SECTION 2
Project Description

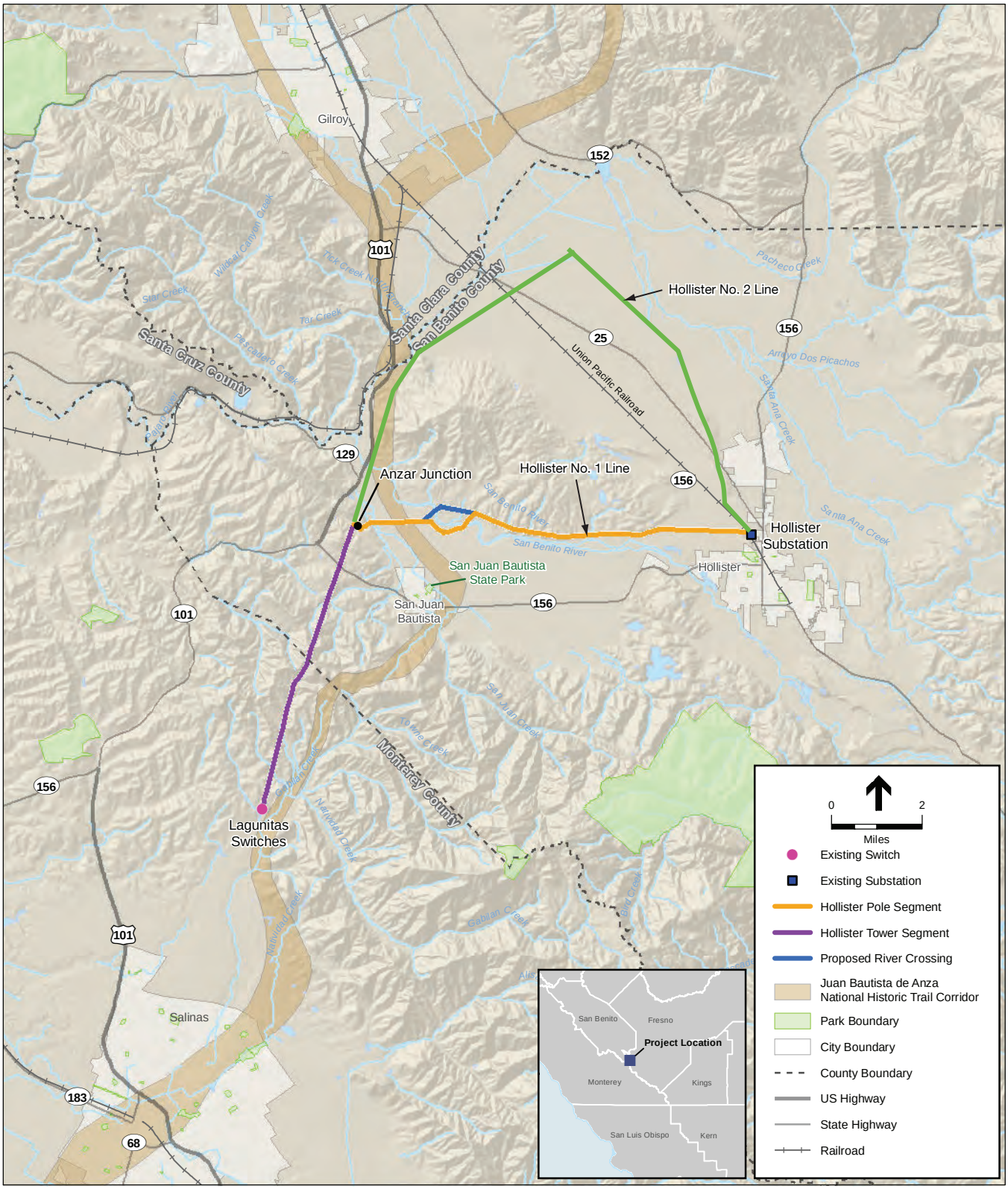
2.1 Introduction

Pacific Gas and Electric (PG&E), in its California Public Utilities Commission (CPUC) application (A.09-11-016), filed on November 23, 2009, requests to replace structures and conductors (reconductoring) on two segments, the Hollister Tower and Hollister Pole Segments, of an existing 115 kV overhead electric power line system in Monterey and San Benito Counties, pursuant to CPUC General Order (GO) 131-D. The application includes the Proponents Environmental Assessment (PEA) prepared pursuant to Rule 2.4 of the CPUC's Rules of Practice and Procedure.

PG&E, which currently operates the existing 115 kV overhead electric power line system in Monterey and San Benito Counties, requests to replace structures (e.g., towers and poles) and reconductor the Hollister Tower and Hollister Pole Segments, approximately seven and nine miles long, respectively (see **Figure 2-1**). The majority of the proposed alignment would be located in an existing PG&E easement on private property; an approximately 1.3-mile section of the 115 kV Hollister Pole Segment would be relocated out of the San Benito River floodplain (the existing river alignment) to a new river crossing with structures located on dry banks above the river (the Proposed River Crossing) while the existing distribution and topped poles would remain to serve local users. Approval of this project must comply with the California Environmental Quality Act (CEQA).

Under CEQA, the CPUC must prepare an Initial Study (IS) for discretionary projects such as the Proposed Project to determine whether the project may have a significant adverse effect on the environment. If an Initial Study prepared for a project indicates that such an impact could occur, the CPUC would be required to prepare an Environmental Impact Report (EIR). If an Initial Study does not reveal substantial evidence of such an effect, or if the potential effect can be reduced to a level of insignificance through project revisions, a Negative Declaration can be adopted (Public Resources Code, Division 13, Section 21080(c)(1)).

A Mitigated Negative Declaration (MND) may be adopted when "the Initial Study has identified potentially significant effects on the environment, but (1) revisions in the project plans or proposals made by, or agreed to by, the applicant before the proposed negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effect on the environment would occur, and (2) there is no



PG&E, 2010; ESRI, 2010; NPS, 2010

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Figure 2-1

Proposed Project Location and Overview

substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment" (Public Resources Code, Division 13, Section 21064.5).

This IS/MND considers the potential environmental impacts from PG&E's Hollister 115 kilovolt (kV) Power Line Reconductoring Project (Proposed Project). The information presented here was extracted from PG&E's Application for a Permit to Construct (PTC) (PG&E, 2009a), the Proponent's Environmental Assessment (PEA) (PG&E, 2009b), and PG&E's responses to data requests by the CPUC's CEQA review team, including Environmental Science Associates (ESA), a consulting firm CPUC has retained to assist in its review (PG&E, 2009c). This information is intended to provide a detailed description of project construction, operation and maintenance, serving to provide a common understanding of the project parameters.

2.2 Project Location

The Proposed Project is located in Monterey and San Benito Counties near the cities of Hollister and San Juan Bautista (**Figure 2-1**). The Hollister Tower and Hollister Pole Segments would generally traverse the existing PG&E right-of-way (ROW), across open space and agricultural lands and passing a few scattered residences along the alignment. The Proposed River Crossing would be located in new ROW and would primarily traverse through agricultural rangeland.

2.3 Existing System

The Hollister Substation serves an Electrical Needs Area which includes both the cities of Hollister and San Juan Bautista. In the existing power line system configuration, the Hollister Substation is supplied by two115 kV power line circuits, known as the Hollister Nos. 1 and 2 115 kV lines, that begin as a section of the Moss Landing–Salinas–Soledad 115 kV power line at the Lagunitas Switches (see **Figure 2-1**). From this connection, both power lines travel north on a single tower line. Near Anzar Junction, the Hollister No. 1 line heads due east to the Hollister Substation. The Hollister No. 2 line continues to the north, then turns east and then south to reach the Hollister Substation. The existing Hollister No. 1 and No.2 115 kV power lines are comprised of 2/0 and 3/0 copper conductors.

Currently, if there is an outage on one of the 115 kV power lines serving the Hollister Substation, the entire load is served from the remaining line.

2.4 PG&E's Proposed Project

The Proposed Project consists of the following activities; a more detailed description of the individual project components is included in Section 2.5:

- **Hollister Tower Segment:** Replacement of approximately 36 of the 38 existing towers with new lattice steel towers (LSTs) and installation of one new LST, resulting in a total of 39 LSTs in the seven-mile section of the existing double-circuit Moss Landing-Salinas-Soledad 115 kV power line, beginning at the Lagunitas Switches and extending north to a point near the Anzar Junction.

- **Hollister Pole Segment:** Replacement of 154 single-circuit wood poles with 135 new double-circuit light-duty steel (LDS) poles and installation of 30 additional new tubular steel poles (TSPs) along an existing nine-mile section of the Hollister No. 1 115 kV power line, with the exception of the Proposed River Crossing described below, resulting in a total of 165 poles. The Hollister Pole Segment would begin at the northern end of the Hollister Tower Segment and extend east to the Hollister Substation.

  - ***Proposed River Crossing***:

    - Relocation of an approximately 1.3 mile segment of the 115 kV Hollister No. 1 line out of the San Benito River floodplain (the existing river alignment) to a new river crossing approximately 3,000 feet to the north, with structures located on dry banks of the river (the Proposed River Crossing). The Proposed River Crossing would require installation of 21 new steel poles, including four 92-foot tall TSPs outside of each bank of the river channel.

    - Topping of 17 existing poles within the 1.3 mile segment so that existing distribution remains to serve local users.

- **Conductors:** Installation of a 477 kcmil (circular wire gauge size = 1,000 circular mils) steel-supported aluminum conductor (SSAC) on both the Hollister Tower and Hollister Pole Segments.

- **Hollister Substation:** Upgrade of the Hollister Substation, including relocation of two existing poles, updating relay settings, and changing the 115 kV bus conductors.

Figure 2-1 shows the general location and alignment of the Proposed Project relative to the existing system.

2.5 Project Components

A summary of the key components of the Proposed Project is provided **Table 2-1**, followed by a more detailed discussion by component.

TABLE 2-1
SUMMARY OF PROJECT COMPONENTS

Hollister Tower Segment

- Line length: Approximately seven miles.
- Conductor: Reconstruct both circuits of the existing double-circuit 115 kV power line with installation of two circuits of 477 thousand circular mils (kcmil) SSAC conductor, 0.846 inch in diameter. Each circuit would have three conductors. The minimum ground to conductor clearance would be 30 feet.
- Replace 36 of the 38 existing towers with new LSTs and install one new LST along the existing alignment; retain two existing towers resulting in 39 towers within the existing alignment. The towers to be removed would be replaced with new towers similar in size and design.
- Structures to be installed: 37 LSTs.
- Structure heights: Similar to existing; averaging 82 feet above ground surface (ags).
- Span lengths: Between 51 feet to 1,847 feet, averaging approximately 850 feet long.
- Footings: Each LST would be built on four drilled pier concrete footings. A typical footing would be approximately three feet aboveground; subsurface dimensions of each footing would depend on variables such as topography, tower height, span length, and soil properties.

Hollister Pole Segment

- Line length: Approximately nine miles.
- Conductor: Reconstruct existing single-circuit 115 kV subtransmission line as a double-circuit 115 kV subtransmission line, utilizing a 477 kcmil SSAC conductor (0.846 inch in diameter) for each circuit; each circuit would have three conductors; minimum ground to conductor clearance would be 30 feet.
- Replace 154 existing poles with a combination of 30 TSPs and 135 LDS poles (total number of poles: 165) in the same alignment, except for the Proposed River Crossing (discussed below).
- Structures: Combination of TSPs and LDS poles with a rusted brown finish.
- Pole size: Approximately 70 to 95 feet in height (approximately five to 10 feet taller than existing poles) and approximately two to seven feet in diameter at the base (existing wood poles are approximately 18 inches to 24 inches at the base).
- Span lengths: Between 94 feet to 935 feet, averaging approximately 295 feet long.
- **River Crossing:**
  - Existing River Alignment: Top 17 wood poles, 12 of which are located in the floodplain of the San Benito River and five of which are located in the agricultural field west of the river; topping refers to shortening of poles by removing the existing power line and cutting down the excess length to the level of the lower distribution line. Remove approximately eight poles within the floodplain.
  - Proposed River Crossing: Install approximately 21 new steel poles, four TSPs and 17 LDS poles, approximately 3,000 feet north of the existing river alignment.

Hollister Substation Modifications

- Relocate two existing poles on the substation property
- Update relay setting
- Change the 115 kV bus conductors

SOURCE: PG&E, 2009b and 2010.

