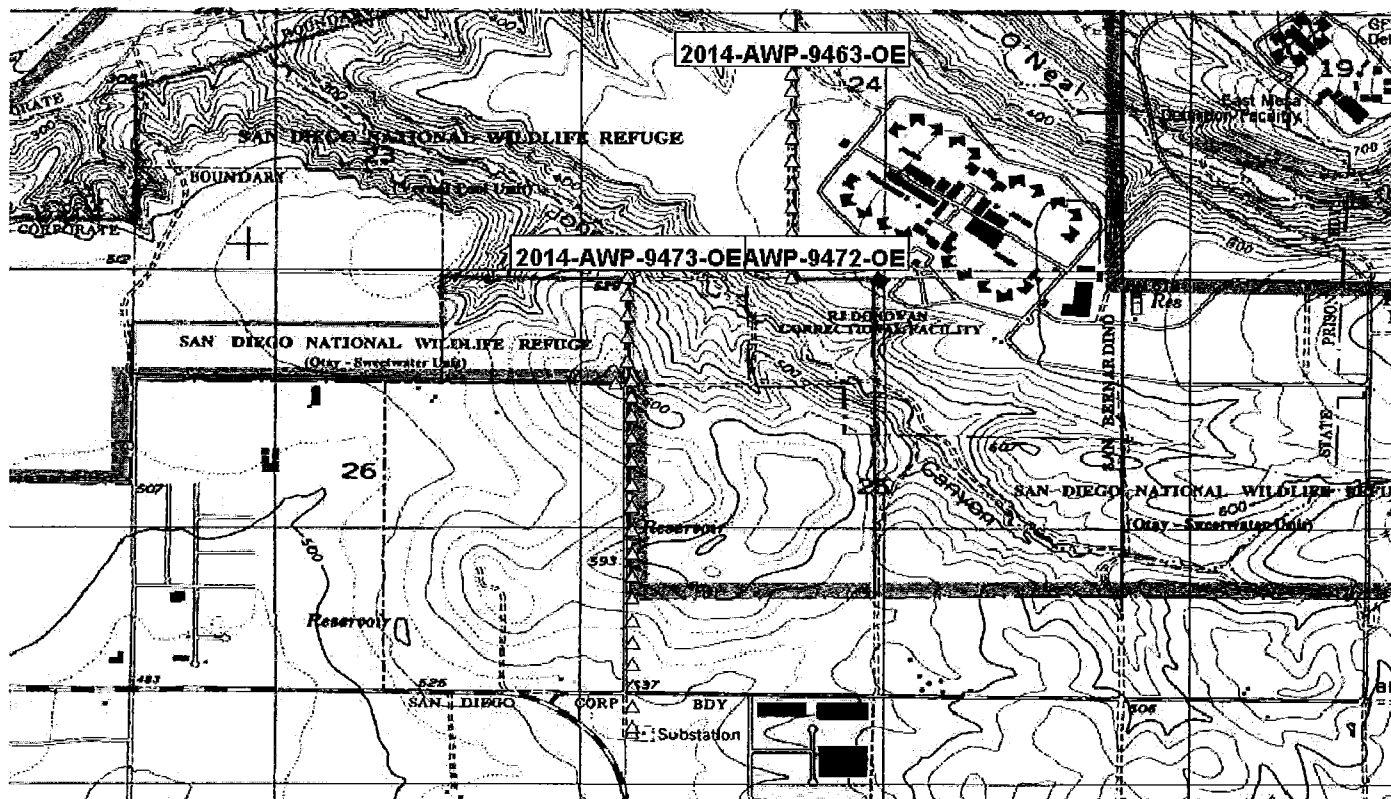
Karen McDonald
Specialist

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2014-AWP-9466-OE

Replacing and increasing the height of an existing 57 ft. AGL wood 69kV transmission pole with a 66 ft. AGL steel 69kV transmission pole.

Verified Map for ASN 2014-AWP-9466-OE





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Obstruction Evaluation Group
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Aeronautical Study No.
2014-AWP-9467-OE

Issued Date: 02/27/2015

Joe Zulauf
San Diego Gas & Electric
8315 Century Park Ct., CP21C
San Diego, CA 92123

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Transmission Line Z31739 - TL649
Location: San Diego, CA
Latitude: 32-35-10.46N NAD 83
Longitude: 116-56-21.66W
Heights: 570 feet site elevation (SE)
 66 feet above ground level (AGL)
 636 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
 Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

This determination expires on 08/27/2016 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-AWP-9467-OE.

Signature Control No: 236531606-244358061

(DNE)

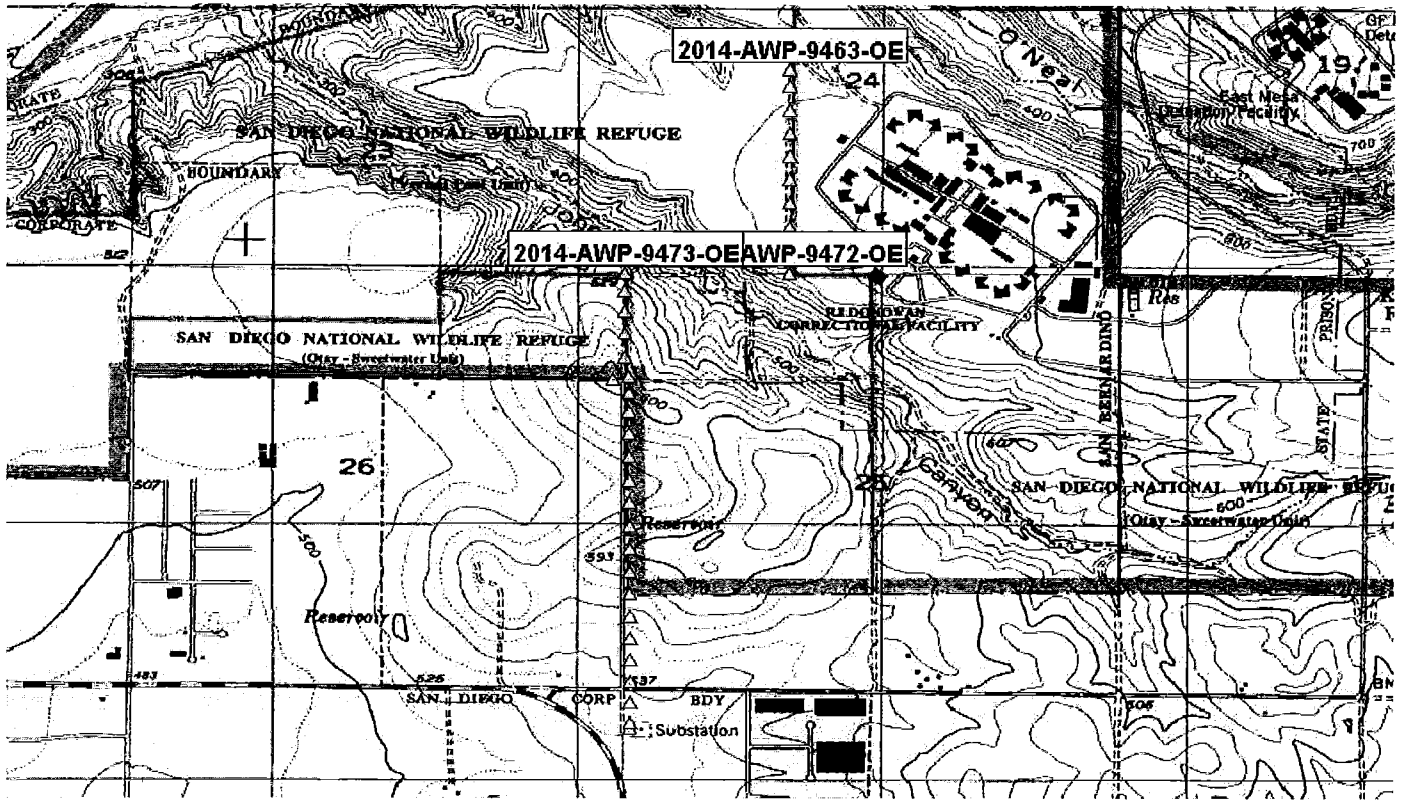
Karen McDonald
Specialist

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2014-AWP-9467-OE

Replacing and increasing the height of an existing 57 ft. AGL wood 69kV transmission pole with a 66 ft. AGL steel 69kV transmission pole.

Verified Map for ASN 2014-AWP-9467-OE





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Aeronautical Study No.
 2014-AWP-9468-OE

Issued Date: 02/27/2015

Joe Zulauf
 San Diego Gas & Electric
 8315 Century Park Ct., CP21C
 San Diego, CA 92123

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Transmission Line Z729583 - TL649
 Location: San Diego, CA
 Latitude: 32-35-07.50N NAD 83
 Longitude: 116-56-21.66W
 Heights: 572 feet site elevation (SE)
 66 feet above ground level (AGL)
 638 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
- Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

This determination expires on 08/27/2016 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-AWP-9468-OE.

Signature Control No: 236531607-244358064

(DNE)

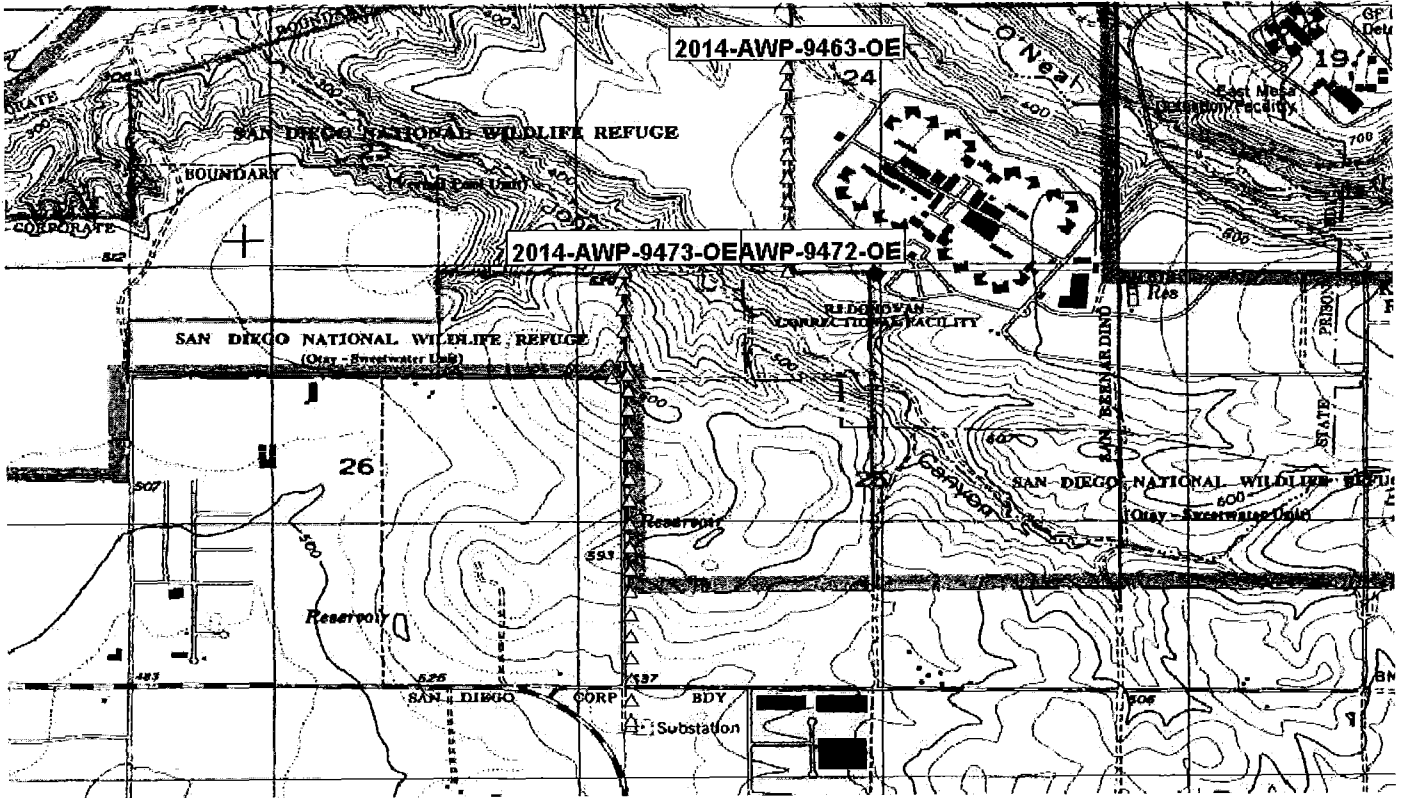
Karen McDonald
Specialist

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2014-AWP-9468-OE

Replacing and increasing the height of an existing 57 ft. AGL wood 69kV transmission pole with a 66 ft. AGL steel 69kV transmission pole.

Verified Map for ASN 2014-AWP-9468-OE





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Aeronautical Study No.
 2014-AWP-9469-OE

Issued Date: 02/27/2015

Joe Zulauf
 San Diego Gas & Electric
 8315 Century Park Ct., CP21C
 San Diego, CA 92123

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Transmission Line Z31741 - TL649
 Location: San Diego, CA
 Latitude: 32-35-04.52N NAD 83
 Longitude: 116-56-21.65W
 Heights: 574 feet site elevation (SE)
 66 feet above ground level (AGL)
 640 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
- Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

This determination expires on 08/27/2016 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-AWP-9469-OE.