2.5.1 Hollister Tower Segment

The Hollister Tower Segment would consist of a seven-mile section of the existing double-circuit Moss Landing-Salinas-Soledad 115 kV power line, beginning at the Lagunitas Switches near the intersection of Crazy Horse Road and San Juan Grade Road in Monterey County and extending northerly to a location near the Anzar Junction, approximately 1.5 miles northwest of the City of San Juan Bautista, in San Benito County. The Hollister Tower Segment would traverse a series of steep hills with various vegetative covers, including low-lying grasses, shrubs, and trees. The segment would also traverse through an existing residential development located along Avenida Del Piero and would cross State Route (SR) 156.

The Hollister Tower Segment would include replacement of 36 of the 38 existing LSTs with new LSTs that are similar in size and design. Two existing LSTs would be retained and one new LST would be installed, resulting in a total of 39 LSTs within the alignment described above. The segment would also include replacement of both circuits of the double-circuit 115 kV power line conductors with a 477 kcmil SSAC that is approximately 0.846 inches in diameter. The Hollister Tower Segment alignment is shown in **Figures 2-2a** through **2-2e**.

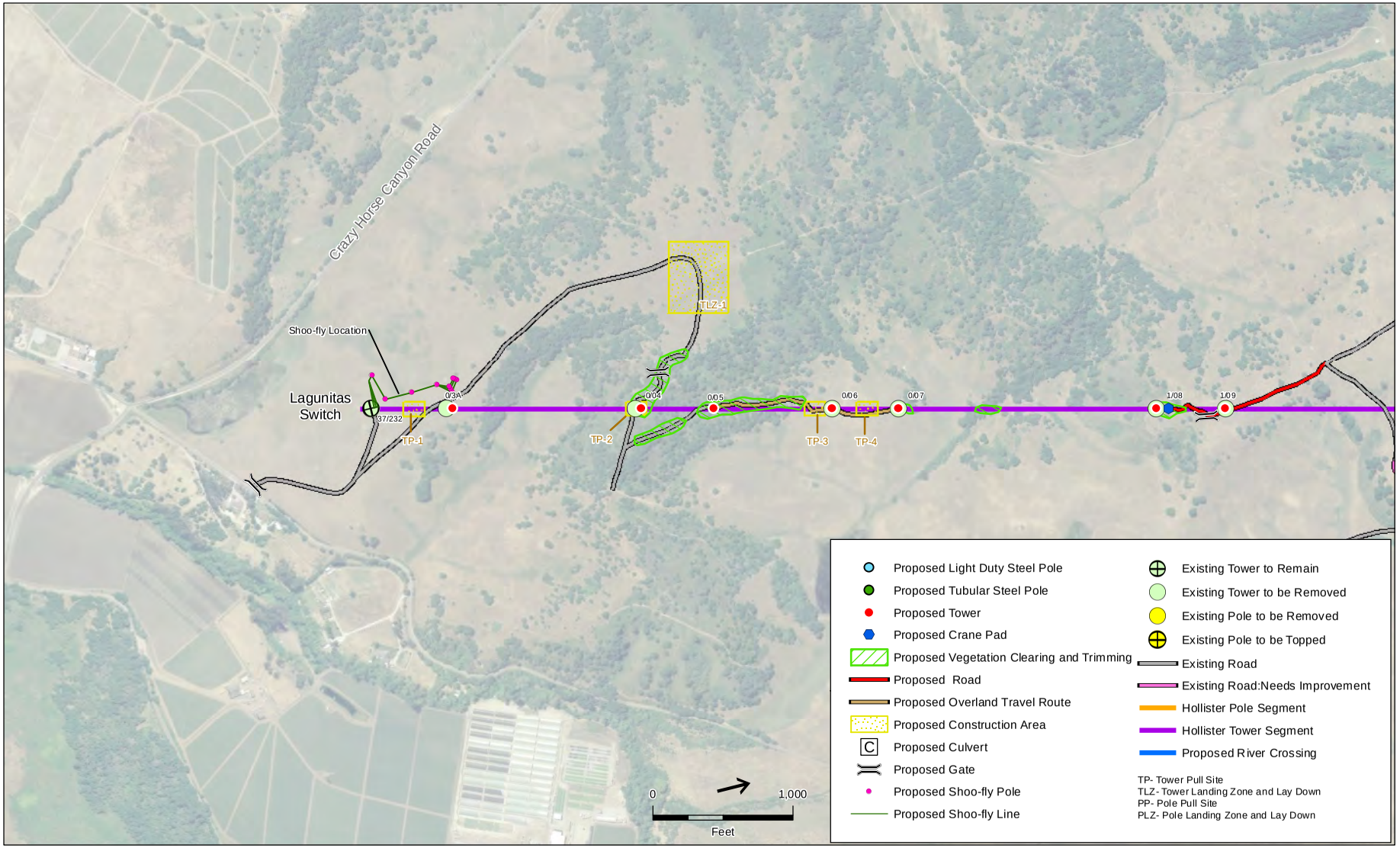
2.5.2 Hollister Pole Segment

The Hollister Pole Segment would consist of an approximately nine-mile section of the Hollister No. 1 115 kV power line, including the 1.3-mile Proposed River Crossing (described below). The Hollister Pole Segment would begin at the north end of the Hollister Tower Segment, and extend easterly to the Hollister Substation, located north of the City of Hollister and approximately one-quarter mile west of San Felipe Road. Heading east from the Hollister Tower Segment, the Hollister Pole Segment would cross the San Andreas Rift Zone before entering the San Juan Valley. East of the San Andres Rift zone, the segment would continue easterly through agricultural fields before crossing the San Benito River and entering the Flint Hills. The alignment would continue in the Flint Hills for several miles, then traverse agricultural fields and cross the Union Pacific Railroad before reaching the Hollister Substation.

The Hollister Pole Segment would include removal of 154 wooden poles and installation of 135 LDS poles and 30 TSPs within existing and new ROW. The existing single-circuit 115 kV power line within the Hollister Pole Segment would be reconstructed as a double-circuit 115 kV power line, utilizing 477 kcmil SSAC for each circuit. The Hollister Pole Segment alignment is shown in **Figures 2-2e** through **2.2i**.

2.5.2.1 Proposed River Crossing

Approximately 12 wood poles located in the floodplain of the San Benito River, as well as five poles located in an adjacent agricultural field, would be “topped” (e.g., shortened by removing the existing power line and cutting down the excess length to the level of the lower distribution line), allowing the existing distribution line to continue to serve nearby customers. In addition, approximately eight poles that do not support the existing distribution line would be removed from this segment of the proposed Hollister Pole Segment. Approximately 21 new steel poles, four TSPs and 17 LDS poles, would be installed to accommodate the Proposed River Crossing, located approximately 3,000 feet north of the existing river alignment.



Source: PG&E, 2010; Microsoft Virtual Earth, 2010

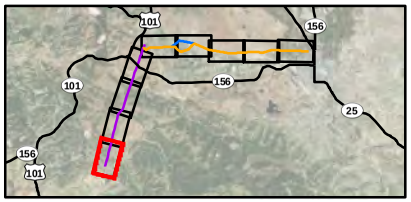


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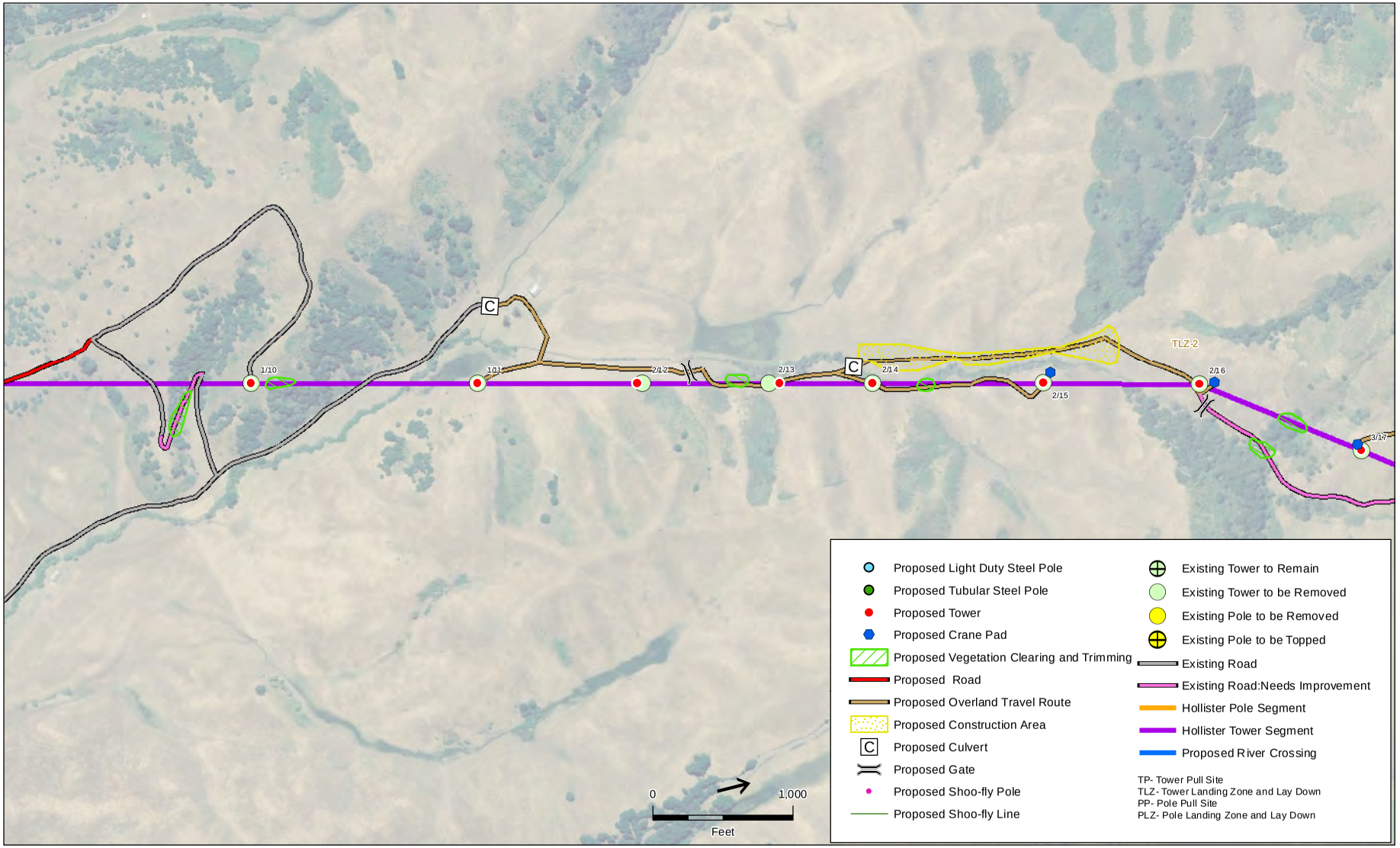
Figure 2-2 a

Proposed Project



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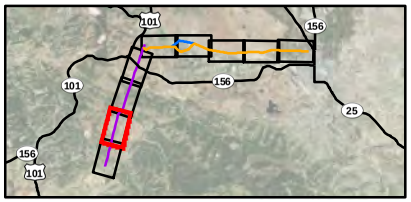