Signature Control No: 236531608-244358063

(DNE)

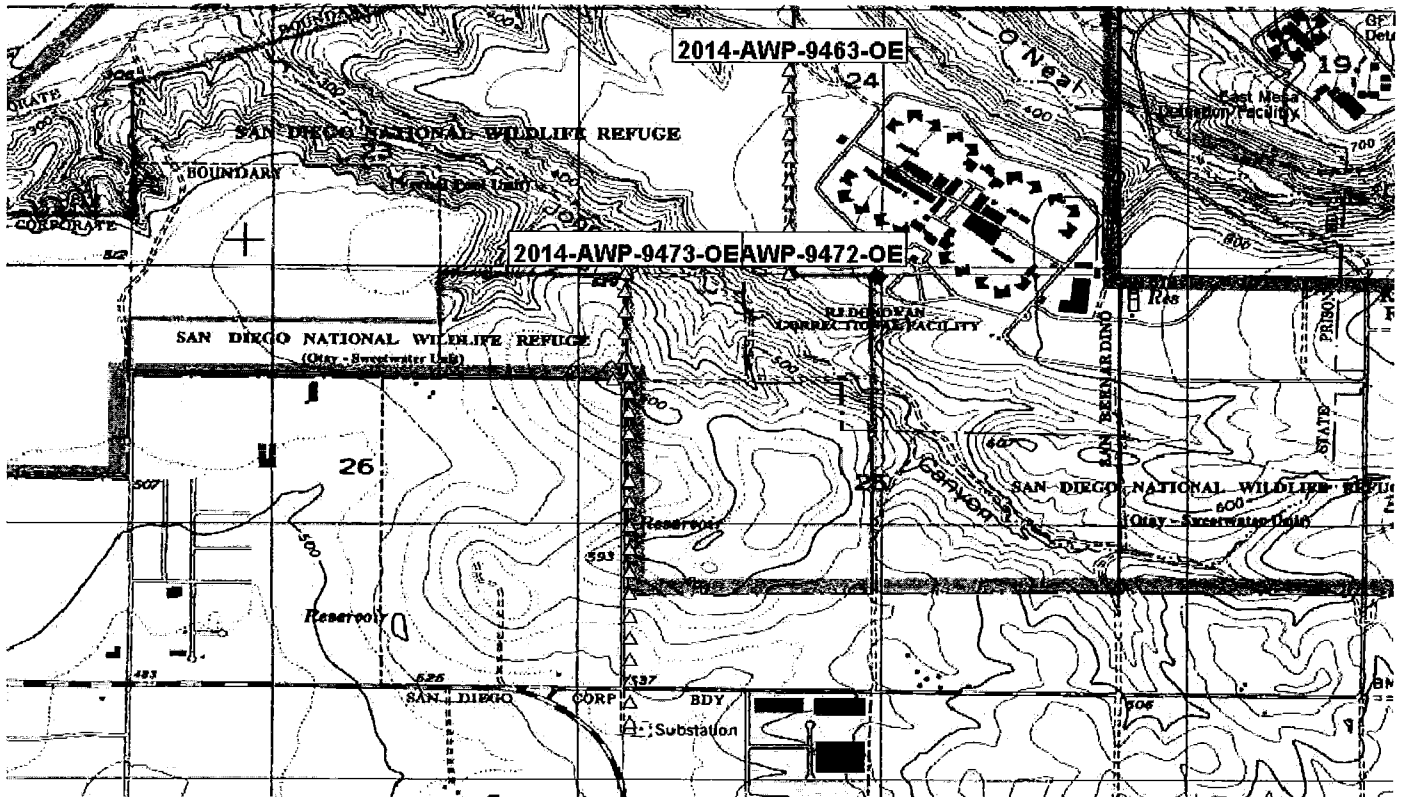
Karen McDonald
Specialist

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2014-AWP-9469-OE

Replacing and increasing the height of an existing 57 ft. AGL wood 69kV transmission pole with a 66 ft. AGL steel 69kV transmission pole.

Verified Map for ASN 2014-AWP-9469-OE





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Aeronautical Study No.
 2014-AWP-9470-OE

Issued Date: 02/27/2015

Joe Zulauf
 San Diego Gas & Electric
 8315 Century Park Ct., CP21C
 San Diego, CA 92123

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Transmission Line Z31742 - TL649
 Location: San Diego, CA
 Latitude: 32-35-01.44N NAD 83
 Longitude: 116-56-21.64W
 Heights: 574 feet site elevation (SE)
 66 feet above ground level (AGL)
 640 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
- Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

This determination expires on 08/27/2016 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-AWP-9470-OE.

Signature Control No: 236531609-244358074

(DNE)

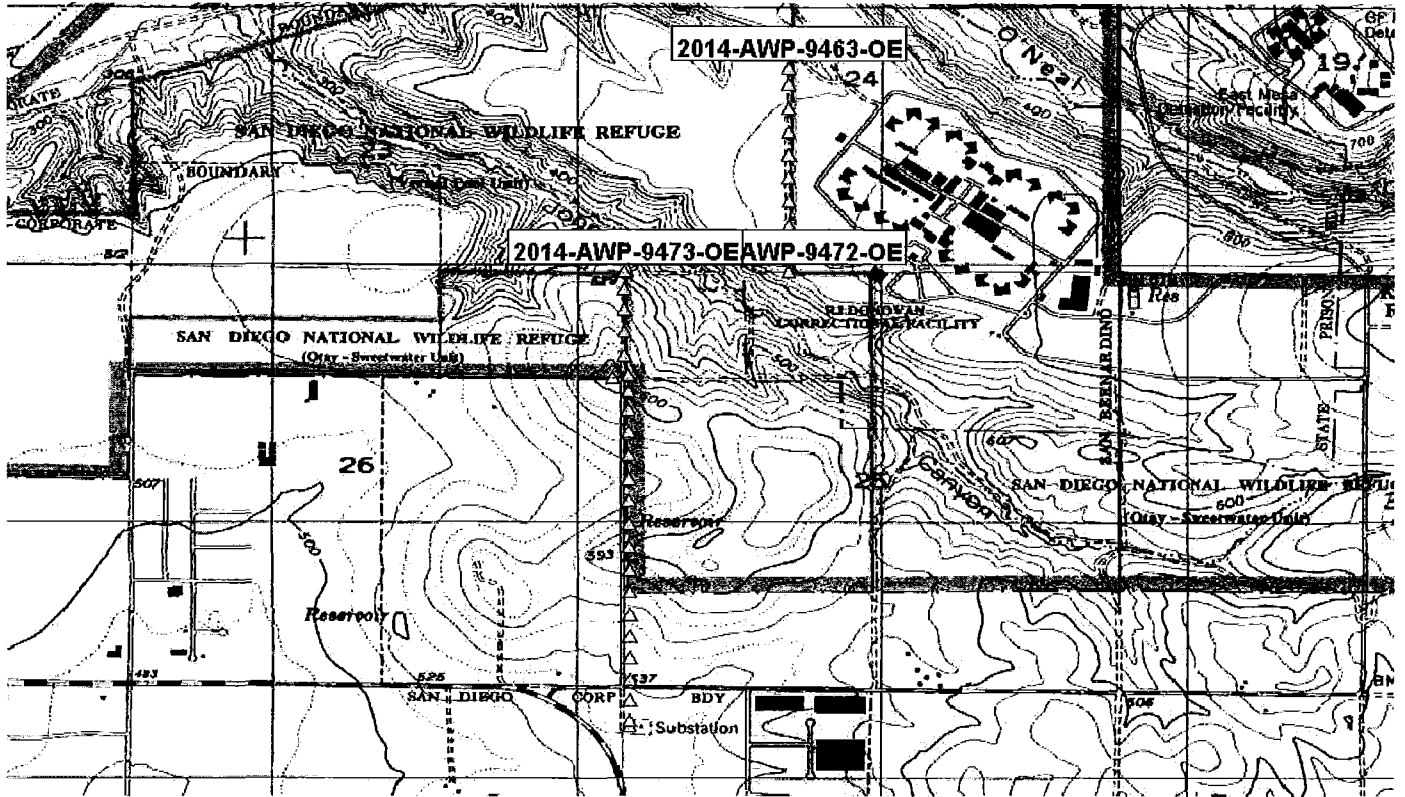
Karen McDonald
Specialist

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2014-AWP-9470-OE

Replacing and increasing the height of an existing 57 ft. AGL wood 69kV transmission pole with a 66 ft. AGL steel 69kV transmission pole.

Verified Map for ASN 2014-AWP-9470-OE





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 2601 Meacham Boulevard
 Fort Worth, TX 76193

Aeronautical Study No.
 2014-AWP-9471-OE

Issued Date: 02/27/2015

Joe Zulauf
 San Diego Gas & Electric
 8315 Century Park Ct., CP21C
 San Diego, CA 92123

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Transmission Line Z31743 - TL649
 Location: San Diego, CA
 Latitude: 32-34-58.59N NAD 83
 Longitude: 116-56-21.67W
 Heights: 571 feet site elevation (SE)
 66 feet above ground level (AGL)
 637 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
- Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

This determination expires on 08/27/2016 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-AWP-9471-OE.

Signature Control No: 236531610-244358073

(DNE)

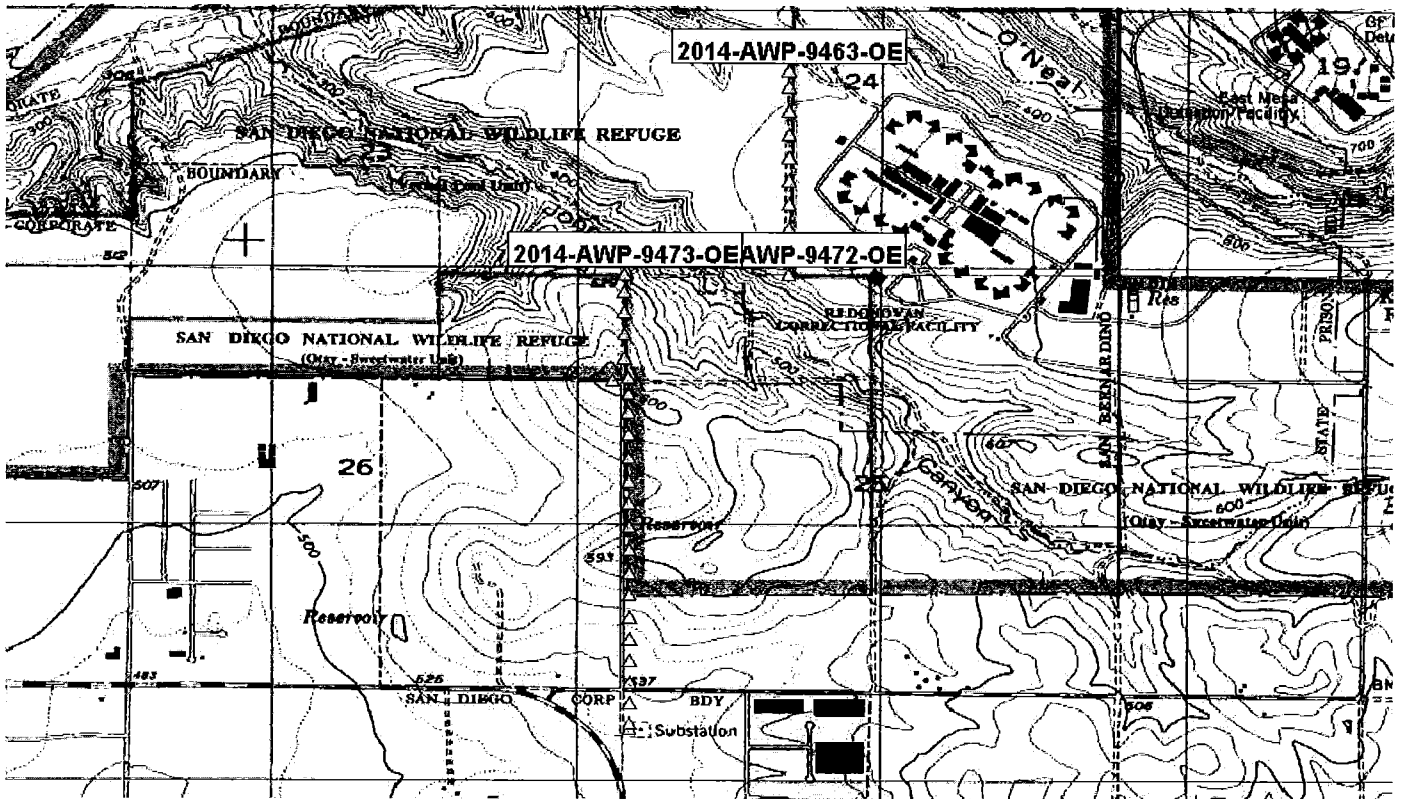
Karen McDonald
Specialist

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2014-AWP-9471-OE

Replacing and increasing the height of an existing 61 ft. AGL wood 69kV transmission pole with a 66 ft. AGL steel 69kV transmission pole.

Verified Map for ASN 2014-AWP-9471-OE





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 Obstruction Evaluation Group
 2601 Meacham Boulevard
 Fort Worth, TX 76193

Aeronautical Study No.
 2014-AWP-9472-OE

Issued Date: 02/27/2015

Joe Zulauf
 San Diego Gas & Electric
 8315 Century Park Ct., CP21C
 San Diego, CA 92123

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Transmission Line Z31744 - TL649
 Location: San Diego, CA
 Latitude: 32-34-55.61N NAD 83
 Longitude: 116-56-21.68W
 Heights: 555 feet site elevation (SE)
 85 feet above ground level (AGL)
 640 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
- Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

This determination expires on 08/27/2016 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-AWP-9472-OE.

Signature Control No: 236531611-244358071

(DNE)

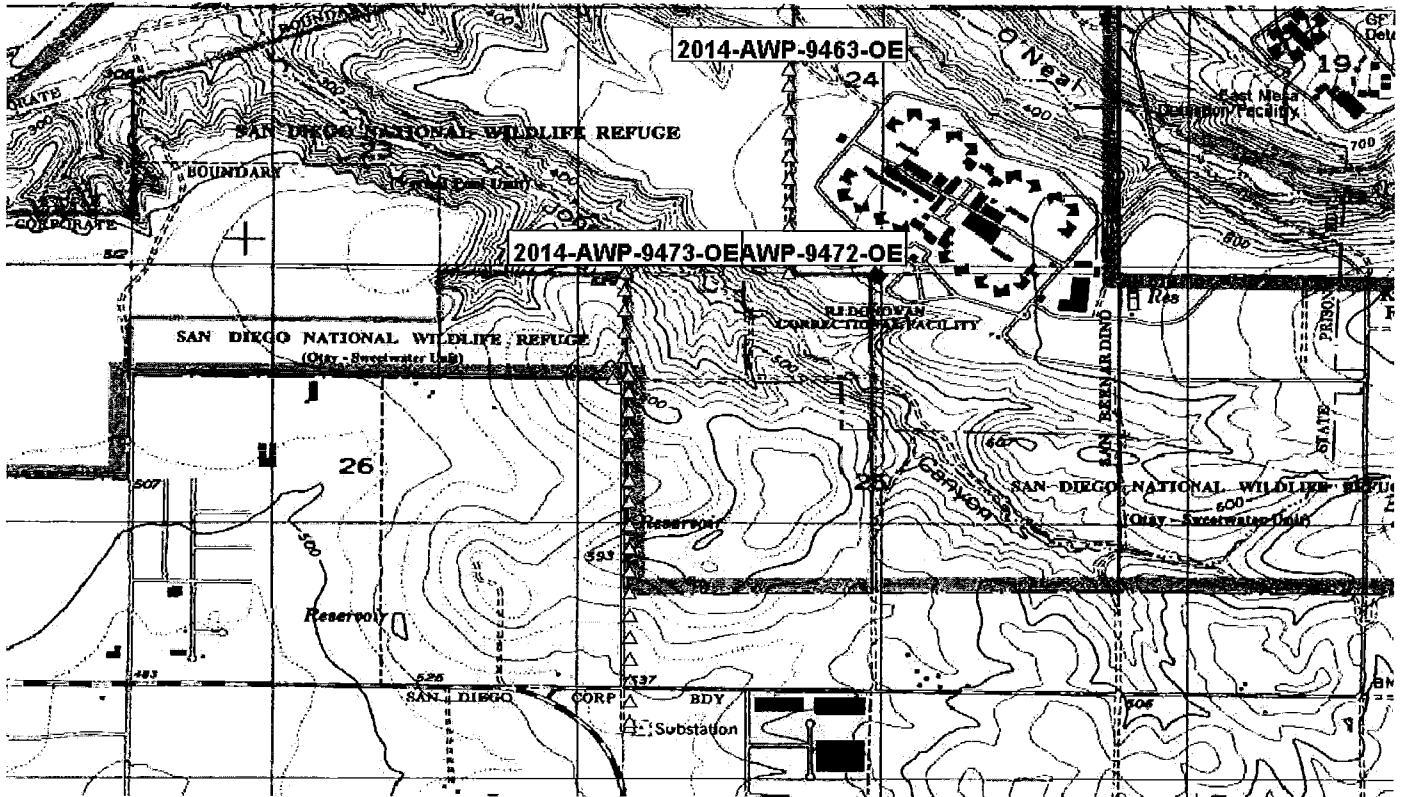
Karen McDonald
Specialist

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2014-AWP-9472-OE

Replacing and increasing the height of an existing 56 ft. AGL wood 69kV transmission pole with a 85 ft. AGL steel 69kV transmission pole.