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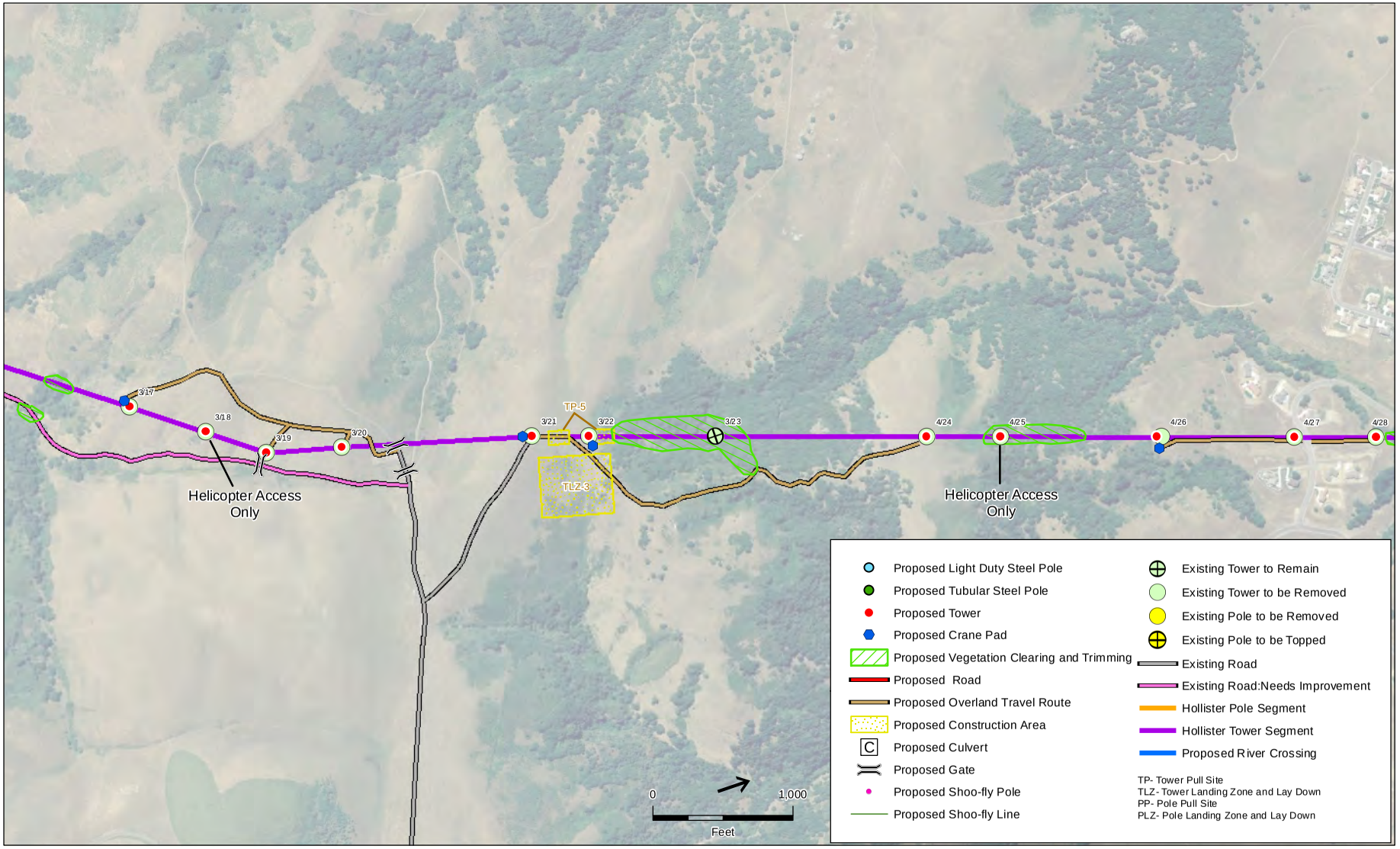
Figure 2-2 b

Proposed Project



Source: PG&E, 2010; Microsoft Virtual Earth, 2010

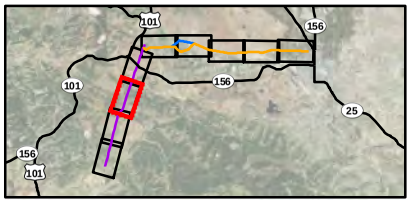


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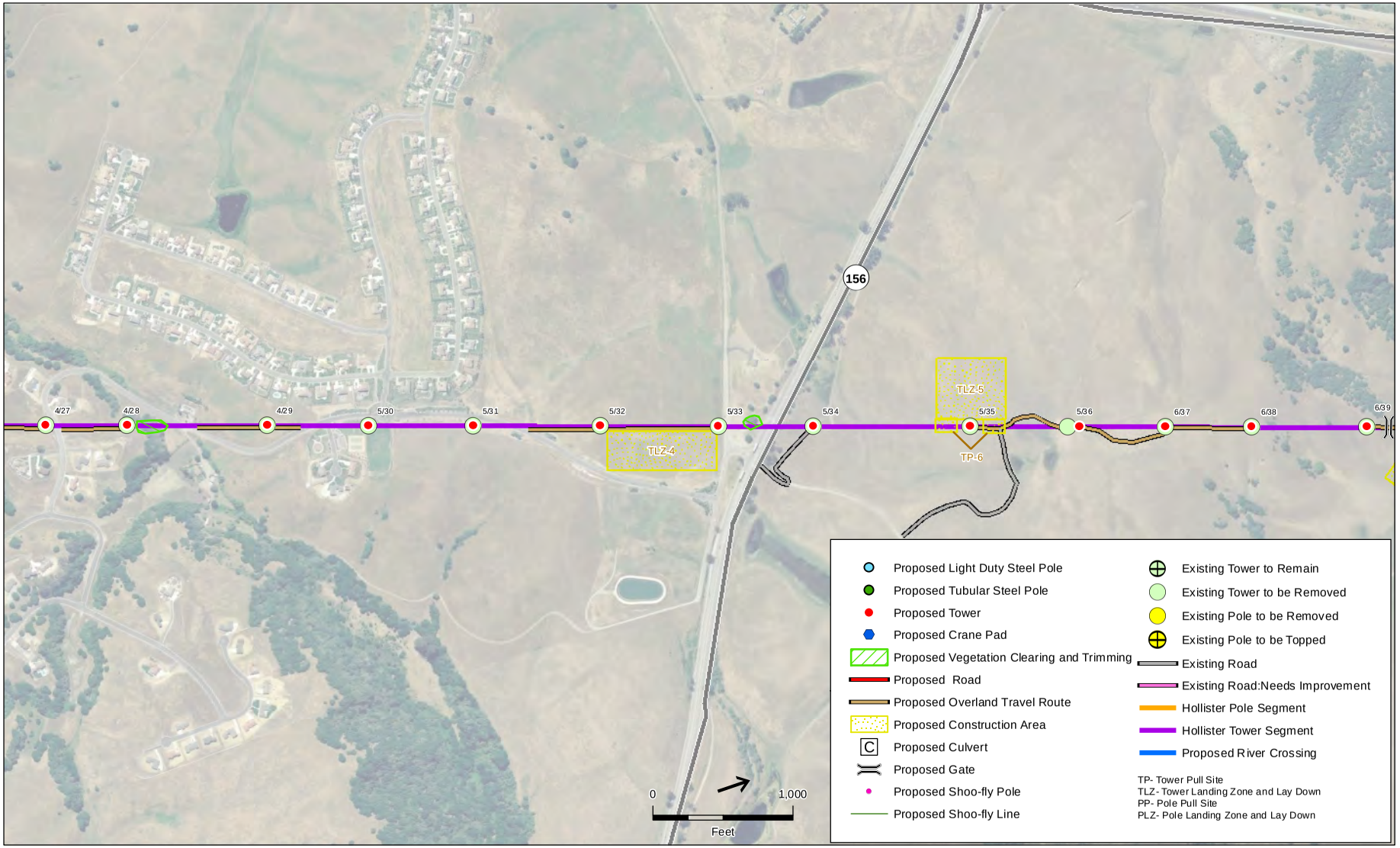
Figure 2-2 c

Proposed Project



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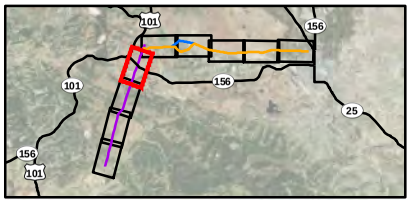

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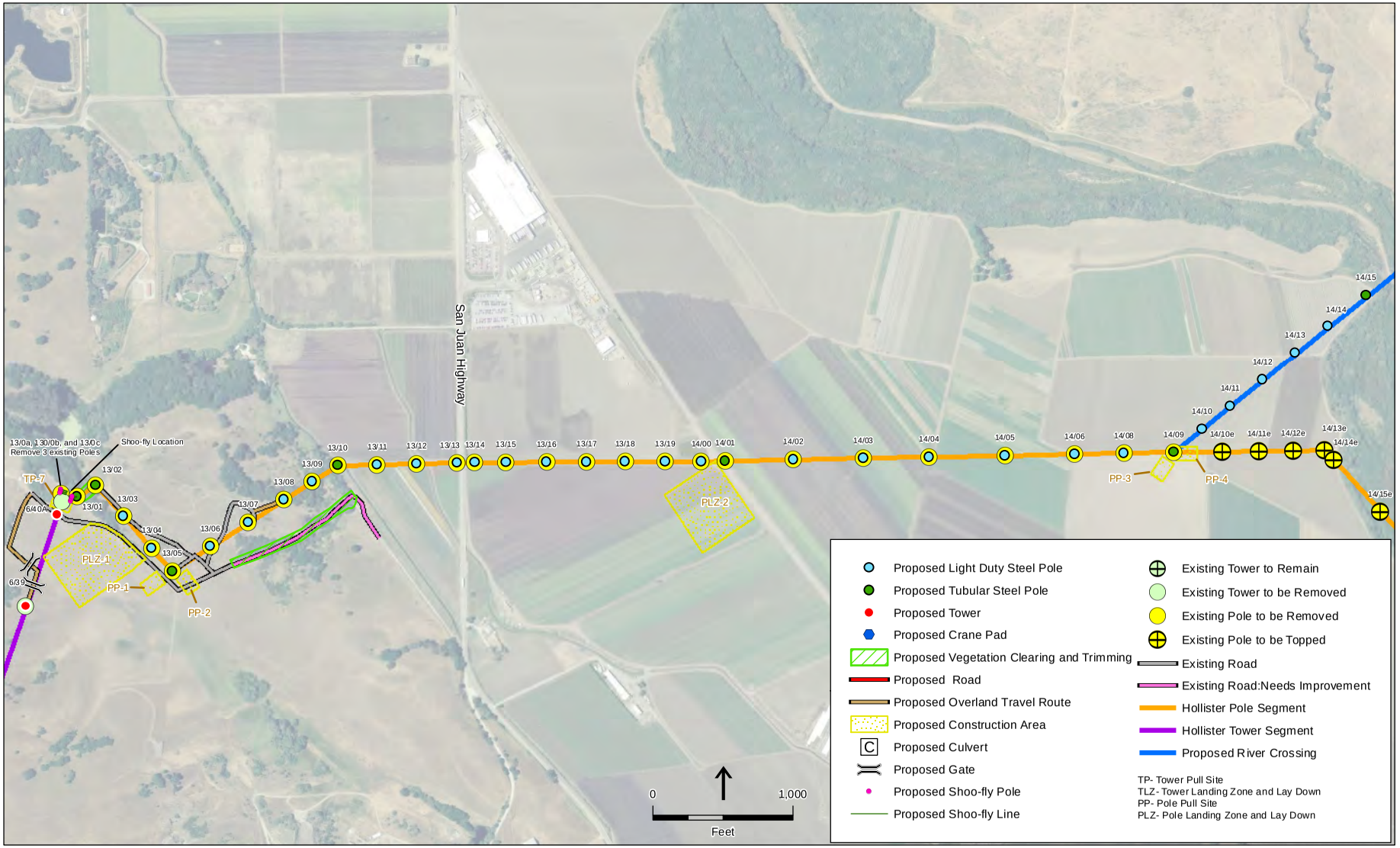
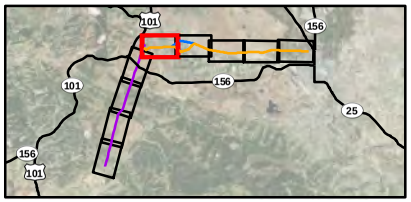
Figure 2-2 d