Verified Map for ASN 2014-AWP-9472-OE





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Aeronautical Study No.
 2014-AWP-9473-OE

Issued Date: 02/27/2015

Joe Zulauf
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 8315 Century Park Ct., CP21C
 San Diego, CA 92123

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Transmission Line Z31745 - TL649
 Location: San Diego, CA
 Latitude: 32-34-55.61N NAD 83
 Longitude: 116-56-42.33W
 Heights: 531 feet site elevation (SE)
 90 feet above ground level (AGL)
 621 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
- Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

This determination expires on 08/27/2016 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-AWP-9473-OE.

Signature Control No: 236531612-244358079

(DNE)

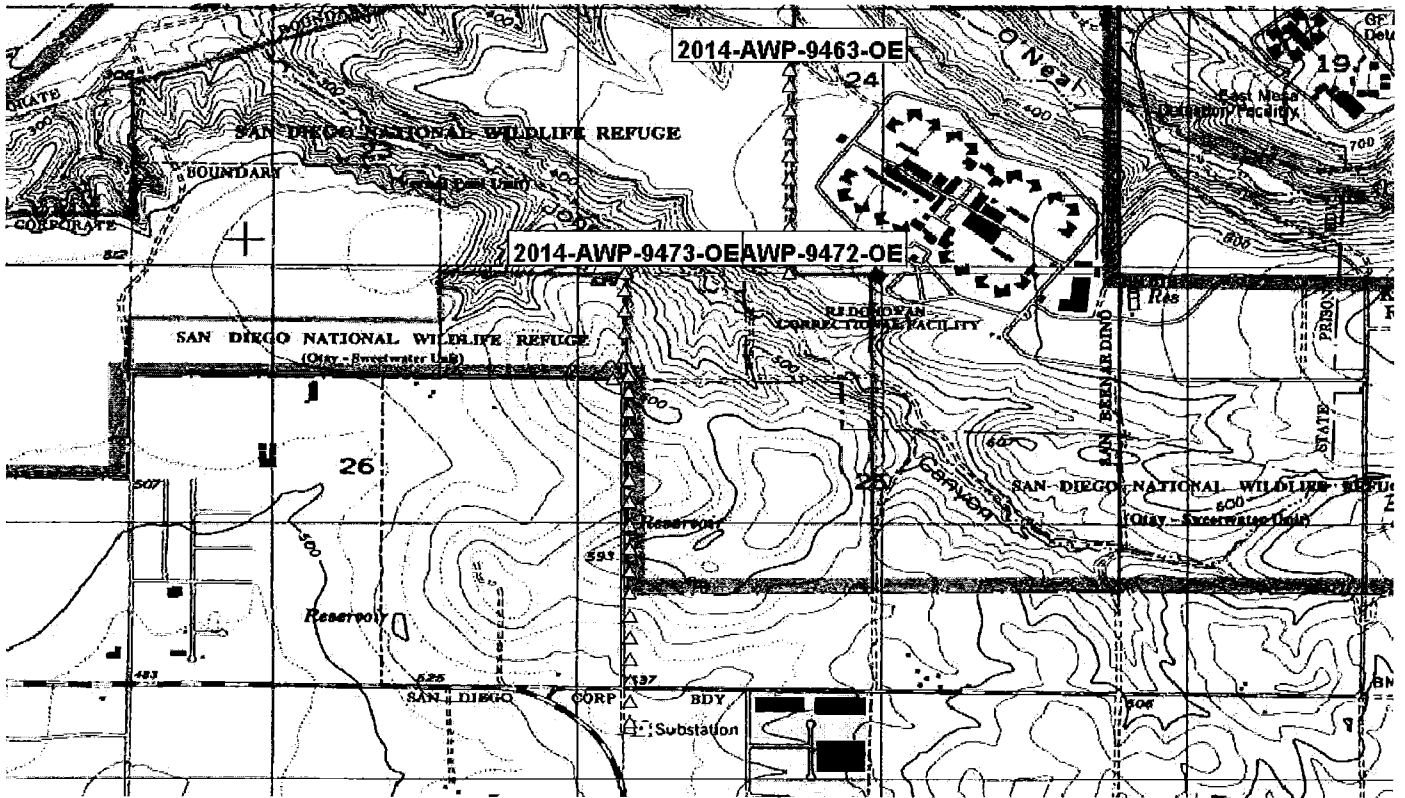
Karen McDonald
Specialist

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2014-AWP-9473-OE

Replacing and increasing the height of an existing 58 ft. AGL wood 69kV transmission pole with a steel 90 ft. AGL 69kV transmission pole.

Verified Map for ASN 2014-AWP-9473-OE





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Aeronautical Study No.
 2014-AWP-9474-OE

Issued Date: 02/27/2015

Joe Zulauf
 San Diego Gas & Electric
 8315 Century Park Ct., CP21C
 San Diego, CA 92123

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Transmission Line Z31746 - TL649
 Location: San Diego, CA
 Latitude: 32-34-53.42N NAD 83
 Longitude: 116-56-42.34W
 Heights: 545 feet site elevation (SE)
 75 feet above ground level (AGL)
 620 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
- Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

This determination expires on 08/27/2016 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-AWP-9474-OE.

Signature Control No: 236531613-244358068

(DNE)

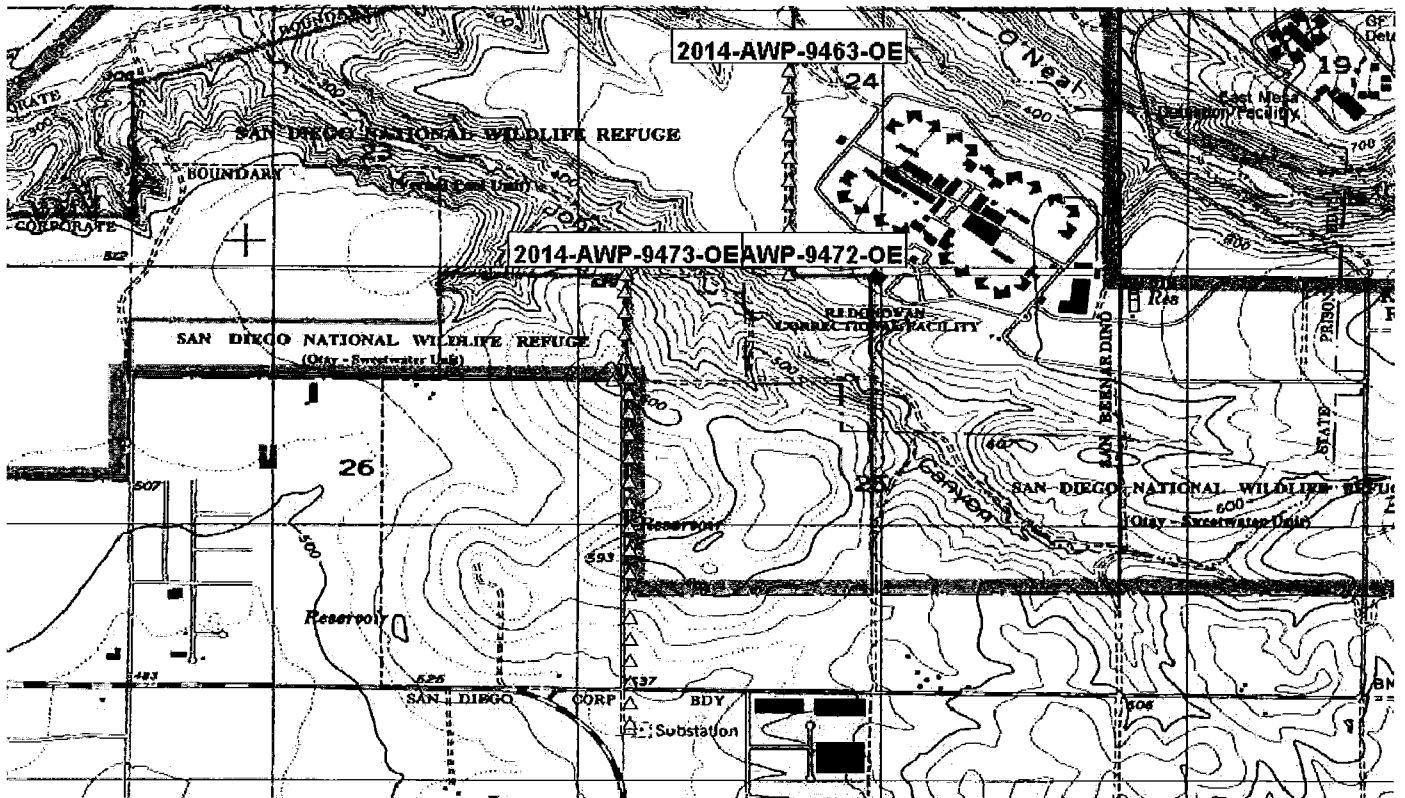
Karen McDonald
Specialist

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2014-AWP-9474-OE

Replacing and increasing the height of an existing 57 ft. AGL wood 69kV transmission pole with a steel 75 ft. AGL 69kV transmission pole.

Verified Map for ASN 2014-AWP-9474-OE





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Obstruction Evaluation Group
2601 Meacham Boulevard
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Aeronautical Study No.
2014-AWP-9475-OE

Issued Date: 02/27/2015

Joe Zulauf
San Diego Gas & Electric
8315 Century Park Ct., CP21C
San Diego, CA 92123

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Transmission Line Z31747 - TL649
Location: San Diego, CA
Latitude: 32-34-50.85N NAD 83
Longitude: 116-56-42.34W
Heights: 560 feet site elevation (SE)
70 feet above ground level (AGL)
630 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
 Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

This determination expires on 08/27/2016 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-AWP-9475-OE.

Signature Control No: 236531614-244358069

(DNE)

Karen McDonald

Specialist

Attachment(s)

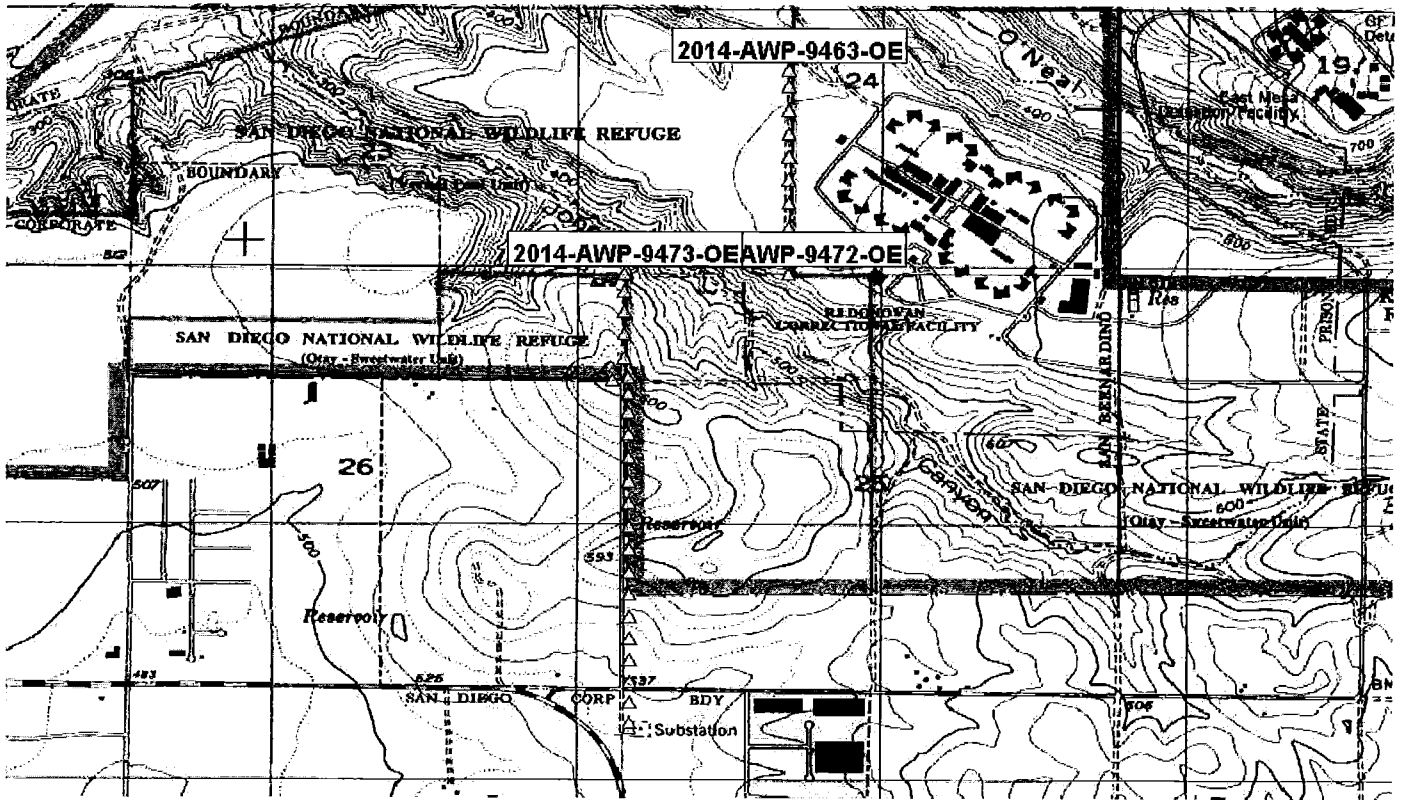
Case Description

Map(s)

Case Description for ASN 2014-AWP-9475-OE

Replacing and increasing the height of an existing 57 ft. AGL wood 69kV transmission pole with a steel 70 ft. AGL 69kV transmission pole.