Proposed Project



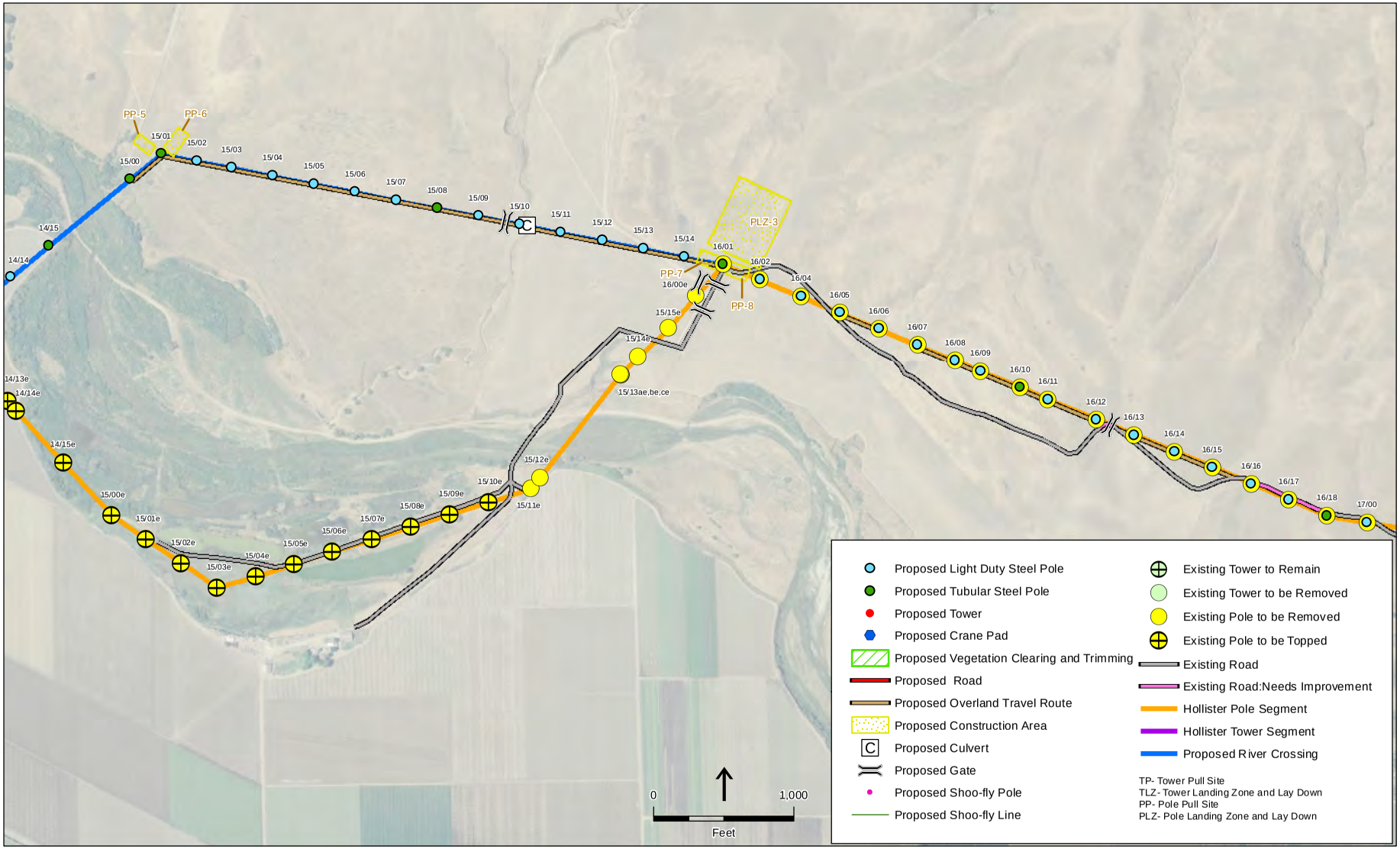
Source: PG&E, 2010; Microsoft Virtual Earth, 2010



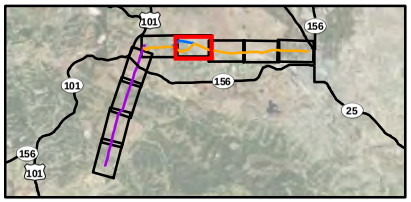
Hollister 115 kV Power Line Reconductoring Project . 207584.03

Figure 2-2 e

Proposed Project



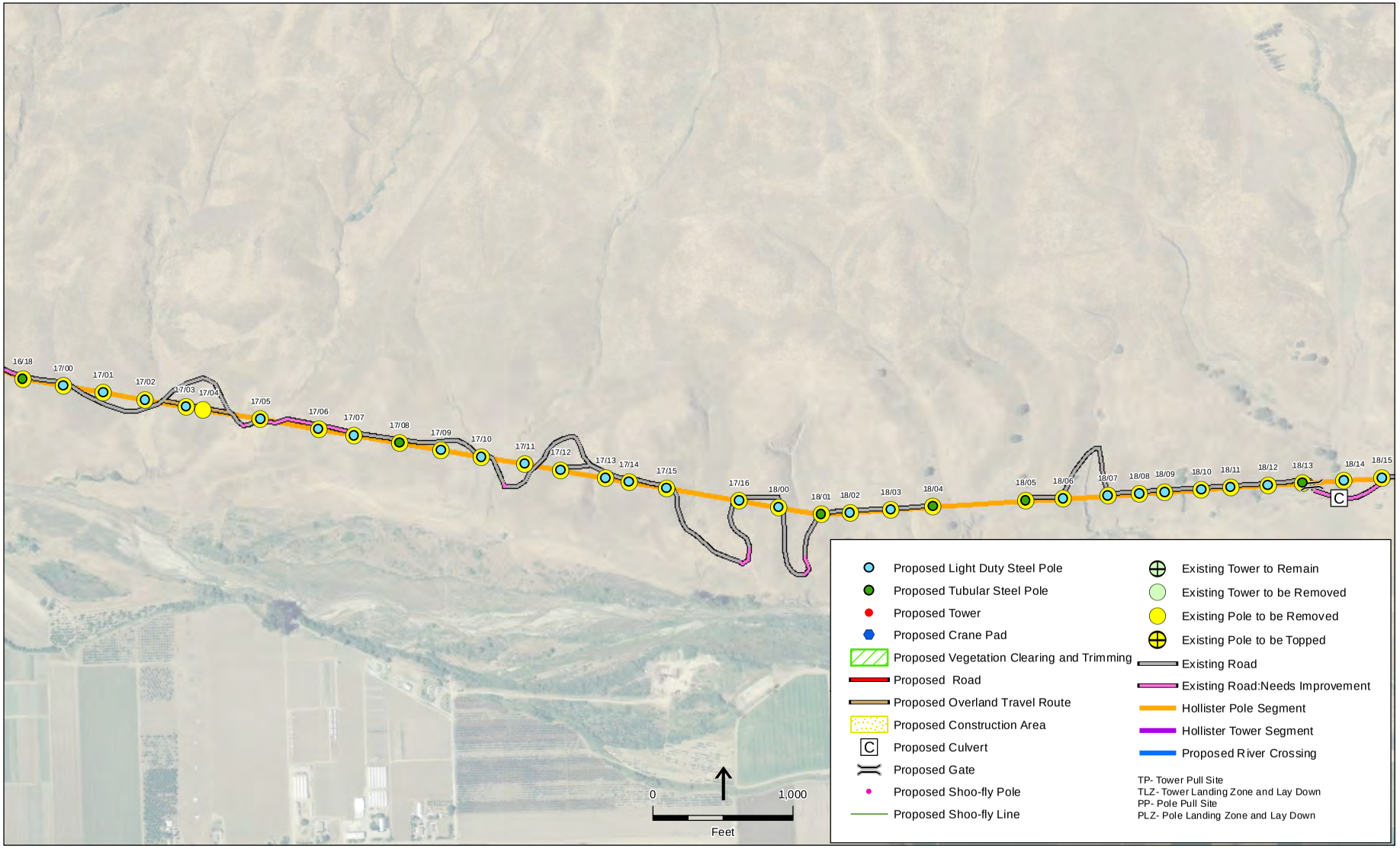
Source: PG&E, 2010; Microsoft Virtual Earth, 2010



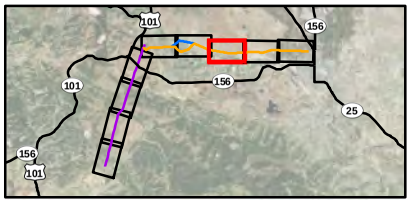
Hollister 115 kV Power Line Reconductoring Project . 207584.03

Figure 2-2 f

Proposed Project



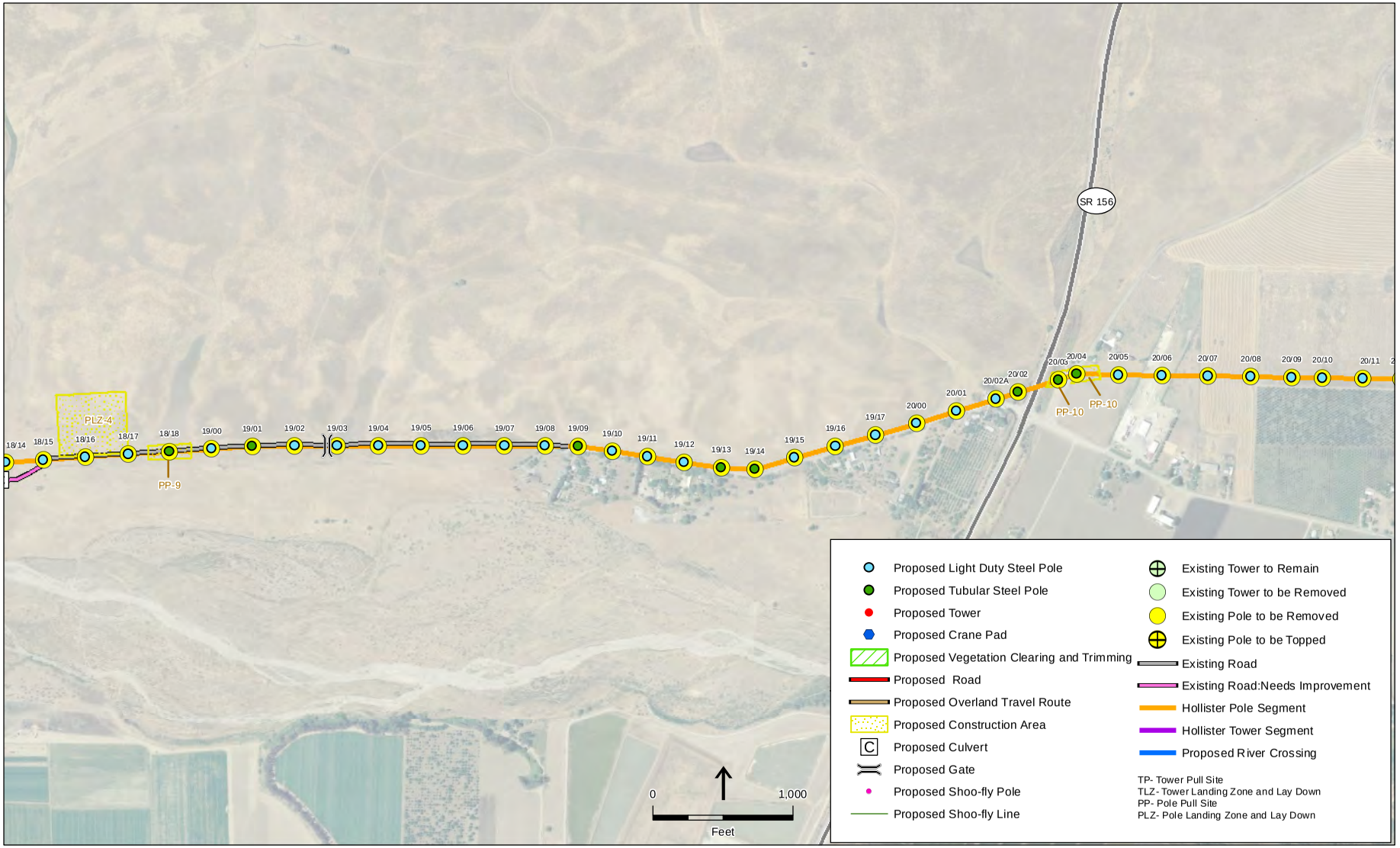
Source: PG&E, 2010; Microsoft Virtual Earth, 2010



Hollister 115 kV Power Line Reconductoring Project . 207584.03

Figure 2-2 g

Proposed Project



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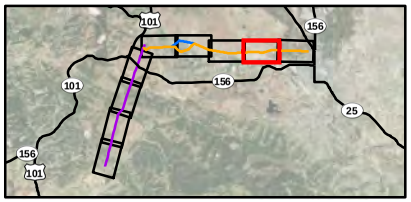

Hollister 115 kV Power Line Reconductoring Project . 207584.03

Figure 2-2 h

Proposed Project

Source: PG&E, 2010; Microsoft Virtual Earth, 2010

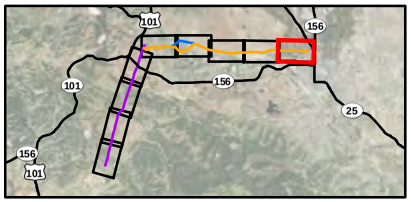

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Figure 2-2 i

Proposed Project

2.5.3 Poles and Towers

The Hollister Tower Segment would be constructed with new LSTs similar in design to the existing towers. The typical designs for these towers are shown in **Figure 2-3**. Approximately 36 of the existing 38 towers would be replaced along the existing alignment and one new tower would be installed. Two existing towers would be retained. The span length between the new LSTs would range from approximately 51 to 1,847 feet, with an average span of approximately 850 feet. Each LST would be built on four drilled pier concrete footings. On average, a typical footing would be approximately three feet aboveground; however, the subsurface dimension of each footing would be dependent on variables such as topography, tower height, span length, and soil properties.