Verified Map for ASN 2014-AWP-9475-OE





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Aeronautical Study No.
 2014-AWP-9476-OE

Issued Date: 02/27/2015

Joe Zulauf
 San Diego Gas & Electric
 8315 Century Park Ct., CP21C
 San Diego, CA 92123

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Transmission Line Z31748 - TL649
 Location: San Diego, CA
 Latitude: 32-34-48.02N NAD 83
 Longitude: 116-56-42.33W
 Heights: 576 feet site elevation (SE)
 79 feet above ground level (AGL)
 655 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
- Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

This determination expires on 08/27/2016 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-AWP-9476-OE.

Signature Control No: 236531615-244358077

(DNE)

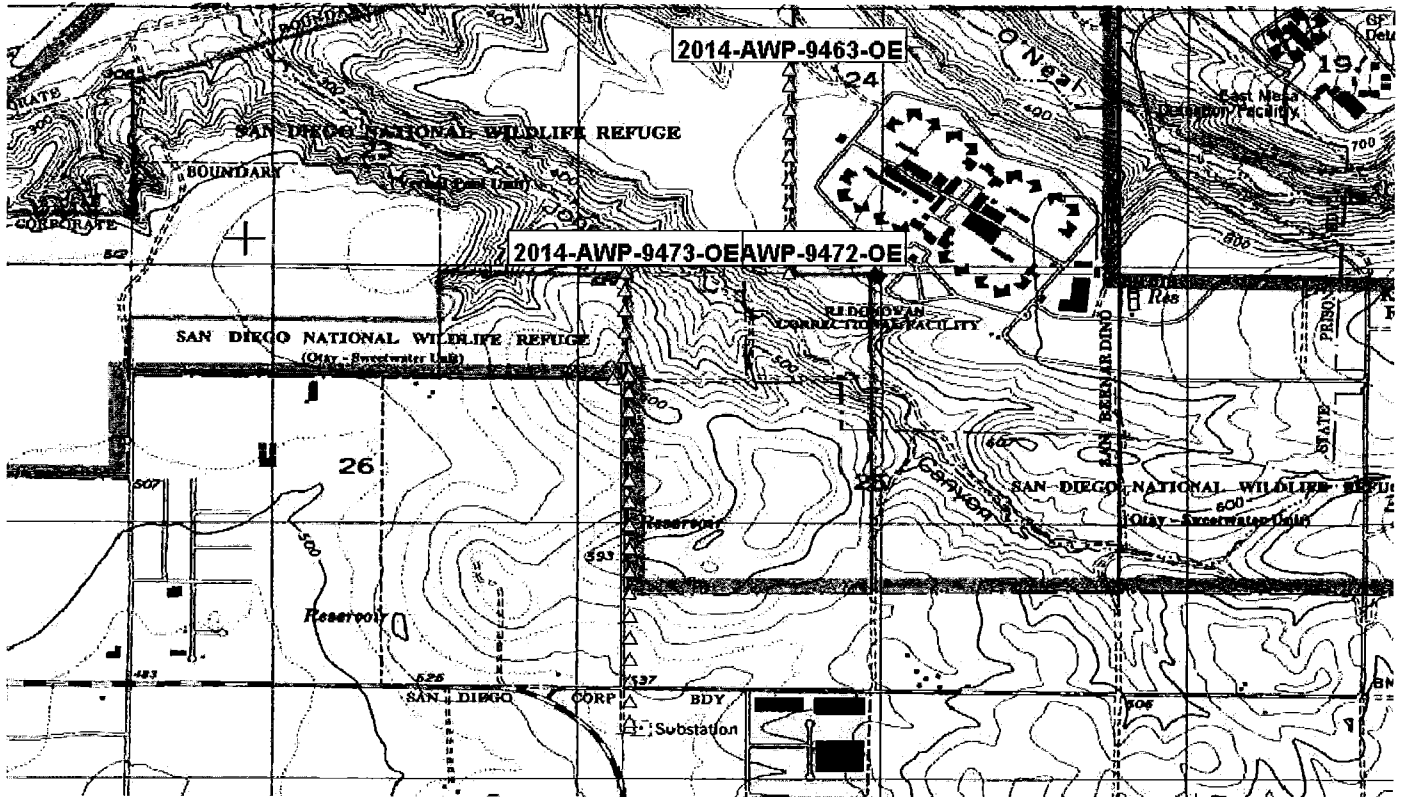
Karen McDonald
Specialist

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2014-AWP-9476-OE

Replacing and increasing the height of an existing 57 ft. AGL wood 69kV transmission pole with a steel 79 ft. AGL 69kV transmission pole.

Verified Map for ASN 2014-AWP-9476-OE





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Aeronautical Study No.
 2014-AWP-9477-OE

Issued Date: 02/27/2015

Joe Zulauf
 San Diego Gas & Electric
 8315 Century Park Ct., CP21C
 San Diego, CA 92123

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Transmission Line Z31749 - TL649
 Location: San Diego, CA
 Latitude: 32-34-45.03N NAD 83
 Longitude: 116-56-42.33W
 Heights: 593 feet site elevation (SE)
 70 feet above ground level (AGL)
 663 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
- Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

This determination expires on 08/27/2016 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-AWP-9477-OE.

Signature Control No: 236531616-244358066

(DNE)

Karen McDonald
Specialist

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2014-AWP-9477-OE

Replacing and increasing the height of an existing 55 ft. AGL wood 69kV transmission pole with a steel 70 ft. AGL 69kV transmission pole.



Mail Processing Center
 Federal Aviation Administration
 Southwest Regional Office
 Obstruction Evaluation Group
 2601 Meacham Boulevard
 Fort Worth, TX 76193

Aeronautical Study No.
 2014-AWP-9478-OE

Issued Date: 02/27/2015

Joe Zulauf
 San Diego Gas & Electric
 8315 Century Park Ct., CP21C
 San Diego, CA 92123

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Transmission Line Z31750 - TL649
 Location: San Diego, CA
 Latitude: 32-34-42.57N NAD 83
 Longitude: 116-56-41.86W
 Heights: 604 feet site elevation (SE)
 70 feet above ground level (AGL)
 674 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
- Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

This determination expires on 08/27/2016 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-AWP-9478-OE.

Signature Control No: 236531617-244358065

(DNE)

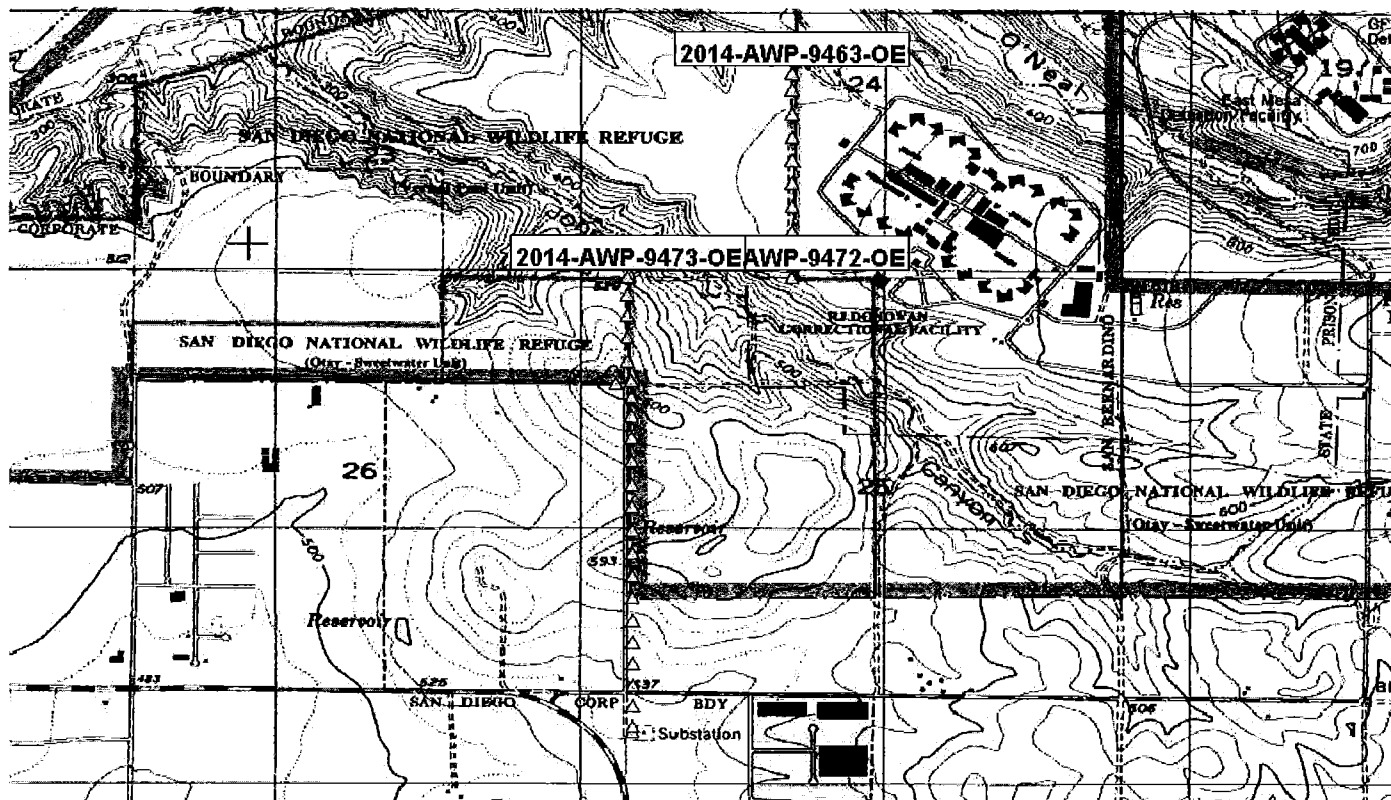
Karen McDonald
Specialist

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2014-AWP-9478-OE

Replacing and increasing the height of an existing 51 ft. AGL wood 69kV transmission pole with a steel 70 ft. AGL 69kV transmission pole.

Verified Map for ASN 2014-AWP-9478-OE





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 Federal Aviation Administration
 Southwest Regional Office
 Obstruction Evaluation Group
 2601 Meacham Boulevard
 Fort Worth, TX 76193

Aeronautical Study No.
 2014-AWP-9479-OE

Issued Date: 02/27/2015

Joe Zulauf
 San Diego Gas & Electric
 8315 Century Park Ct., CP21C
 San Diego, CA 92123

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Utility Pole P89151 - C534
 Location: San Diego, CA
 Latitude: 32-34-42.27N NAD 83
 Longitude: 116-56-43.84W
 Heights: 611 feet site elevation (SE)
 39 feet above ground level (AGL)
 650 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
- Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

This determination expires on 08/27/2016 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-AWP-9479-OE.

Signature Control No: 236531618-244358076

(DNE)

Karen McDonald
Specialist

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2014-AWP-9479-OE

Replacing and increasing the height of an existing 34 ft. AGL wood distribution pole with a steel 39 ft. AGL distribution pole.



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 Federal Aviation Administration
 Southwest Regional Office
 Obstruction Evaluation Group
 2601 Meacham Boulevard
 Fort Worth, TX 76193

Aeronautical Study No.
 2014-AWP-9480-OE

Issued Date: 02/27/2015

Joe Zulauf
 San Diego Gas & Electric
 8315 Century Park Ct., CP21C
 San Diego, CA 92123

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Transmission Line Z31751 - TL649
 Location: San Diego, CA
 Latitude: 32-34-40.48N NAD 83
 Longitude: 116-56-41.82W
 Heights: 607 feet site elevation (SE)
 66 feet above ground level (AGL)
 673 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
- Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

This determination expires on 08/27/2016 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-AWP-9480-OE.

Signature Control No: 236531619-244358070

(DNE)

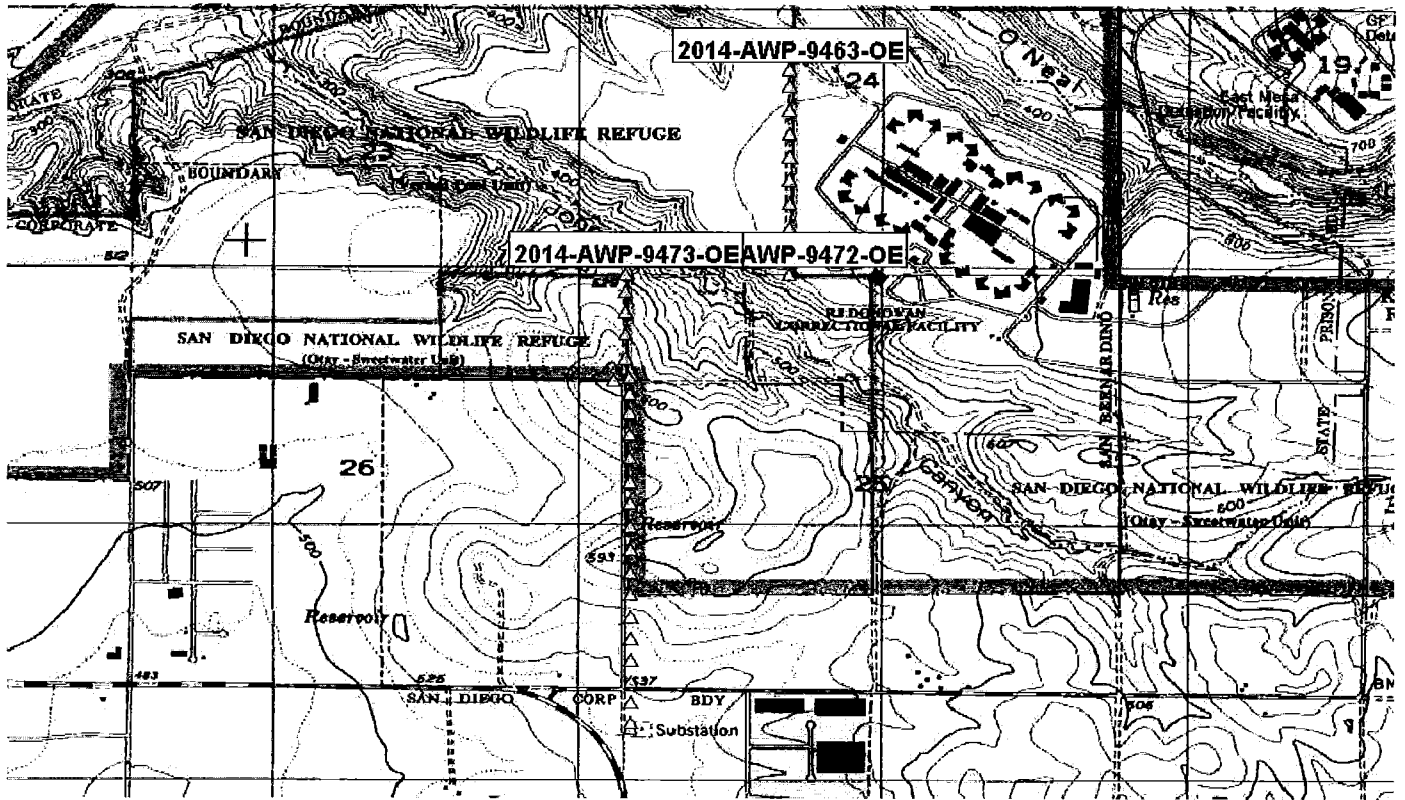
Karen McDonald
Specialist

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2014-AWP-9480-OE

Replacing and increasing the height of an existing 56 ft. AGL wood 69kV transmission pole with a steel 66 ft. AGL 69kV transmission pole.