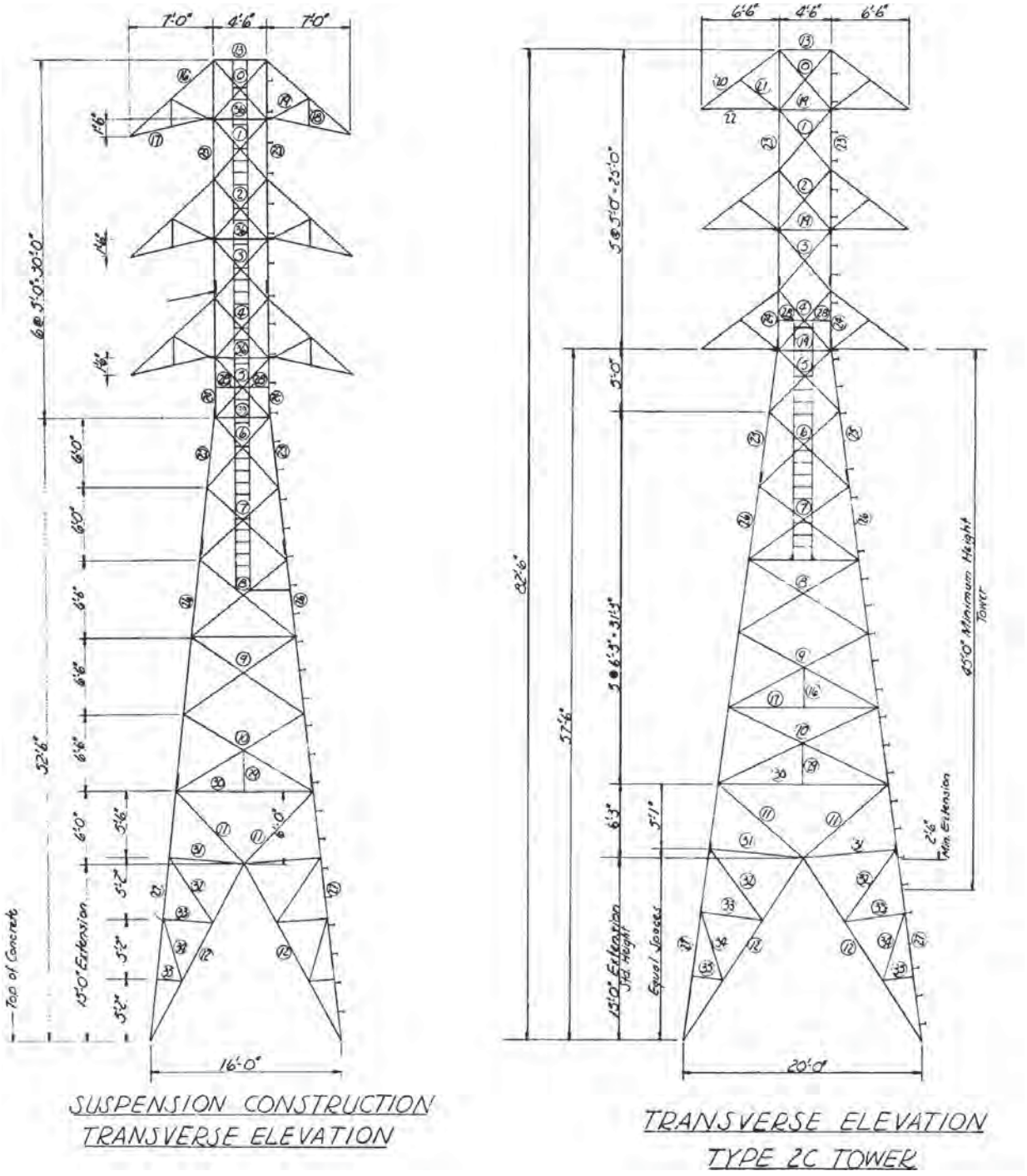
The Hollister Pole Segment would be reconstructed using a combination of both TSPs and LDS poles. The poles would consist of all steel structures with a rusted brown finish. Pole heights would range from approximately 70 feet to 95 feet ags with a base diameter ranging from approximately two to seven feet. The typical design for each type of pole is shown in **Figure 2-4**. Span lengths between the poles would range from approximately 94 to 935 feet, with the average span of approximately 295 feet.

In addition, there are four proposed temporary work line locations, or temporary shoo-fly line tie-in connections, to continue 115 kV power supply to serve the existing Hollister Substation during construction of the Hollister Tower and Hollister Pole Segments. Ten temporary wood poles, at six locations (two locations would be three-pole structures), would be located at the Lagunitas Switch shoo-fly site; three temporary wood poles would be located at the Anzar Switch site; and two new temporary poles would be constructed inside the Llagas Substation, located in Gilroy. The Sargent Switch site would require electric overhead line work and switch work only, and no temporary poles would be required.

TABLE 2-2
SUMMARY OF POLE INFORMATION

Pole Type	Approximate Location	Typical Pole Height (ags)	Number of Poles and Towers to be Removed	Number of Poles and Towers to be Installed
Double Circuit Lattice Steel Towers (LST)	Throughout the Hollister Tower Segment	82 feet	36 Double Circuit LSTs to be removed	37 Double Circuit LSTs (36 replacement and one new)
Double Circuit Poles	Throughout the Hollister Pole Segment	70 to 95 feet	NA	165 poles to be installed
Single Circuit Wood Poles	Throughout the Hollister Pole Segment	60 to 90 feet	154 to be removed and 17 to be topped	NA
Temporary wooden poles	Lagunitas Switch site Anzar Switch site Llagas Substation	60 to 90 feet	NA	15

SOURCE: PG&E, 2009b and 2010



Tower 2A/2B

Tower 2C/2D

Preliminary and subject to change based on California Public Utilities requirements, final engineering, and other factors.

SOURCE: PG&E, 2010

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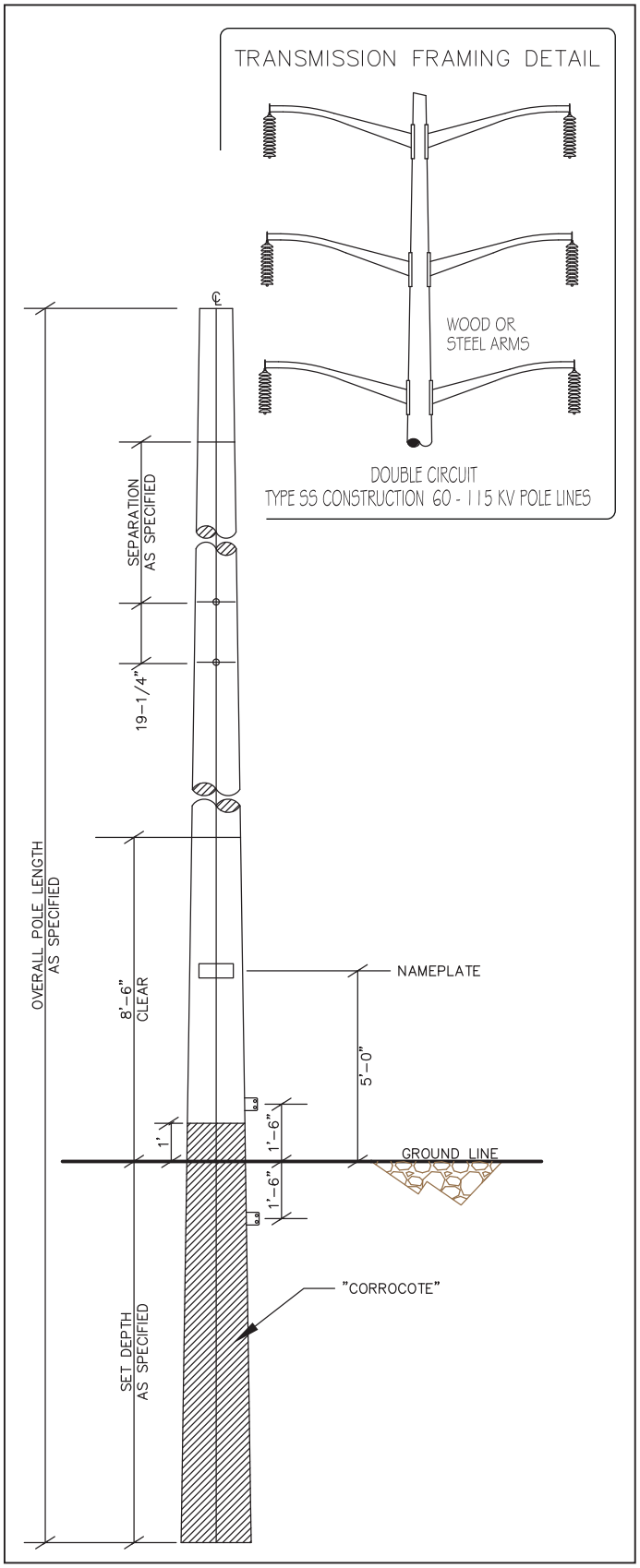
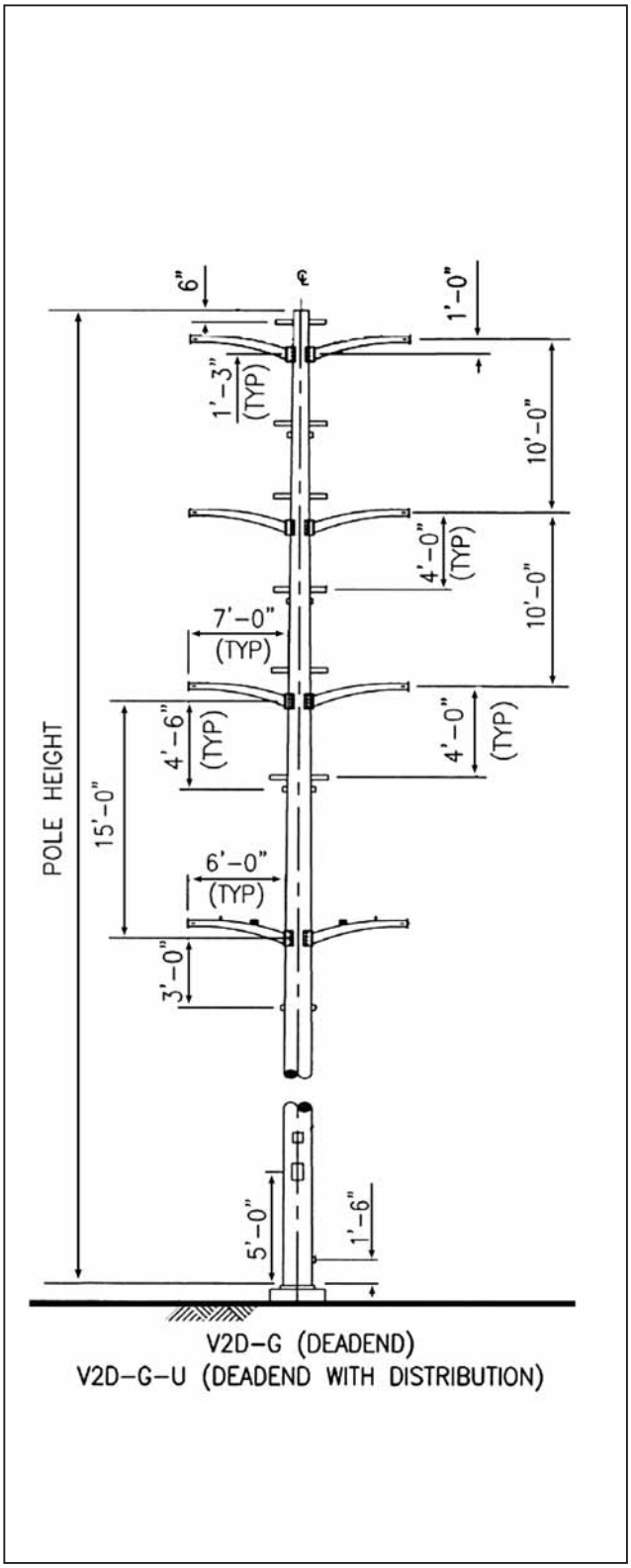
Figure 2-3
Typical Towers





Preliminary and subject to change based on California Public Utilities requirements, final engineering, and other factors.

SOURCE: PG&E, 2010

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Figure 2-4
Typical Poles

2.5.4 Conductor Modifications

Both the Hollister Tower and Hollister Pole Segments of the Proposed Project would require two 115 kV circuits, with each circuit consisting of three conductors. The conductors would be 477 kcmil SSAC and 0.846 inch in diameter. The minimum ground to conductor clearance would be 30 feet. As noted above, the average span length for the Hollister Tower and Hollister Pole Segments would be approximately 850 and 295 feet, respectively. No other infrastructure or facilities would be collocated on the Hollister Tower Segment. Approximately seven miles of one distribution circuit would be collocated on the Hollister Pole Segment. No other infrastructure would be collocated on the Hollister Pole Segment.

2.5.5 Substation Modifications

The Hollister Substation is located in San Benito County, near the City of Hollister, approximately one-quarter mile west of San Felipe Road. Modifications to the existing Hollister Substation would include the relocation of two existing poles on the substation property, updating relay settings, and changing the 115 kV bus conductors. All substation modifications would occur within the existing footprint of the substation yard.

2.6 Right-of-Way Requirements

PG&E currently owns ROW easements along the entire Proposed Project alignment, except for the approximately 1.3-mile Proposed River Crossing. Relocation of this portion of the Proposed Project would require acquisition of approximately eight acres of new PG&E ROW. In addition, the Proposed Project would require approximately 0.36 miles of new access roads. These roads would require the acquisition of approximately 0.63 acres of new ROW. For land that PG&E does not own, PG&E would negotiate easements and other property rights with private landowners for permanent or temporary use. The proposed alignment requiring new ROW would traverse agricultural fields, span the San Benito River, and cross open grazing lands in the Flint Hills.

2.7 Construction

This section describes the construction methods that would be used to complete the various components of the Proposed Project, including power line construction and replacement and substation modifications.

2.7.1 Power Line Construction and Replacement

Power line construction and replacement would require:

- staging areas/helicopter landing zones/pull and tension sites;
- access roads;
- removal of existing towers and poles and topping of existing wood poles;
- new structure installation (traditional and helicopter);
- vegetation clearance and removal;
- erosion and sediment control and pollution prevention; and
- site cleanup and waste disposal.

2.7.1.1 Staging Areas/Helicopter Landing Zones/Pull and Tension Sites

Construction of the Proposed Project would require temporary staging and storage areas to store materials and equipment during the construction process. Staging areas also would used as helicopter landing zones. Materials and equipment typically staged at these areas would include, but would not be limited to:

- Construction materials (tower steel bundles, tubular poles, anchor bolts, rebar, conductor, insulators and hardware);
- Construction vehicles and facilities (heavy equipment, light trucks, construction trailers with electrical and communications connections, and portable sanitation facilities);
- Helicopters;
- Crew vehicles;
- Material that would be removed from the existing power lines (conductor, steel, concrete, and other debris). These materials would be temporarily stored in staging areas as the material awaits salvage, recycling, or disposal; and
- Portable stations for concrete clean-up. The establishment of such stations at staging areas throughout the study project area would minimize time between the concrete pour and truck cleanout. The locations of all such stations would be approved by an environmental monitor. Each cleaning station would include dike walls and tarping to allow washed materials to be contained properly for disposal.

It is anticipated that approximately 11 staging areas (five along the Hollister Tower Segment and six along the Hollister Pole Segment), each approximately five acres in size, would be required during construction. Staging areas would be located away from general public access, and therefore not fenced. Land disturbed at the staging areas, if any, would be restored to preconstruction conditions or to the conditions agreed upon between the landowner and PG&E following the completion of construction of the Proposed Project. The site layouts would be approved by the Proposed Project's environmental monitor, and work crew activities would follow all PG&E environmental guidelines. Staging areas would be set back at least 50 feet from streams, creeks, or other water bodies to avoid impacts to riparian habitat.

In addition to staging areas, approximately 19 pull and tensions sites (hereinafter referred to as pull sites) have been identified along the Proposed Project alignment (seven along the Hollister Tower Segment and 12 along the Hollister Pole Segment). Pull sites are required to install or replace a length of conductor. Typical pull sites are approximately 100- by 300-feet in area, however the actual size may vary depending on existing terrain in the area. Typical equipment used at pull sites would include, but not be limited to, the following:

- Pullers/tensioners;
- Aerial lift trucks;
- Crew trucks; and
- Reel dollys.

Table 2-3 identifies preliminary proposed numbers, locations, and areas of staging areas and pull sites for the Hollister Tower and Hollister Pole Segments. These areas are illustrated in Figures 2-2a though 2-2i.

TABLE 2-3
PROPOSED STAGING AREAS FOR THE HOLLISTER TOWER AND POLE SEGMENTS

Site Identification	Type of Site	Approximate Area (acres)	Preliminary Proposed Location[a]
Hollister Tower Segment			
TP-1	Tower pull site	0.34	Between Towers 37/232 and 0/3A
TP-2	Tower pull site	0.31	Centered on Tower 0/04
TLZ-1	Tower landing zone and lay down area	5.02	West of Tower 0/05
TP-3	Tower pull site	0.34	South of Tower 0/06
TP-4	Tower pull site	0.34	Between Towers 0/06 and 0/07
TLZ-2	Landing zone and lay down area	5.02	Southwest of Tower 2/16
TP-5	Tower pull site	0.68	Between Towers 3/21 and 3/22
TLZ-3	Landing zone and lay down area	5.02	East of Tower 3/22
TLZ-4	Landing zone and lay down area	5.00	West of area between Towers 5/32 and 5/33
TLZ-5	Landing zone and lay down area and pull site	5.00	West of and centered on Tower 5/35
TP-6	Tower pull site	0.69	West of and centered on Tower 5/35
TP-7	Tower pull site	0.24	Centered on Towers 6/40B and 6/40A
Subtotal Hollister Tower Segment		*28.00*	
Hollister Pole Segment			
PLZ-1	Pole landing zone and lay down area	5.37	South of Pole 13/04
PP-1	Pole pull site	0.34	South of Pole 13/04
PP-2	Pole pull site	0.34	East of Pole 13/05
PLZ-2	Pole landing zone and lay down area	5.00	South of Pole 13/19
PP-3	Pole pull site	0.34	South west of Pole 14/09
PP-4	Pole pull site	0.29	East of Pole 14/09
PP-5	Pole pull site	0.26	Northwest of Pole 15/01
PP-6	Pole pull site	0.38	Northeast of Pole 15/01
PP-7	Pole pull site	0.33	West of Pole 16/01 on new alignment
PP-8	Pole pull site	0.33	East of Pole 16/01 on old alignment
PLZ-3	Pole landing zone and lay down area	4.98	Northeast of Pole 16/01 – end of Proposed River Crossing segment
PLZ-4	Pole landing zone and lay down area	4.90	North of Poles 18/16 and 18/17
PP-9	Pole pull site	0.53	Between Poles 18/17 and 19/00.
PP-10	Pole pull site	0.44	East of Poles 20/03 and 20/05
PLZ-5	Pole landing zone and lay down area	4.94	South of Poles 20/17 and 20/18
PP-11	Pole pull site	0.26	East of Pole 22/02
PP-12	Pole pull site	0.32	West of Pole 22/05
PLZ-6	Pole landing zone and lay down area	5.00	East of Hollister Substation – end of alignment
Subtotal Hollister Tower Segment		*34.35*	
Total project		**62.35**	

[a] Refer to Figures 2-2a through 2-2i for preliminary proposed locations of towers and poles.

SOURCE: PG&E, 2009b.

2.7.1.2 Access Roads

The Proposed Project would be accessed via existing roads, new permanent access roads to be constructed, and overland access routes. **Table 2-4** presents estimated miles of each type of access road required for the Proposed Project. As shown, approximately 10.11 miles of existing roads that would be used for the Proposed Project would not require any substantial upgrades prior to project construction. Approximately 1.53 miles of existing roads would be upgraded to access the Proposed Project. Upgrades would occur within the existing access road corridor and would include minor grading and vegetation removal. Approximately 0.25 miles of new permanent access roads would be constructed as part of the Proposed Project. Construction of such roads would include clearing of all vegetation within the road corridor using a dozer or scraper; no placement of gravel would occur. In addition, overland travel would occur on approximately 5.58 miles of gently sloping grassy areas and rangeland without the preparation of a road during project construction.

TABLE 2-4
ACCESS ROADS

Type of Access	Width	Miles	Temporary Impact (acres)	Permanent Impact (acres)
Existing dirt and paved roads	~15 feet total (~30 feet at the corners)	10.11	--	--
Existing roads to be improved	~15 feet total (~30 feet at the corners)	1.53	--	--
New permanent road	~15 feet total (~30 feet at the corners)	0.25	--	0.43
Overland travel	-	5.58	7.71	--
Total		**17.47**	**7.71**	**0.43**

NOTE: Overland travel miles were increased by 0.19 mile to reflect overland travel that would be associated with the southern shoo-fly connection, which was not described in the PEA.

SOURCE: PG&E, 2010.

Both private and public roads would be used to access the Proposed Project. Along the Hollister Tower Segment, access via public roads is limited. One access point to the Hollister Tower Segment would be located at the intersection of the power line and SR 156, on the northerly portion of the segment. Other access points would include private dirt roads on large ranch properties adjacent to San Juan Grade Road.

Typical access roads would have a minimum drivable width of approximately 15 feet, except at corners where roads would need to have a drivable width of approximately 30 feet to accommodate necessary turning radii.

Approximately ten road crossings would be required over linear water features. These crossings would be protected with a steel plate, temporary bridge, or construction mats. One new culvert would be installed near Pole 18/14 to accommodate year-round access on an overland route. All

work in Corps jurisdictional drainages would be conducted during the dry season (i.e., May 1 through October 31). Any excavation necessary for installation of the culvert or placement of gravel would be conducted from the bank of the drainage using an excavator or backhoe. Fencing would be installed to delineate the work area and no work would occur outside of the designated work area. A biological monitor would be onsite during all work within the drainage.

Existing and proposed access roads are shown in Figures 2-2a through 2-2i.

2.7.1.3 Tower, Pole and Top Removal

Proposed Project construction would include removal of 36 existing LSTs, 154 existing wood poles, and topping of 17 existing wood poles.

Tower Removal

The Hollister Tower Segment would include dismantling and removal of 36 existing LSTs. A crane or helicopter would be used to take down the existing towers and remove them from the project area. Where removal could otherwise cause extensive environmental impacts, towers would be partially dismantled with bases left behind. In all other cases, tops of exposed foundations would be broken up and removed. Old foundation holes would be filled with existing soil excavated from new tower foundations.

Pole Removal

The Hollister Pole Segment would include removal of 154 existing wood poles. Wood poles would be removed by a line crew. The line crew would access each pole site with a line truck and trailer or a boom truck, which consists of a small crane mounted on a flatbed truck. The wood poles would be loosened from the ground with a hydraulic jack, removed from their holes using a line truck or boom truck, and transported from the site on the trailer or boom truck. If the hole is not reused, a backhoe and dump truck would backfill the hole with native soil from Proposed Project construction activities (e.g., pole excavation). If required, the surface would be seeded with an appropriate revegetation seed mix.

Top Removal

The Hollister Pole Segment would include topping of 17 existing wood poles located within the San Benito River floodplain and adjacent agricultural field. Topping involves removal of the power portion of an existing pole while retaining the height necessary to carry existing distribution lines. The wood poles that would be topped as part of the Proposed Project would not be removed because they would continue to carry the lower distribution line that provides service to local costumers.

Poles to be topped would be accessed by a pole crew on foot and, where feasible, by a line truck and trailer or a boom truck. The walk-in crew would climb the pole and cut off the top. The top would then be removed, either by hand or by helicopter. If use of a line truck or book truck is feasible, the truck would be used to hold the top of the pole in place. A chainsaw would be used to cut the pole, and the top section would be removed and disposed of in an appropriate landfill.

2.7.1.4 New Structure Installation

Tower Installation

The Hollister Tower Segment would include installation of 37 new LSTs. New tower foundation footings would be augured in place; footing depths would range between 12 to 15 feet deep. New rebar cages would be placed in the newly-drilled hole, and concrete would be poured at foundation locations. The new towers would then be erected and bolted together.

There would be seven pull sites approximately 300- feet by 100-feet in area that would require preparation. Pull sites would be located between Towers 37/232 and 0/3A, centered on Tower 0/04, south of Tower 0/06, between Towers 0/06 and 0/07, between Towers 3/21 and 3/22, west of and centered on Tower 5/35, and centered on Towers 6/40B and 6/40A. Temporary crane pads would need to be built if the terrain would not allow for safe operation of a crane. The size of the pad would vary based on site-specific conditions.

Pole Installation

While the Hollister Tower Segment and the Hollister Pole Segment are being constructed, the existing Watsonville–Salinas 60 kV power line, which parallels the Hollister Tower Segment northerly to the Hollister Pole Segment, would temporarily be upgraded to 115 kV and serve as the 115 kV feed to the Hollister Substation. Consistent with PG&E's current standards for 60 kV lines, the Watsonville-Salinas 60 kV line is configured with insulators that can support 115 kV. To connect the Watsonville–Salinas 60 kV power line to the 115 kV system, temporary shoo-fly line tie-in connections would be installed that would consist of ten wood poles and conductor at the southern end of the Hollister Tower Segment and three wood poles and conductor at the northern end of the Hollister Tower Segment, as well as two wood poles at the existing Llagas Substation in Gilroy (see Figures 2-2a and 2-2e).