Verified Map for ASN 2014-AWP-9480-OE





Mail Processing Center
 Federal Aviation Administration
 Southwest Regional Office
 Obstruction Evaluation Group
 2601 Meacham Boulevard
 Fort Worth, TX 76193

Aeronautical Study No.
 2014-AWP-9481-OE

Issued Date: 02/27/2015

Joe Zulauf
 San Diego Gas & Electric
 8315 Century Park Ct., CP21C
 San Diego, CA 92123

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Transmission Line Z31752 - TL649
 Location: San Diego, CA
 Latitude: 32-34-38.24N NAD 83
 Longitude: 116-56-41.81W
 Heights: 598 feet site elevation (SE)
 66 feet above ground level (AGL)
 664 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
- Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

This determination expires on 08/27/2016 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-AWP-9481-OE.

Signature Control No: 236531620-244358072

(DNE)

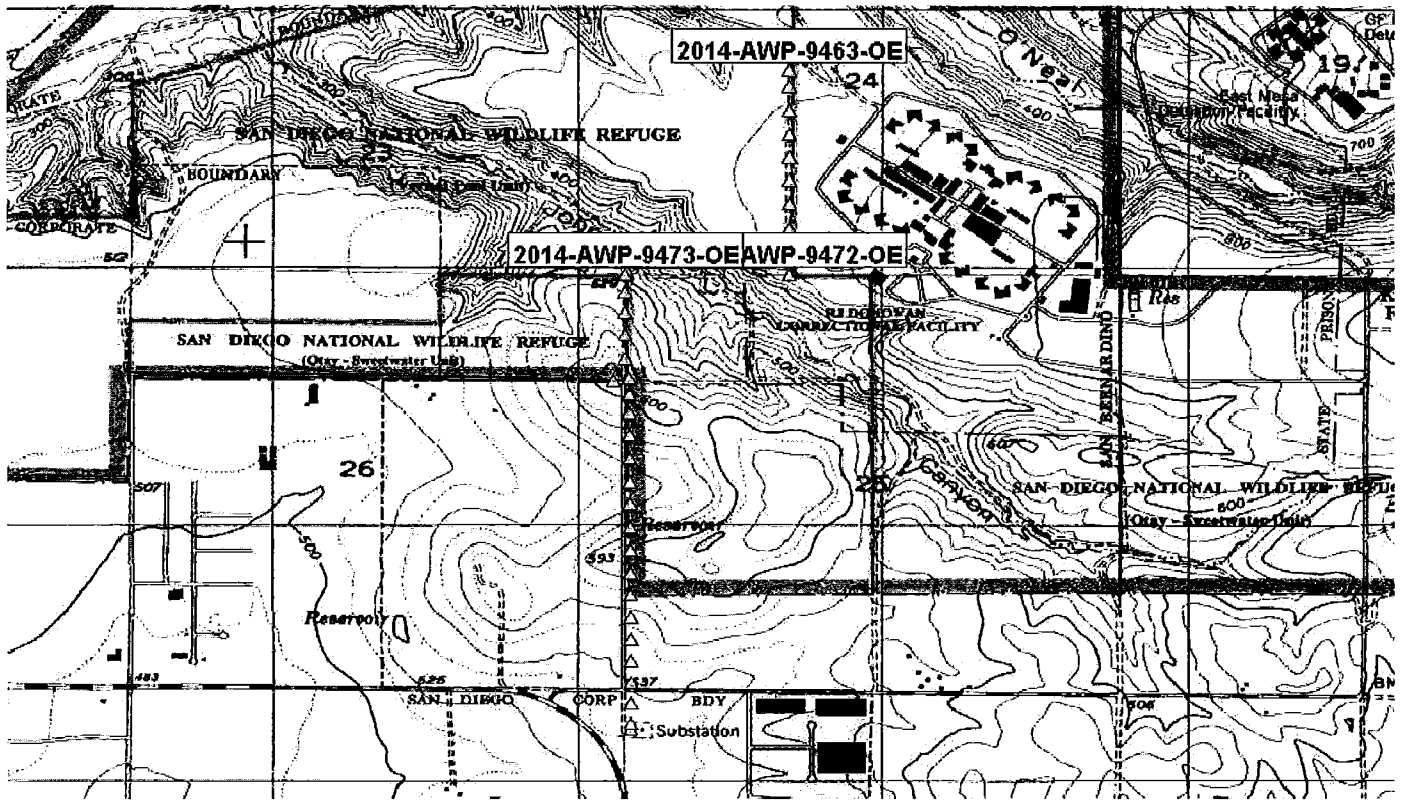
Karen McDonald
Specialist

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2014-AWP-9481-OE

Replacing and increasing the height of an existing 55 ft. AGL wood 69kV transmission pole with a steel 66 ft. AGL 69kV transmission pole.

Verified Map for ASN 2014-AWP-9481-OE





Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
2601 Meacham Boulevard
Fort Worth, TX 76193

Aeronautical Study No.
2014-AWP-9482-OE

Issued Date: 02/27/2015

Joe Zulauf
San Diego Gas & Electric
8315 Century Park Ct., CP21C
San Diego, CA 92123

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Transmission Line Z31753 - TL649
Location:	San Diego, CA
Latitude:	32-34-35.39N NAD 83
Longitude:	116-56-41.79W
Heights:	584 feet site elevation (SE) 70 feet above ground level (AGL) 654 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
 Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

This determination expires on 08/27/2016 unless:

- the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- extended, revised, or terminated by the issuing office.
- the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-AWP-9482-OE.

Signature Control No: 236531621-244358078

(DNE)

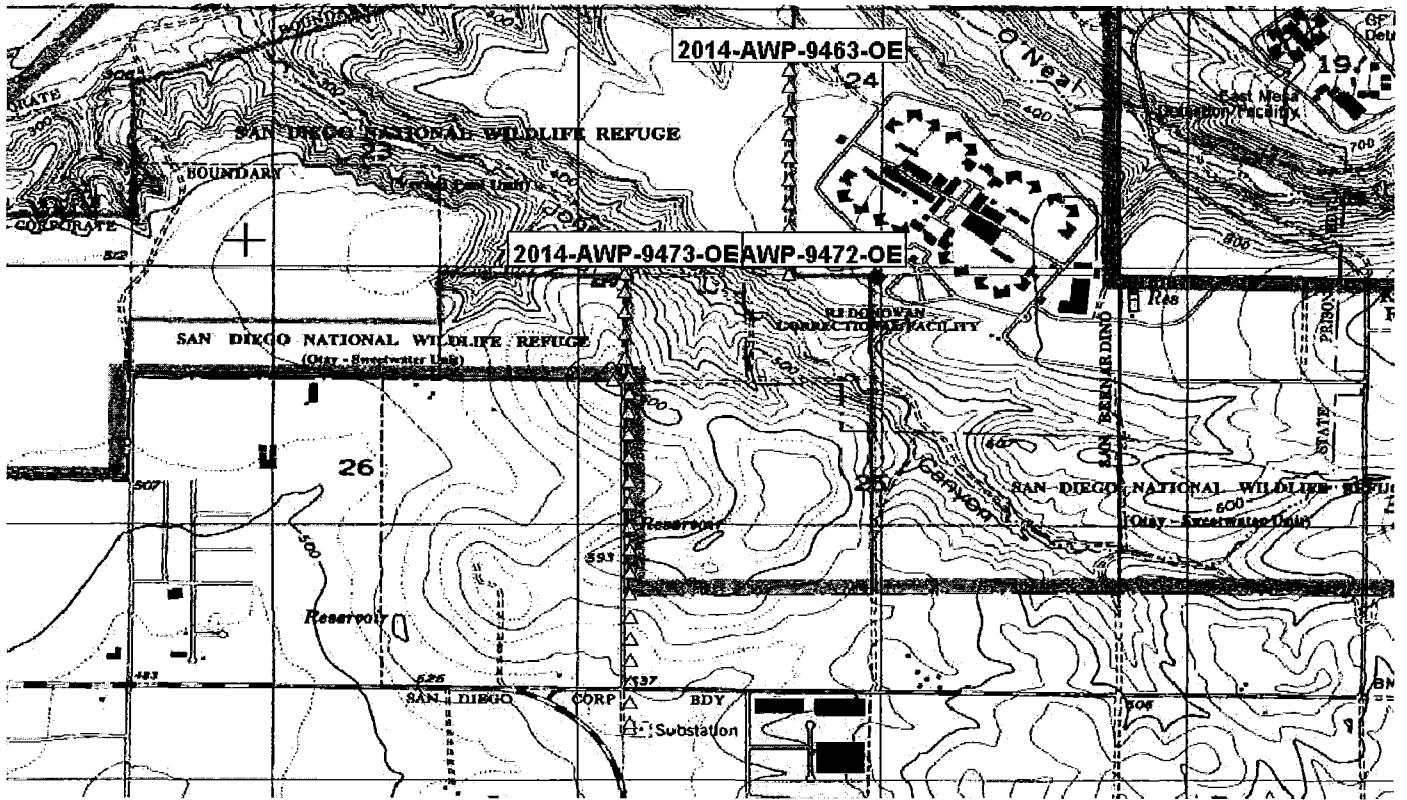
Karen McDonald
Specialist

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2014-AWP-9482-OE

Replacing and increasing the height of an existing 56 ft. AGL wood 69kV transmission pole with a steel 70 ft. AGL 69kV transmission pole.

Verified Map for ASN 2014-AWP-9482-OE





Mail Processing Center
 Federal Aviation Administration
 Southwest Regional Office
 Obstruction Evaluation Group
 2601 Meacham Boulevard
 Fort Worth, TX 76193

Aeronautical Study No.
 2014-AWP-9483-OE

Issued Date: 02/27/2015

Joe Zulauf
 San Diego Gas & Electric
 8315 Century Park Ct., CP21C
 San Diego, CA 92123

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Transmission Line Z31754 - TL649
 Location: San Diego, CA
 Latitude: 32-34-32.44N NAD 83
 Longitude: 116-56-41.77W
 Heights: 568 feet site elevation (SE)
 75 feet above ground level (AGL)
 643 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
- Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

This determination expires on 08/27/2016 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

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This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-AWP-9483-OE.

Signature Control No: 236531622-244358104

(DNE)

Karen McDonald
Specialist

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2014-AWP-9483-OE

Replacing and increasing the height of an existing 55 ft. AGL wood 69kV transmission pole with a steel 75 ft. AGL 69kV transmission pole.



Mail Processing Center
 Federal Aviation Administration
 Southwest Regional Office
 Obstruction Evaluation Group
 2601 Meacham Boulevard
 Fort Worth, TX 76193

Aeronautical Study No.
 2014-AWP-9484-OE

Issued Date: 02/27/2015

Joe Zulauf
 San Diego Gas & Electric
 8315 Century Park Ct., CP21C
 San Diego, CA 92123

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Transmission Line Z31755 - TL649
 Location: San Diego, CA
 Latitude: 32-34-29.46N NAD 83
 Longitude: 116-56-41.75W
 Heights: 557 feet site elevation (SE)
 70 feet above ground level (AGL)
 627 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
- Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

This determination expires on 08/27/2016 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-AWP-9484-OE.

Signature Control No: 236531623-244358105
Karen McDonald
Specialist

(DNE)

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2014-AWP-9484-OE

Replacing and increasing the height of an existing 56 ft. AGL wood 69kV transmission pole with a steel 70 ft. AGL 69kV transmission pole.



Mail Processing Center
 Federal Aviation Administration
 Southwest Regional Office
 Obstruction Evaluation Group
 2601 Meacham Boulevard
 Fort Worth, TX 76193

Aeronautical Study No.
 2014-AWP-9485-OE

Issued Date: 02/27/2015

Joe Zulauf
 San Diego Gas & Electric
 8315 Century Park Ct., CP21C
 San Diego, CA 92123

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Transmission Line Z31756 - TL649
 Location: San Diego, CA
 Latitude: 32-34-26.69N NAD 83
 Longitude: 116-56-41.74W
 Heights: 562 feet site elevation (SE)
 70 feet above ground level (AGL)
 632 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
- Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

This determination expires on 08/27/2016 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-AWP-9485-OE.

Signature Control No: 236531624-244358106
Karen McDonald
Specialist

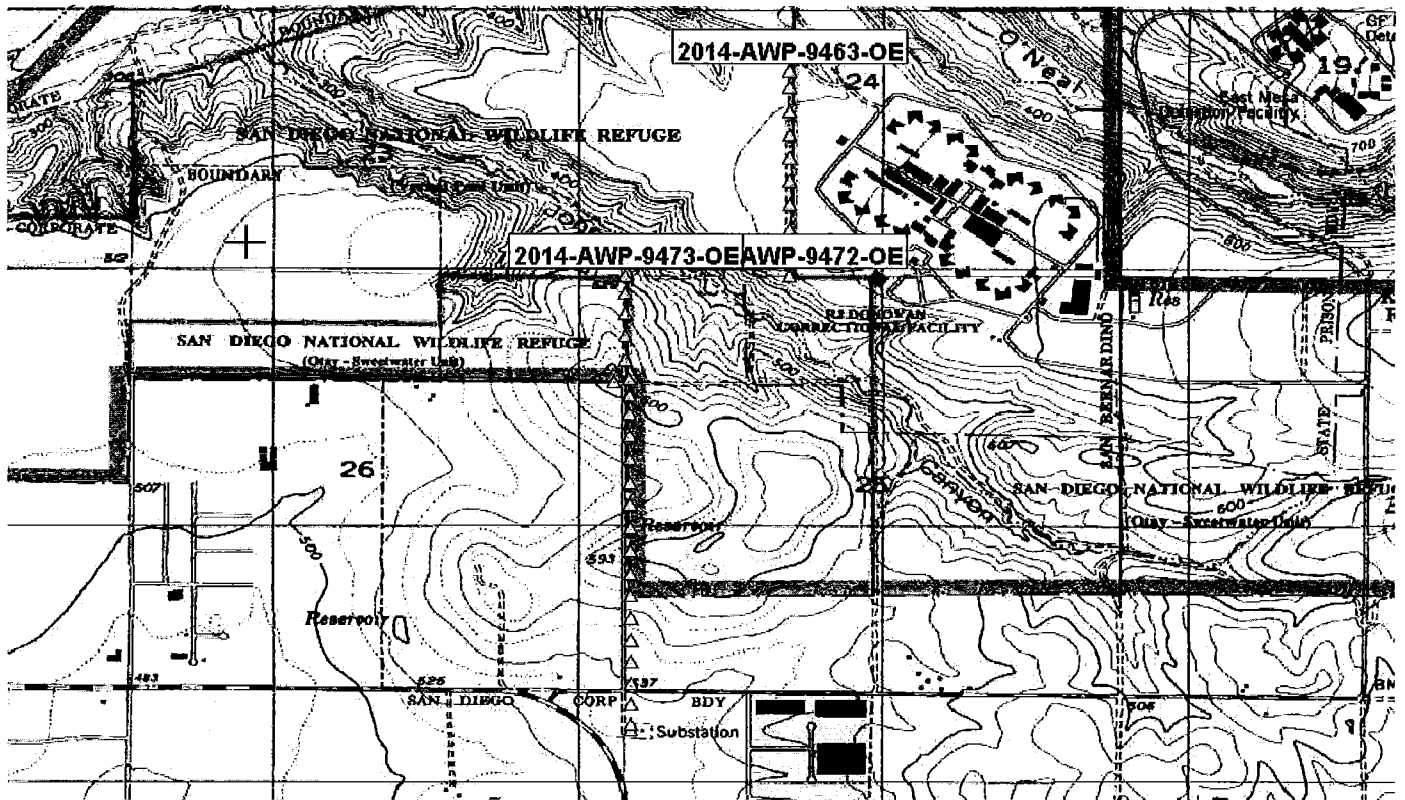
(DNE)

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2014-AWP-9485-OE

Replacing and increasing the height of an existing 56 ft. AGL wood 69kV transmission pole with a steel 70 ft. AGL 69kV transmission pole.