The Hollister Pole Segment would include installation of 135 new LDS poles and 30 new TSPs. Specific procedures for installing each pole type are described below.

Pole locations would be sited to maximize spans and avoid environmentally sensitive areas. At each pole location, the work area would be flagged by PG&E and the environmental monitor prior to construction. For pole installations near wetlands, riparian habitat, or special-status plant or wildlife habitat, a biological monitor (a trained professional biologist) would approve the type and placement of environmental protections and would monitor the area during construction activities.

An approximately 50-foot radius around each pole would be required for a work area. Some work areas may require removal of vegetation and installation of silt fencing (e.g., during the wet season, if required). Temporary work areas around poles generally would not require grading or surfacing.

There would be 12 pull sites, each approximately 300 feet by 100 feet, which would require preparation. Pull sites would be located south of Pole 13/04, east of Pole 13/05, southwest of Pole 14/09, east of Pole 14/09, northwest of Pole 15/01, northeast of Pole 15/01, west of pole

16/01, east of Pole 16/01, between Poles 18/17 and 19/00, east of Poles 20/03 and 20/05, east of Pole 22/02, and west of Pole 22/05.

Drilling and excavation of holes for all pole types would use a hole auger, backhoe, dump truck, and crew truck, all of which would access pole locations via existing or proposed roads where available and over land routes where roads do not exist. A hole auger consists of an auger mounted on a heavy truck chassis or piece of track equipment that would be used to drill holes.

Aerial lift trucks would be used to install, transfer, and remove conductors. Crew trucks would be used to transport the crew, their hand tools, and other materials to and from pole locations. Crew trucks would be used to minimize the number of vehicles accessing each site and to reduce vehicle-related impacts.

LDS and Wood Shoo-Fly Pole Installation

LDS poles would be used to support straight spans and wood poles for the shoo-fly connections would be used to temporarily upgrade the Watsonville-Salinas line during construction of the Project. These poles would be set directly into the soil to a depth of approximately seven to 12 feet below grade. Installation of LDS and wood shoo-fly poles would involve the following steps: staking the pole location, flagging the work area, excavating the hole, installing the pole using a line truck, backfilling, transferring wire and equipment, removing the old conductor and stringing the new conductor, removing the old pole, and backfilling.

TSP Installation

All angle poles would be TSPs, which eliminates the need for wire down guys. Installation of TSPs would involve the following steps: staking the pole location; flagging the work area; installing silt fencing (if required); preparing the crane pad (if required); excavating the hole; installing forms, rebar, and anchor bolts; pouring concrete; removing forms; placing gravel around and grooming the base area; installing the new pole; removing the old conductor and stringing the new conductor; removing the old wood pole; and spreading any excess soil onsite and trucking other construction materials offsite for disposal.

All TSPs would have concrete pier foundations that are approximately five to seven feet in diameter. TSPs would be set approximately 15 to 30 feet deep. A boom truck would be used to haul foundation forms, anchor bolts, rebar, and pole structures to the TSP locations. The boom truck would also be used to place foundation forms, anchor bolts, and rebar in place prior to pouring of concrete for the foundation and to remove the forms following completion of the foundation.

A concrete truck consisting of a four-wheel drive mixer capable of delivering eight yards of concrete would be used to deliver and pour concrete for the TSP foundations. Concrete trucks would not be washed out at pole locations, but rather would be rinsed using the portable stations established for concrete clean-up at staging areas throughout the project area. A backhoe would be used to place gravel around the TSP foundation after formwork has been removed and to groom the area immediately surrounding all pole installations. A crane would be used to place TSPs on the foundations.

PG&E would temporarily install approximately two wood poles (shoo-fly tie-in connections) at each angle of the existing Hollister Pole Segment to accommodate replacement of the existing wood pole with a new TSP.

Helicopter Installation

Helicopters would be used to install towers and poles in locations where overland access is not possible or access is difficult due to topography and vegetation. Towers 3/18 and 4/25 are expected to be installed entirely by helicopter. An excavator is expected to drive to Towers 3/17, 3/19, 3/20, and 4/24 to install the foundations; and the towers are expected to be installed by helicopter. Helicopters would be used to remove and deliver tower sections, materials, equipment, concrete, and workers to these tower locations and to other locations where conventional access is difficult or as otherwise warranted. Preliminary locations for temporary helicopter landing zones (i.e., staging areas) are shown in Figures 2-2a through 2-2i. An area of approximately 200 by 200 feet would be required for helicopter clearance. Helicopters of varying size would use the temporary landing zones to pick up and drop off crew and materials, and to stage and refuel. These areas would be sprayed with water as needed for dust control.

As required by the Federal Aviation Administration (FAA), PG&E would require the helicopter vendor to develop and implement a Helicopter Lift Plan.

Guard Structures

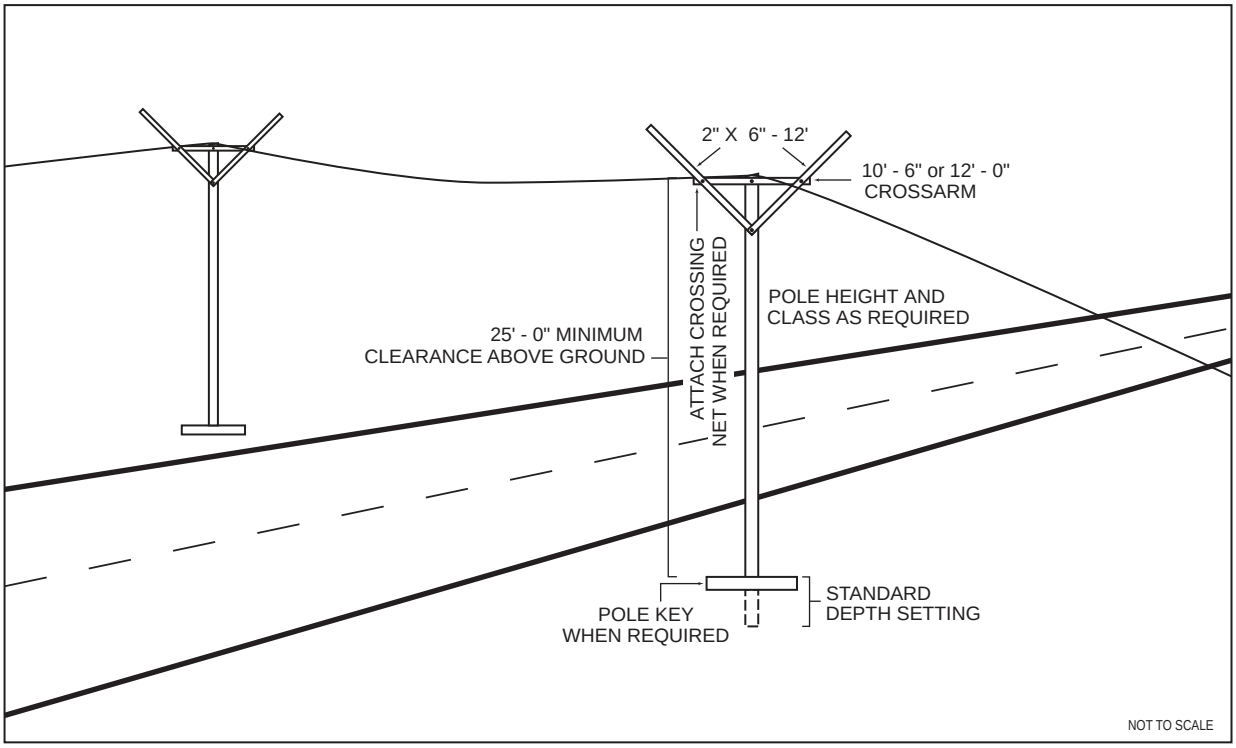
All of the old conductors would be removed under the Proposed Project, and new conductors would be installed. Prior to stringing conductors, temporary clearance structures would be installed at road crossings and other locations where the new conductors could otherwise come into contact with electrical or communication facilities, or vehicular traffic during installation. The temporary structures would be installed across SR 156, San Juan Highway, San Justo Road, and the Union Pacific Railroad crossing.

Temporary structures would consist of a wood pole with a frame at the top that resembles a “Y” or “H”. See **Figure 2-5** for examples of temporary clearance structures that would be installed under the Proposed Project. These structures would be placed on each side of the road or other location being crossed. Foundations and grading would not be required. Methods for installation and removal of clearance structures would be similar to those described for LDS poles; however, the wood poles would be installed approximately six to ten feet deep. Netting would be installed between the two Y-frame or H-frame structures as needed to avoid contact between the new conductor and an existing facility.

Where necessary, traffic control would be provided during installation and removal of these temporary clearance structures, and as specified in Caltrans, San Benito County and Monterey County encroachment permits.

Replacement of Existing Conductors

To replace an existing conductor with a new conductor, the existing conductor would first be detached from its support structure and temporarily lifted. Rollers would then be installed at the



SOURCE: PG&E, 2010

Hollister 115kV Power Line Reconductoring Project . 207584.03

Figure 2-5
Examples of Temporary Clearance Structures

conductor's attachment point, and the conductor would be placed onto the rollers. Installation of rollers and detachment of the existing conductor would require aerial lift of the conductors by either a boom truck or a helicopter.

Once rollers are in place for the entire section of conductor being replaced, the existing conductor would be pulled out of place. A pulling (sock) line would be attached to the existing conductor, which would then be used to pull the new conductor into place. Removal of the existing conductor and installation of the new conductor would require establishment of pull and tension sites. Equipment at the pull sites would pull the conductor onto a reel, where it would be collected for salvage. Equipment at the tension site would feed new conductor along the rollers previously installed at each structure while maintaining tension in the line so that it would not sag to the ground. Once the new conductor is in place, the rollers would be removed, and the new conductor would be attached to the structures.

Installation of New Conductors

Prior to the installation of a new conductor, rollers would be installed at vacant positions on new structures using one helicopter lift. The helicopter would then be used to install a pulling (sock) line in the rollers. Once installed, the sock line would be used to pull the new conductor into place. When the conductor has been pulled through the rollers, an aerial lift would typically be used to remove the rollers and attach the conductor to the structures.

2.7.1.5 Vegetation Clearance and Tree Removal

Approximately 136 trees would be removed along the Hollister Tower Segment. However, the majority of these trees have a diameter at breast height (dbh) of 12 inches or less. Approximately 85 to 90 percent of these trees are coastal live oaks with the remaining trees consisting of valley oak, oak, bay and live oak. Approximately 30 trees to be removed have a dbh of 12 to 24 inches while six trees have a dbh of 24 to 35 inches.

For the Hollister Pole Segment approximately five trees would be removed including three coastal live oaks, one black walnut and one fruit tree. Aside from trimming, no other tree work is anticipated along the Hollister Pole Segment. Trees along Buena Vista Road are already highly maintained by distribution inspections. Orchards that parallel the power line between Poles 20/08 and 21/17 are set back from the existing ROW and are trimmed.

PG&E vegetation management policy prohibits removal of trees from riparian areas without acquiring appropriate permits. If trimming is required within a riparian area, the trim is not to exceed 10 percent of total tree.

2.7.1.6 Land Disturbance

A summary of land that would be temporarily and permanently disturbed during construction of the Proposed Project is provided in **Table 2-5**. An estimated 85.28 acres would be temporarily disturbed during construction and approximately 0.48 acres would be permanently disturbed.

TABLE 2-5
APPROXIMATE TEMPORARY AND PERMANENT DISTURBANCE

Project Activity	Approximate Temporary Disturbance[a] (acres)	Approximate Permanent Disturbance[b] (acres)
Hollister Tower Segment (37 towers)		
Landing zones, pull sites, etc.	28.00	
Roads	5.97	0.43
Tower work areas	2.12	0.04
Tower Segment	**36.09**	**0.47**
Hollister Pole Segment (165 poles)		
Landing zones, pull sites, etc.	34.35	
Roads	7.71	
Pole work areas	7.13	0.01
Pole Segment Total	**49.19**	**0.01**
Project total	**85.28**	**0.48**

NOTE: Estimated disturbance acreages for removing and installing towers and poles are based on the following assumptions: temporary disturbance for the Hollister Tower Segment is 2,500 square feet per tower, and permanent disturbance is 12.5 square feet per tower, except for the four towers that are in oak woodland or coastal scrub vegetation communities, where the permanent footprint is 400 sq. feet per tower. Temporary disturbance for the Hollister Pole Segment is 1,600 square feet, and permanent disturbance is 30 square feet per pole. Because the majority of towers and poles already exist and are being replaced in kind, the only new permanent disturbance is limited to the Proposed River Crossing and four towers to be installed in oak woodland or coastal scrub vegetation communities in the Tower Segment.