Verified Map for ASN 2014-AWP-9485-OE





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 Federal Aviation Administration
 Southwest Regional Office
 Obstruction Evaluation Group
 2601 Meacham Boulevard
 Fort Worth, TX 76193

Aeronautical Study No.
 2014-AWP-9486-OE

Issued Date: 02/27/2015

Joe Zulauf
 San Diego Gas & Electric
 8315 Century Park Ct., CP21C
 San Diego, CA 92123

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Transmission Line Z31757 - TL649
 Location: San Diego, CA
 Latitude: 32-34-23.71N NAD 83
 Longitude: 116-56-41.72W
 Heights: 578 feet site elevation (SE)
 79 feet above ground level (AGL)
 657 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
- Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

This determination expires on 08/27/2016 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-AWP-9486-OE.

Signature Control No: 236531625-244358108

(DNE)

Karen McDonald
Specialist

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2014-AWP-9486-OE

Replacing and increasing the height of an existing 57 ft. AGL wood 69kV transmission pole with a steel 79 ft. AGL 69kV transmission pole.



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 Federal Aviation Administration
 Southwest Regional Office
 Obstruction Evaluation Group
 2601 Meacham Boulevard
 Fort Worth, TX 76193

Aeronautical Study No.
 2014-AWP-9487-OE

Issued Date: 02/27/2015

Joe Zulauf
 San Diego Gas & Electric
 8315 Century Park Ct., CP21C
 San Diego, CA 92123

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Transmission Line Z31758 - TL649
 Location: San Diego, CA
 Latitude: 32-34-20.79N NAD 83
 Longitude: 116-56-41.70W
 Heights: 599 feet site elevation (SE)
 75 feet above ground level (AGL)
 674 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
- Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

This determination expires on 08/27/2016 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates , heights, frequency(ies) and power . Any changes in coordinates , heights, and frequencies or use of greater power will void this determination. Any future construction or alteration , including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-AWP-9487-OE.

Signature Control No: 236531626-244358110

(DNE)

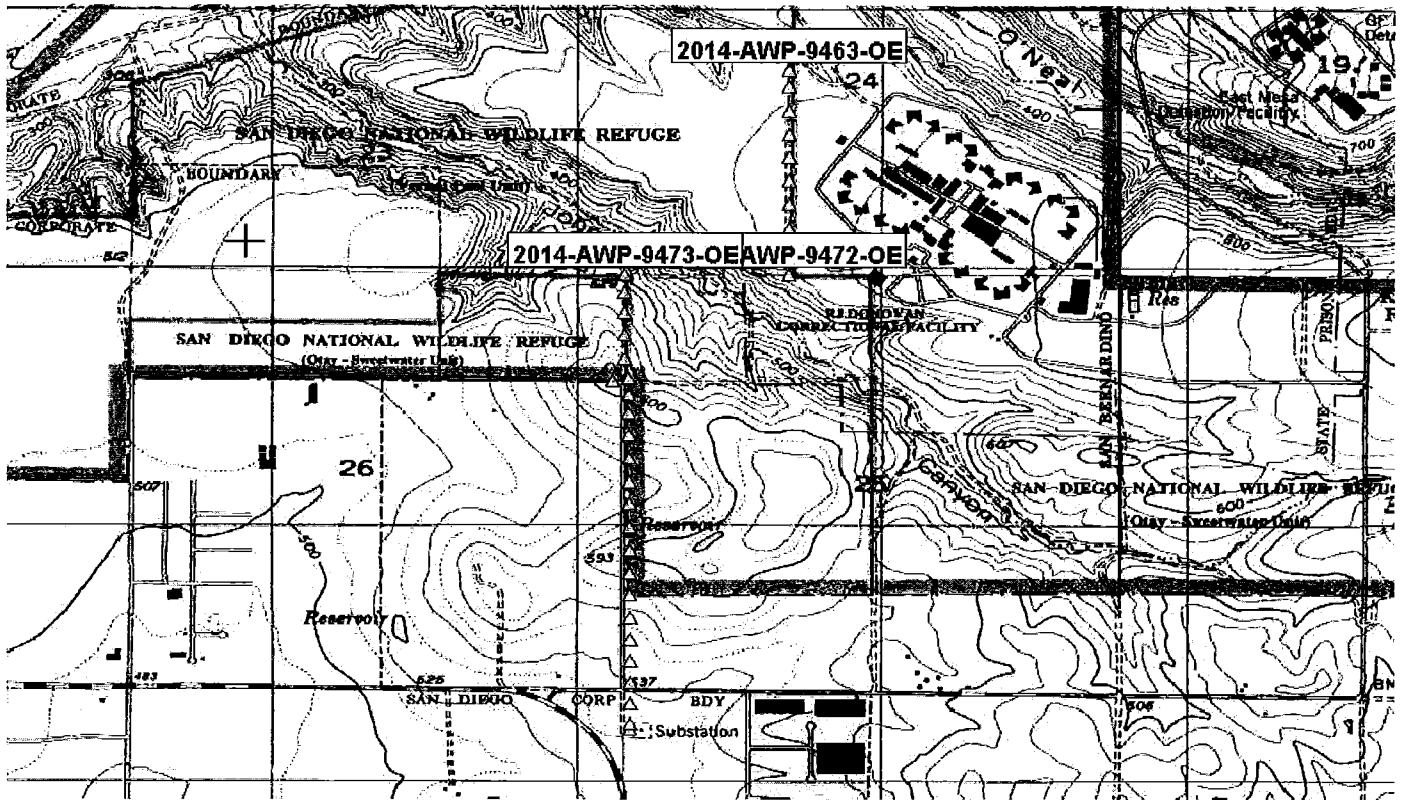
Karen McDonald
Specialist

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2014-AWP-9487-OE

Replacing and increasing the height of an existing 57 ft. AGL wood 69kV transmission pole with a steel 75 ft. AGL 69kV transmission pole.

Verified Map for ASN 2014-AWP-9487-OE





Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
2601 Meacham Boulevard
Fort Worth, TX 76193

Aeronautical Study No.
2014-AWP-9488-OE

Issued Date: 02/27/2015

Joe Zulauf
San Diego Gas & Electric
8315 Century Park Ct., CP21C
San Diego, CA 92123

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Transmission Line Z31759 - TL649
Location:	San Diego, CA
Latitude:	32-34-17.87N NAD 83
Longitude:	116-56-41.68W
Heights:	586 feet site elevation (SE) 70 feet above ground level (AGL) 656 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

Any height exceeding 70 feet above ground level (656 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

This aeronautical study included evaluation of a structure that exists at this time. Action will be taken to ensure aeronautical charts are updated to reflect the most current coordinates, elevation and height as indicated in the case description.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-AWP-9488-OE.

Signature Control No: 236531627-244357643

(DNE)

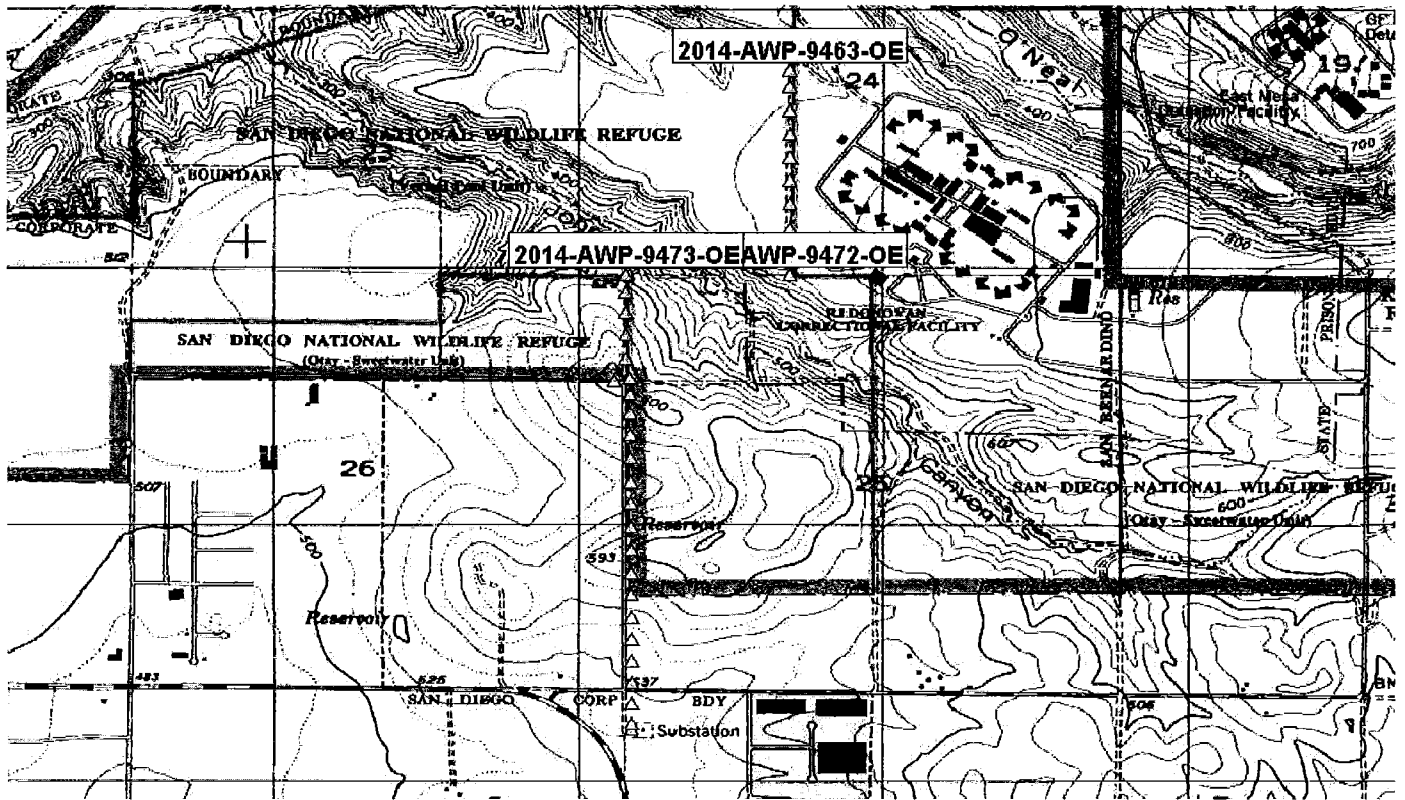
Karen McDonald
Specialist

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2014-AWP-9488-OE

Please review this existing 70 ft. AGL 69kV transmission structure in conjunction with this larger project. No changes will be made to this structure.

Verified Map for ASN 2014-AWP-9488-OE





Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
2601 Meacham Boulevard
Fort Worth, TX 76193

Aeronautical Study No.
2014-AWP-9489-OE

Issued Date: 02/27/2015

Joe Zulauf
San Diego Gas & Electric
8315 Century Park Ct., CP21C
San Diego, CA 92123

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Transmission Line Z31760 - TL649
Location:	San Diego, CA
Latitude:	32-34-15.11N NAD 83
Longitude:	116-56-41.67W
Heights:	569 feet site elevation (SE) 57 feet above ground level (AGL) 626 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

Any height exceeding 57 feet above ground level (626 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

This aeronautical study included evaluation of a structure that exists at this time. Action will be taken to ensure aeronautical charts are updated to reflect the most current coordinates, elevation and height as indicated in the case description.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-AWP-9489-OE.

Signature Control No: 236531628-244357642

(DNE)

Karen McDonald
Specialist

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2014-AWP-9489-OE

Please review this existing 57 ft. AGL 69kV transmission structure in conjunction with this larger project. No changes will be made to this structure.



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Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
2601 Meacham Boulevard
Fort Worth, TX 76193

Aeronautical Study No.
2014-AWP-9490-OE

Issued Date: 02/27/2015

Joe Zulauf
San Diego Gas & Electric
8315 Century Park Ct., CP21C
San Diego, CA 92123

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Transmission Line Z31761 - TL649
Location:	San Diego, CA
Latitude:	32-34-12.34N NAD 83
Longitude:	116-56-41.65W
Heights:	556 feet site elevation (SE) 56 feet above ground level (AGL) 612 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

Any height exceeding 56 feet above ground level (612 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

This aeronautical study included evaluation of a structure that exists at this time. Action will be taken to ensure aeronautical charts are updated to reflect the most current coordinates, elevation and height as indicated in the case description.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-AWP-9490-OE.

Signature Control No: 236531629-244357638

(DNE)

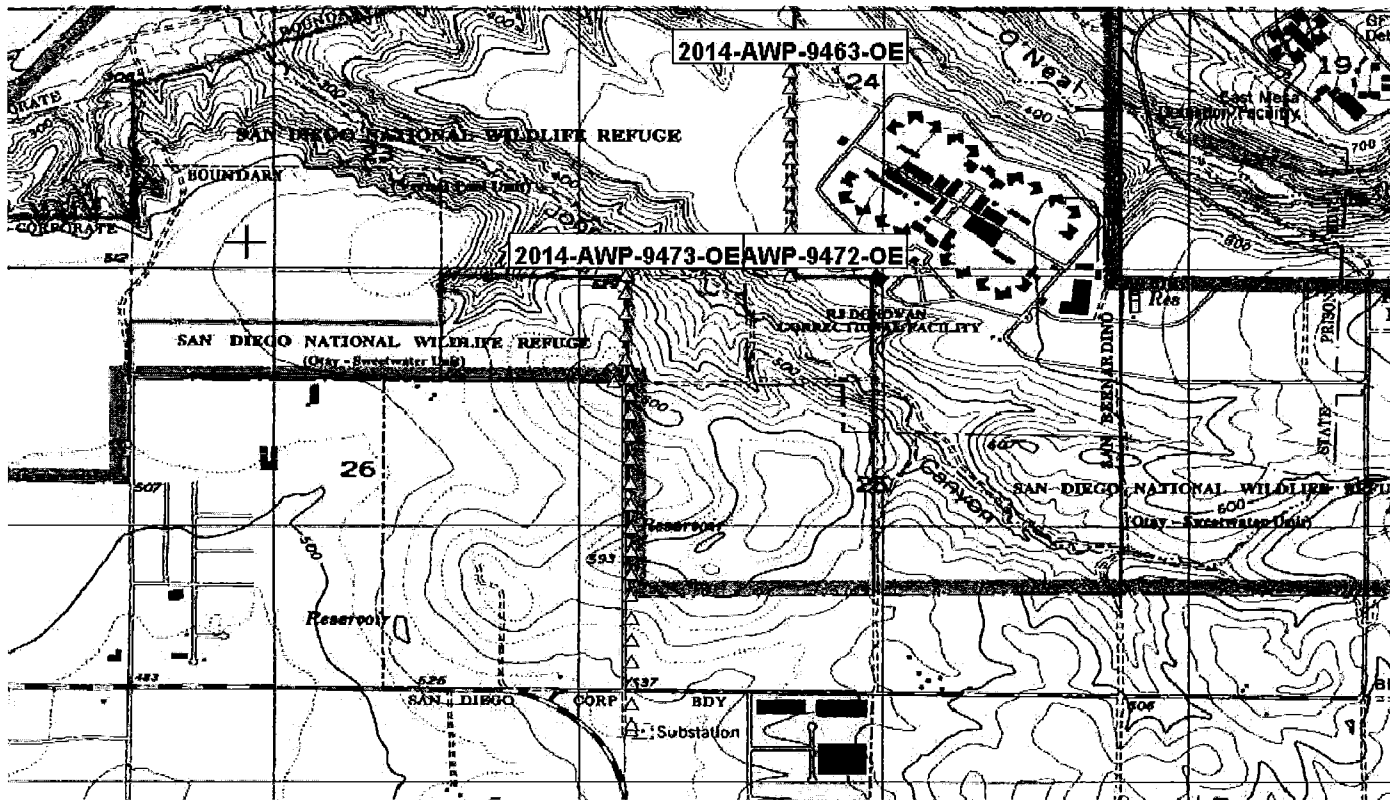
Karen McDonald
Specialist

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2014-AWP-9490-OE

Please review this existing 56 ft. AGL 69kV transmission structure in conjunction with this larger project. No changes will be made to this structure.

Verified Map for ASN 2014-AWP-9490-OE





Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
2601 Meacham Boulevard
Fort Worth, TX 76193

Aeronautical Study No.
2014-AWP-9491-OE

Issued Date: 02/27/2015

Joe Zulauf
San Diego Gas & Electric
8315 Century Park Ct., CP21C
San Diego, CA 92123

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Transmission Line Z31762 - TL649
Location:	San Diego, CA
Latitude:	32-34-09.56N NAD 83
Longitude:	116-56-41.63W
Heights:	549 feet site elevation (SE) 56 feet above ground level (AGL) 605 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

Any height exceeding 56 feet above ground level (605 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

This aeronautical study included evaluation of a structure that exists at this time. Action will be taken to ensure aeronautical charts are updated to reflect the most current coordinates, elevation and height as indicated in the case description.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-AWP-9491-OE.

Signature Control No: 236531630-244357641

(DNE)

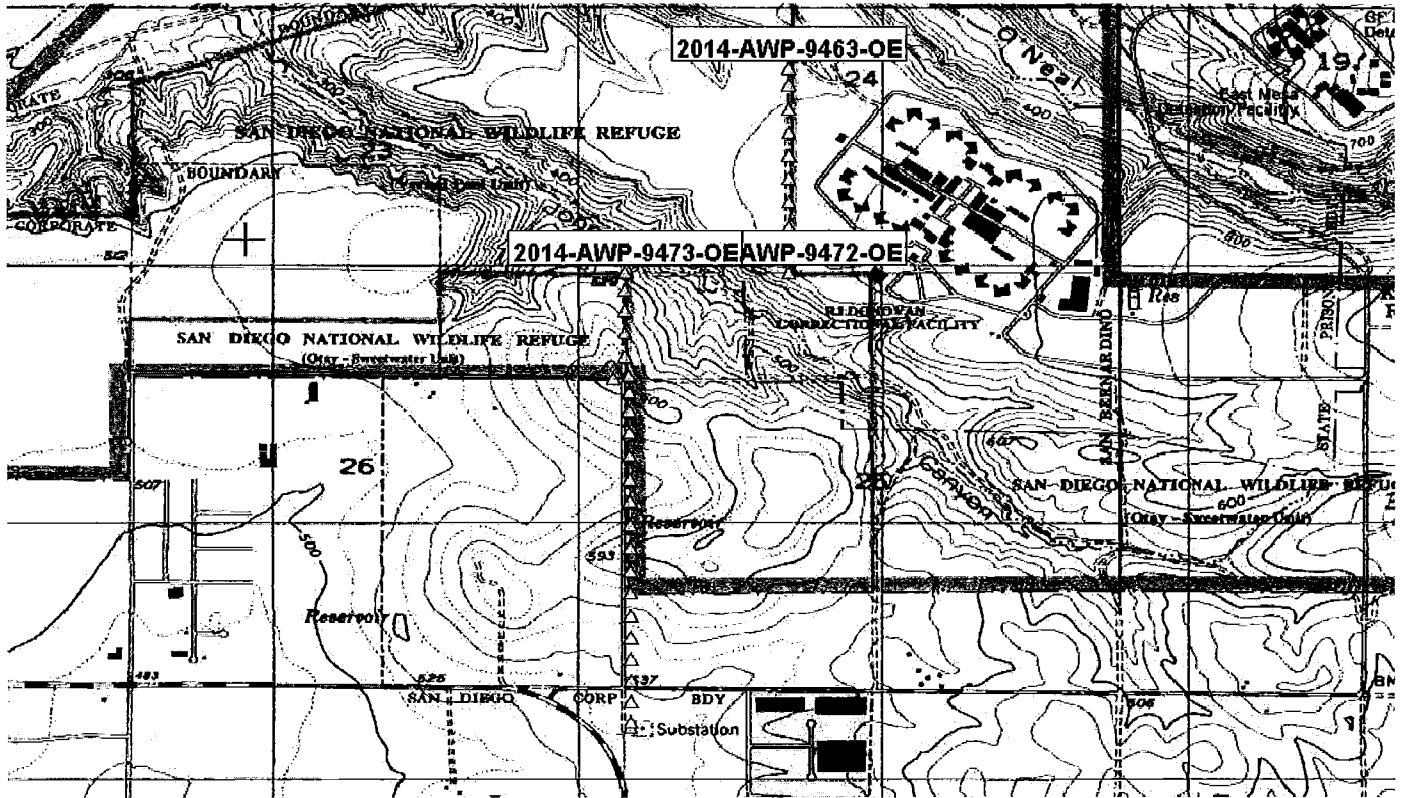
Karen McDonald
Specialist

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2014-AWP-9491-OE

Please review this existing 56 ft. AGL 69kV transmission structure in conjunction with this larger project. No changes will be made to this structure.

Verified Map for ASN 2014-AWP-9491-OE





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Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
2601 Meacham Boulevard
Fort Worth, TX 76193

Aeronautical Study No.
2014-AWP-9492-OE

Issued Date: 02/27/2015

Joe Zulauf
San Diego Gas & Electric
8315 Century Park Ct., CP21C
San Diego, CA 92123

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Transmission Line Z31763 - TL649
Location:	San Diego, CA
Latitude:	32-34-06.80N NAD 83
Longitude:	116-56-41.62W
Heights:	546 feet site elevation (SE) 57 feet above ground level (AGL) 603 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

Any height exceeding 57 feet above ground level (603 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

This aeronautical study included evaluation of a structure that exists at this time. Action will be taken to ensure aeronautical charts are updated to reflect the most current coordinates, elevation and height as indicated in the case description.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-AWP-9492-OE.

Signature Control No: 236531631-244357640

(DNE)

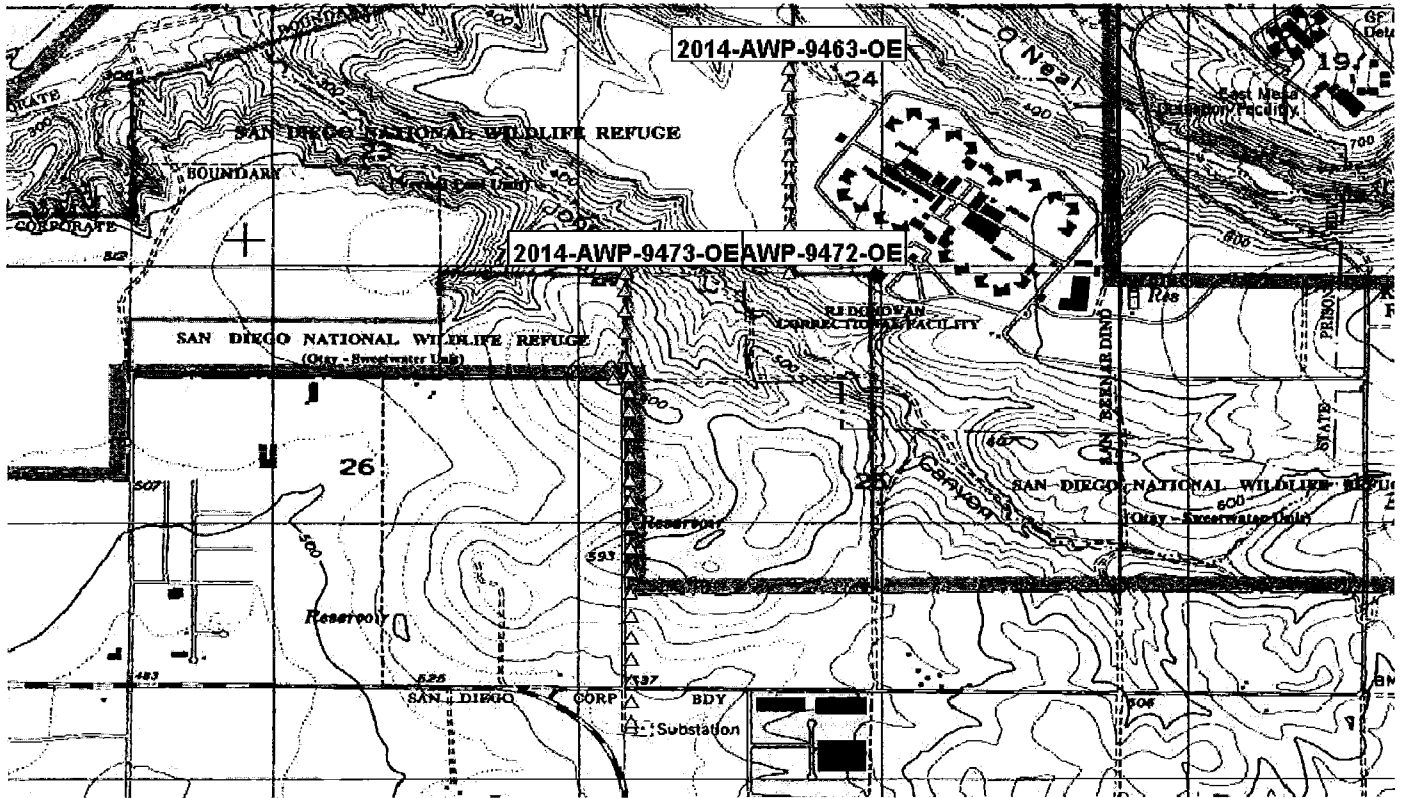
Karen McDonald
Specialist

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2014-AWP-9492-OE

Please review this existing 57 ft. AGL 69kV transmission structure in conjunction with this larger project. No changes will be made to this structure.

Verified Map for ASN 2014-AWP-9492-OE





Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
2601 Meacham Boulevard
Fort Worth, TX 76193

Aeronautical Study No.
2014-AWP-9493-OE

Issued Date: 02/27/2015

Joe Zulauf
San Diego Gas & Electric
8315 Century Park Ct., CP21C
San Diego, CA 92123

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Transmission Line Z31764 - TL649
Location:	San Diego, CA
Latitude:	32-34-04.05N NAD 83
Longitude:	116-56-41.60W
Heights:	543 feet site elevation (SE) 57 feet above ground level (AGL) 600 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

Any height exceeding 57 feet above ground level (600 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

This aeronautical study included evaluation of a structure that exists at this time. Action will be taken to ensure aeronautical charts are updated to reflect the most current coordinates, elevation and height as indicated in the case description.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-AWP-9493-OE.

Signature Control No: 236531632-244357636

(DNE)

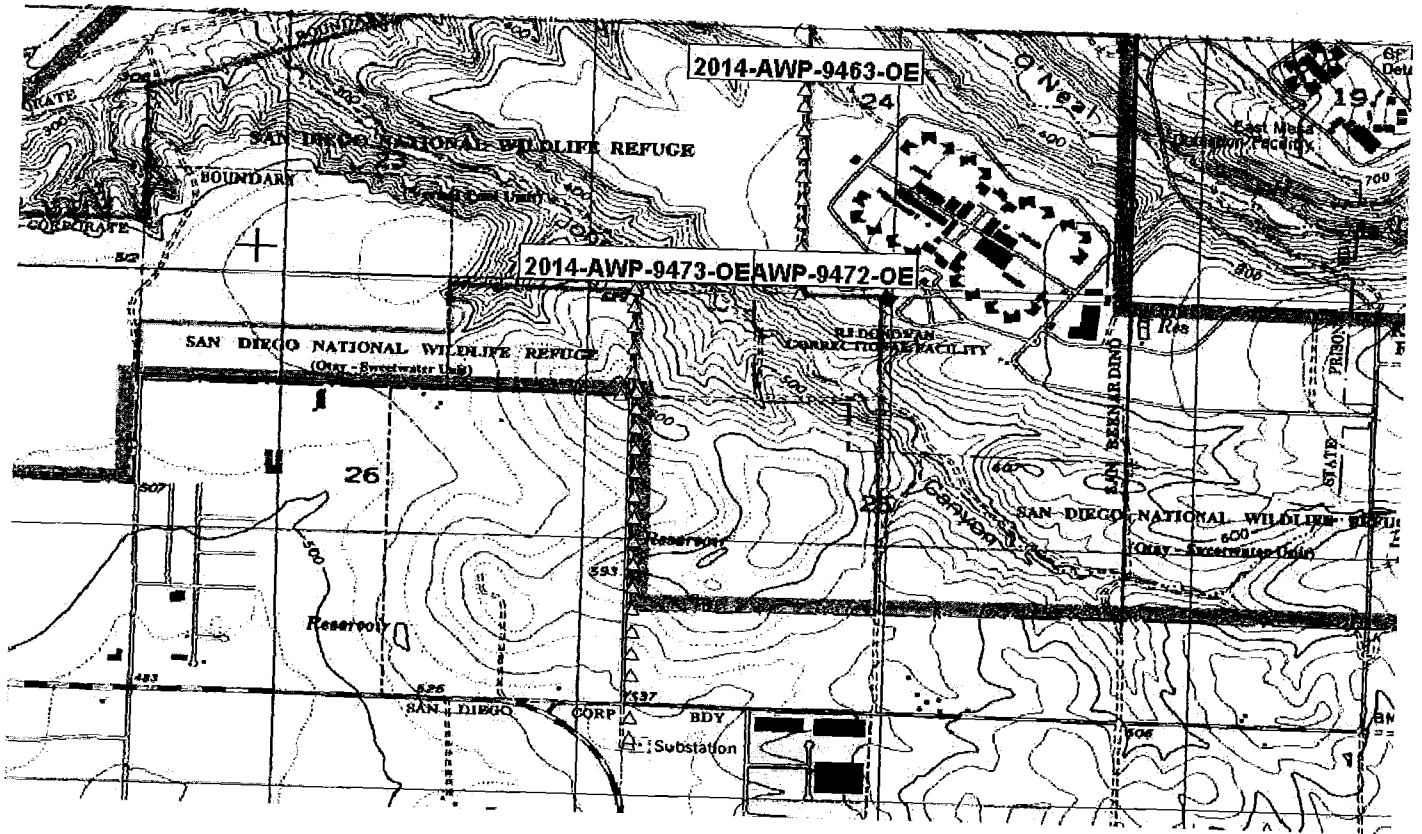
Karen McDonald
Specialist

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2014-AWP-9493-OE

Please review this existing 57 ft. AGL 69kV transmission structure in conjunction with this larger project. No changes will be made to this structure.

Verified Map for ASN 2014-AWP-9493-OE





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Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
2601 Meacham Boulevard
Fort Worth, TX 76193

Aeronautical Study No.
2014-AWP-9494-OE

Issued Date: 02/27/2015

Joe Zulauf
San Diego Gas & Electric
8315 Century Park Ct., CP21C
San Diego, CA 92123

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Transmission Line Z31765 - TL649
Location: San Diego, CA
Latitude: 32-34-01.46N NAD 83
Longitude: 116-56-41.63W
Heights: 543 feet site elevation (SE)
 55 feet above ground level (AGL)
 598 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

Any height exceeding 55 feet above ground level (598 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

This aeronautical study included evaluation of a structure that exists at this time. Action will be taken to ensure aeronautical charts are updated to reflect the most current coordinates, elevation and height as indicated in the case description.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-AWP-9494-OE.

Signature Control No: 236531633-244357639

(DNE)

Karen McDonald
Specialist

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2014-AWP-9494-OE

Please review this existing 55 ft. AGL 69kV transmission structure in conjunction with this larger project. No changes will be made to this structure.



Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
2601 Meacham Boulevard
Fort Worth, TX 76193

Aeronautical Study No.
2014-AWP-9495-OE

Issued Date: 02/27/2015

Joe Zulauf
San Diego Gas & Electric
8315 Century Park Ct., CP21C
San Diego, CA 92123

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Transmission Line Z31766 - TL649
Location:	San Diego, CA
Latitude:	32-33-58.83N NAD 83
Longitude:	116-56-41.65W
Heights:	538 feet site elevation (SE) 58 feet above ground level (AGL) 596 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

Any height exceeding 58 feet above ground level (596 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

This aeronautical study included evaluation of a structure that exists at this time. Action will be taken to ensure aeronautical charts are updated to reflect the most current coordinates, elevation and height as indicated in the case description.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-AWP-9495-OE.

Signature Control No: 236531634-244357637

(DNE)

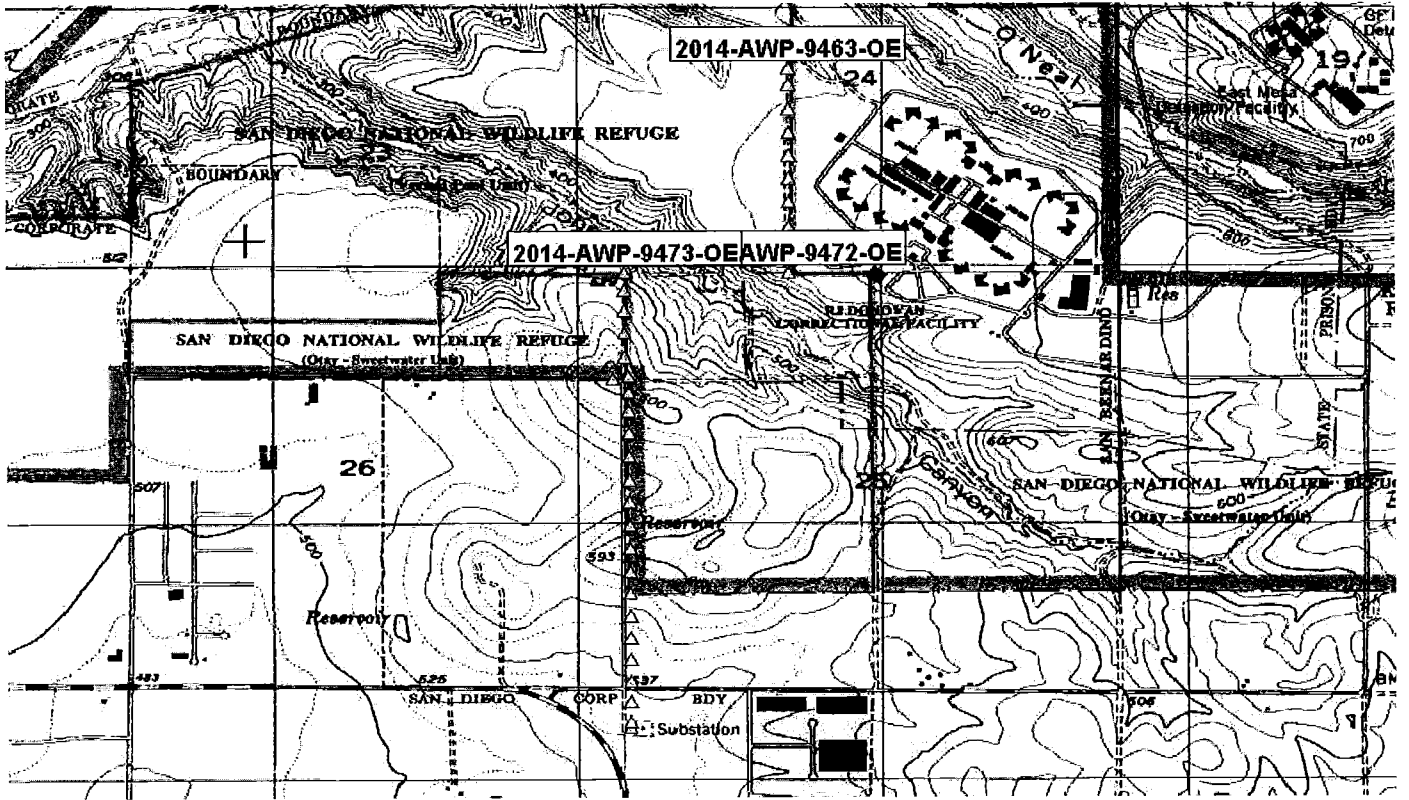
Karen McDonald
Specialist

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2014-AWP-9495-OE

Please review this existing 58 ft. AGL 69kV transmission structure in conjunction with this larger project. No changes will be made to this structure.

Verified Map for ASN 2014-AWP-9495-OE





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Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
2601 Meacham Boulevard
Fort Worth, TX 76193

Aeronautical Study No.
2014-AWP-9496-OE

Issued Date: 02/27/2015

Joe Zulauf
San Diego Gas & Electric
8315 Century Park Ct., CP21C
San Diego, CA 92123

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Transmission Line Z100705 - TL649
Location:	San Diego, CA
Latitude:	32-33-58.13N NAD 83
Longitude:	116-56-41.66W
Heights:	537 feet site elevation (SE) 56 feet above ground level (AGL) 593 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

Any height exceeding 56 feet above ground level (593 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

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This aeronautical study included evaluation of a structure that exists at this time. Action will be taken to ensure aeronautical charts are updated to reflect the most current coordinates, elevation and height as indicated in the case description.

If we can be of further assistance, please contact our office at (310) 725-6557. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-AWP-9496-OE.

Signature Control No: 236531635-244357635

(DNE)

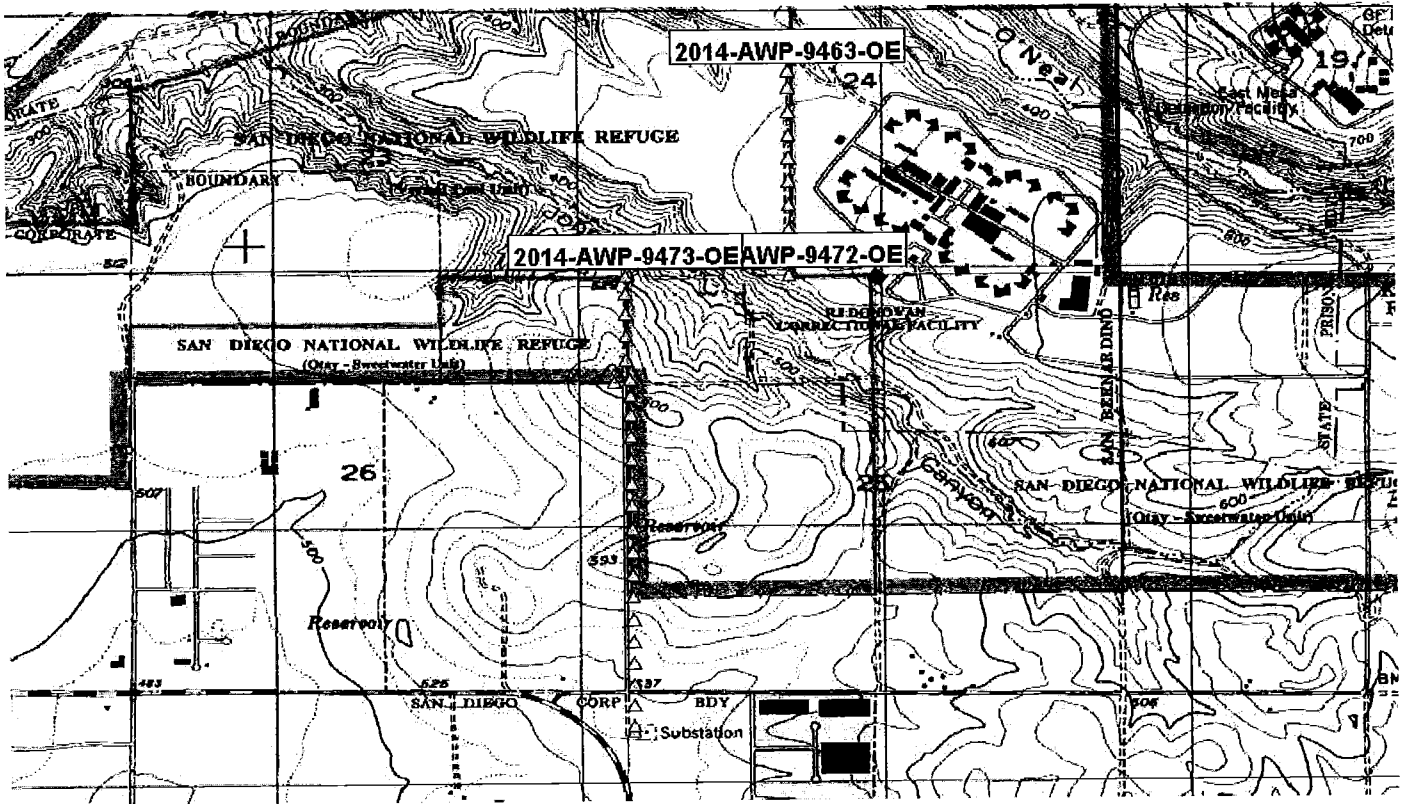
Karen McDonald
Specialist

Attachment(s)
Case Description
Map(s)

Case Description for ASN 2014-AWP-9496-OE

Please review this existing 56 ft. AGL 69kV transmission structure in conjunction with this larger project. No changes will be made to this structure.

Verified Map for ASN 2014-AWP-9496-OE



ATTACHMENT M: UPDATED WILL SERVE LETTER



...Dedicated to Community Service

2554 SWEETWATER SPRINGS BOULEVARD, SPRING VALLEY, CALIFORNIA 91978-2004
TELEPHONE: 670-2222, AREA CODE 619

www.otaywater.gov

April 4, 2016

Sent via electronic mail to: arenger@semprouilities.com

Project: P1438-010000

Activity: 3111

Andy Renger
Project Manager
San Diego Gas & Electric Company
8315 Century Park Court, CP21C
San Diego, CA 92123

SUBJECT: SDG&E 649 Project

Dear Mr. Renger:

Otay Water District (District) is in receipt of your email dated March 23, 2016, regarding water availability for the proposed SDG&E 649 Project starting at Heritage Road in Chula Vista heading eastbound towards SR-125 and then south past Donovan State Prison (Project). Our understanding is that water usage for the Project is estimated at 4.5 million gallons for the duration of construction.

The District has no objections with providing water for construction purposes for the above mentioned Project. San Diego Gas & Electric (SDG&E) and/or the Construction Contractor working on behalf of SDG&E will be responsible for all costs associated with obtaining temporary construction meter(s) and water usage during construction. The temporary construction meter(s) applications (**TEMPORARY WATER METERS (FOR USE ON HYDRANT)**) can be obtained from the District's web page at http://www.otaywater.gov/engineering/public_services.

Water availability is subject to all District requirements in effect at the time of application. You are strongly encouraged to adopt water conservation measures throughout the development. In response to Governor Brown's declaration of a statewide drought, calling on all Californians to save water, the District adopted Ordinance No. 551 on June 3, 2015 declaring a State Drought Emergency and calling for mandatory conservation to attain the State established target for the Otay Water District to reduce total potable water use by 20 percent of 2013 levels.

Andy Renger
SDG&E 649 Project
April 4, 2016
Page 2. of 2.

The applicant should contact all necessary agencies, including the Fire Department and sewer purveyors, for any requirements. The District should then be contacted at (619) 670-2241 regarding any other conditions that may have arisen since this letter was written for this Project.

Should you have any questions, please contact Public Services at (619) 670-2241 or via e-mail at pscounter@otaywater.gov.

Sincerely,
OTAY WATER DISTRICT

A handwritten signature in blue ink, appearing to read 'Dan Martin', with a long horizontal flourish extending to the right.

Dan Martin, P.E.
Engineering Manager

DM:jf

Enclosures: Code of Ordinances Sections 27, 31, 39, and 40
Code of Ordinances Appendix A Section 31 Fees