[a] Temporary disturbance represents construction activities associated with installation and removal of towers and poles.
[b] Permanent disturbance represents the footprint of the footings of each tower; access remains under each tower (e.g., for cattle grazing), including the four towers that are in oak woodland or coastal scrub vegetation communities.

SOURCE: PG&E, 2010.

2.7.1.7 Erosion and Sediment Control and Pollution Prevention during Construction

PG&E would prepare a Storm Water Pollution Prevention Plan (SWPPP) for the entire project, and workers would receive written and tailboard instructions on the plan. Implementation of the SWPPP would protect surface waters by minimizing construction-related erosion and the entry of related sediments into nearby waterways. As part of the SWPPP, PG&E would develop and implement a Spill Prevention Control and Countermeasure Plan (SPCCP). The SPCCP would be completed and included in the SWPPP before any construction activities begin. PG&E would routinely inspect the construction areas to verify that the control measures specified in the SWPPP are properly implemented and maintained.

2.7.1.8 Cleanup and Post-Construction Restoration

Crews would be required to maintain clean work areas as they proceed along the line and would be instructed to leave no debris whatsoever in the project area outside designated debris collection locations. PG&E would develop a set of post-construction restoration measures in a Habitat Mitigation Plan (HMP), to address project-specific restoration plans and species-specific mitigation plans. PG&E would reseed all areas where major ground disturbing activities occur such as pull and tension site, helicopter landing zone areas, and staging areas. The particular

components of a native species reseeding mix, along with seeding methods, would be included in the HMP to address both (1) erosion control after ground disturbing activities as well as (2) habitat restoration for temporary impacts to listed species in grassland areas (to benefit San Joaquin Kit Foxes, California Tiger Salamanders, and California Red-legged Frogs). Reseeding of major areas of ground disturbance would be implemented under appropriate conditions (for example in the fall following construction).

After restoration activities have occurred, these restored areas would be compared with reference areas to ensure that restoration was successful. Performance criteria would include target cover estimates (comparable to reference sites) as well as an invasive weed component (to ensure that invasive plants are not established beyond existing thresholds). All reseeded areas would be monitored following restoration until performance criteria are met.

Project-generated refuse, spoil, and trash would be kept onsite with compliant containers and disposal processes or transported to the nearest service center. Storage of oil and treated wood onsite would require site secondary containment, managed storage, and labeling with manifested disposal/recycling processing. Insulators would be stored separately and recovered. All steel, wire, and hardware material would be returned to the appropriate PG&E yard for sorting. Materials that are not re-usable would be separated by material type (e.g., copper and steel) and sent to a recycler.

For other areas, upon completion of the project, the areas could be left as specified in the applicable lease agreements with property owners (i.e., for nature to take its course). The site layouts would be approved by the Proposed Project's environmental monitor, and work crew activities would follow all PG&E environmental guidelines.

2.7.2 Substation Modifications and Construction

Construction activities at Hollister Substation would occur entirely on PG&E property. Materials and equipment would be stored on PG&E property. Each substation work crew would use a crew truck that would be located within the existing substation yard.

2.7.3 Construction Workforce and Equipment

It is estimated that 56 craft laborers per day would be required to construct the Proposed Project at its peak. The estimated number of personnel required for construction of the Proposed Project is summarized in **Table 2-6**.

Construction would be performed by either PG&E construction crews or contractors, depending on the availability of PG&E construction personnel at the time of construction. Contractor construction personnel would likely be from the local area or adjacent areas and would be managed by PG&E construction management personnel. **Table 2-7** summarizes crews excepted to be required during project construction and their various roles.

Table 2-8 shows equipment expected to be used during Proposed Project construction. **Table 2-9** provides preliminary estimates of equipment usage during each phase of construction.

TABLE 2-6
PRELIMINARY ESTIMATES OF CONSTRUCTION WORKERS

Construction Phase	Estimated Maximum Daily Workers
Hollister Tower Segment	23[a]
Establish staging area Road construction	5
Tower installation Power line reconductoring	23
Hollister Pole Segment	23[a]
Establish staging area Road construction	5
Pole installation Power line reconductoring	23
Hollister Substation construction	10

[a] Assumes that establishment of staging areas and road construction would occur prior to tower and/or pole installation and reconductoring, therefore work crews would not overlap.

SOURCE: PG&E, 2009b.

TABLE 2-7
CREWS EXPECTED TO BE REQUIRED DURING PROJECT CONSTRUCTION

Crew	Role
Road	The road crew would be a contract crew to PG&E responsible for development of the access roads, crane pads, and gates[a]. In addition, the road crew would perform post-construction road cleanup activities.
Site preparation	The site preparation crew would be a contract crew to PG&E responsible for development of the landing zones and staging areas, pull and tension sites, compliance with the Stormwater Pollution Prevention Plan, and other best management practices (BMPs). In addition, the site preparation crew would perform post-construction site cleanup activities.
Light-duty helicopter	The light-duty helicopter crew would be a contract crew to PG&E responsible for obtaining Federal Aviation Administration (FAA) permits, the helicopter (including maintenance and refueling), transporting work crews and materials to pole and tower sites, and removal and installation of the sock line, as needed.
Heavy-duty helicopter	The heavy-duty helicopter crew would be a contract crew to PG&E responsible for procuring FAA permits and the helicopter (including its maintenance and refueling), transporting new poles and towers to pole and tower sites, and installing poles and towers using a heavy-duty helicoptor, as needed.
Tower	The tower crew (either a PG&E or contract crew) would be responsible for the excavation contractor, the heavy-duty helicopter contractor, and the light-duty helicopter contractor. This crew would also partner with the line crew in development of pole and tower-related staging areas and installation of foundations, tubular steel poles, and towers.
Line	The line crew (either a PG&E or contract crew) would be responsible for managing a light-duty helicopter crew and would partner with the tower crew in development of tower staging areas, development of pole- and line-related staging areas, establishment of pull and tension sites, installation of rollers and crossbeams, contract removal/installation of the sock line, installation of light-duty steel poles and temporary wood poles, and installation of new conductor.
Substation	The substation crew (either a PG&E or contract crew) would be responsible for all substation site activity.

TABLE 2-7 (Continued)
CREWS EXPECTED TO BE REQUIRED DURING PROJECT CONSTRUCTION

Crew	Role
Environmental and biological monitors	The environmental monitor would be a contractor to PG&E responsible for inspection of all project construction activity, including inspection of work sites prior to the start of construction activity, monitoring of activities and cleanup, preparing and submitting California Public Utilities Commission (CPUC) compliance reports, and otherwise ensuring compliance with the CPUC Permit to Construct. If warranted, a qualified biological monitor would be utilized in areas with sensitive biological resources.

[a] 16-foot wide "Powder River" gates would be installed.

SOURCE: PG&E, 2009b.

TABLE 2-8
EQUIPMENT EXPECTED TO BE USED DURING PROJECT CONSTRUCTION

Type of Equipment	Use
Aerial lifts	Remove old conductor and install new conductors
Backhoe	Excavate foundations, spoil removal, backfill
Boom truck	Erect structures
Low Drill	Erect structures
Concrete mixer truck	Haul concrete
Crane	Erect structures
Crew-cab truck/pick-ups	Transport personnel, tools and materials
Dump truck	Haul Materials
Equipment/tool vans	Tool storage and transportation
Grooming/grading equipment: Dozer Water truck Grader Rock transport Roller	Road construction and crane pads: Move/compact soils Compact soils and control dust Properly pitch road for run-off Deliver road base for access roads, staging areas, and pull sites Compact road and surfaces
Helicopters (light and heavy duty)	Erect poles and towers, install sock line, haul materials, equipment, and people
Hole auger	Excavate holes
Hydraulic jack	Remove wood poles
Line truck and trailer	Haul conductor, poles, equipment, materials, and people, and to install pole/ conductor
Materials storage units	Store material/tools
Mobile offices	Supervision and clerical office
Puller	Install conductor
Reel dolly	Install and move conductor
Tensioner	Install conductor

SOURCE: PG&E, 2009b.

TABLE 2-9
PRELIMINARY ESTIMATES OF PROJECT CONSTRUCTION EQUIPMENT AND USAGE

Construction Phase	Equipment Type	Approximate Hours/Day	Approximate Days/Year
Hollister Tower Segment			
Establish staging area Road construction	Light truck, pick-up truck, water truck	10	N/A
Tower installation Power line reconductoring	Grader/cat, helicopters, line trucks, pull rigs, pick-up trucks, tension device, fuel trucks, water trucks, line dolly, cranes, rewind trailers, bucket truck, cement mixer, hole digger, light truck, flat bed truck, fork lift, backhoe, dump truck, vibrating compactor.	10	180
Hollister Pole Segment			
Establish staging area Road construction	Light truck, pick-up truck, water truck	10	N/A
Tower installation Power line reconductoring	Grader/cat, helicopters, line trucks, pull rigs, pick-up trucks, tension device, fuel trucks, water trucks, line dolly, cranes, rewind trailers, bucket truck, cement mixer, hole digger, light truck, flat bed truck, fork lift, backhoe, dump truck, vibrating compactor	10	180
Hollister Substation construction	Bucket truck, pick-up truck, line truck	10	20

SOURCE: PG&E, 2009b.

Construction efforts would occur in accordance with accepted construction industry standards. Construction activities generally would be scheduled during daylight hours (6:30 am to 5:00 pm). If different hours or days are necessary, PG&E would notify affected residents and the local planning department.

2.7.4 Construction Schedule

Table 2-10 summarizes the length of time anticipated to construct each phase of the Proposed Project. The construction period is expected to begin in March 2011 and take approximately 15 months to complete the Hollister Pole Segment and the Hollister Tower Segment. Construction at the Hollister Substation is expected to take approximately one month. Because the critical electrical load carried by these power lines, construction may be limited to cooler weather when electrical demand is lower, thus limiting the construction schedule.

2.8 Operation and Maintenance

2.8.1 General Systems Monitoring and Control

Monitoring and control would not change as a result of the Proposed Project. Substation and power line monitoring and control devices would be installed per PG&E design standards and connected to the existing telecommunication and protection schemes at the Hollister Substation. As is currently the case, the power systems at this substation would be monitored 24 hours a day, seven days a week by system operators at the Moss Landing Substation.

TABLE 2-10
PROPOSED CONSTRUCTION TIMETABLE

Proposed Project Component	Length	Duration (months)	Approximate Progression Rate	Estimated Schedule
Hollister Tower Segment	7 miles			March 2011 – June 2012[a]
Establish staging areas Road construction		1 week per area	NA	
Tower Installation Power line reconductoring		14	616 feet per week (assumes 60 weeks)	
Hollister Pole Segment	9 miles			March 2011 – June 2012[a]
Establish staging areas Road construction		1 week per area	NA	
Tower Installation Power line reconductoring		14	792 feet per week (assumes 60 weeks)	
Hollister Substation Construction	NA	1	NA	February 2012 – May 2012

[a] This assumes that construction would occur continuously and would not be affected by outage constraints. Actual construction schedule may be limited by such constraints.

SOURCE: PG&E, 2010.

2.8.2 Facility Inspection

Facility inspections would not change as a result of the Proposed Project. The regular inspection of power lines, instrumentation, and control and support systems is critical for safe, efficient, and reliable operation of electric power line facilities. Early identification of items needing maintenance, repair, or replacement would ensure continued safe operation of the reconstructed facilities and continued reliable service.

The current process involves three types of inspections: ground inspections, aerial inspections, and climbing if ground inspections indicate a need. The frequency of inspection varies, depending on factors such as the age of the system, structure type, vegetation conditions, and other factors. For the Proposed Project power lines, it is generally assumed that PG&E "maintenance troublemen" would inspect all structures from the ground annually for corrosion, misalignment, deterioration, and foundation failures. In addition, ground inspection would occur on selected lines to check the condition of hardware, insulators, and conductors. Inspection would include checking conductors and fixtures for corrosion, breaks, broken insulators, and failing splices.

PG&E would continue (without change) its current practice of conducting inspections by driving to the poles in a pick-up truck where feasible. Maintenance troublemen would use an all-terrain vehicle or go by foot where needed to minimize surface disturbance and where access otherwise is difficult. Aerial inspection using helicopters would be conducted if needed. Any specific access requirements that may result from right-of-way negotiations with property owners would be

documented and provided to the maintenance troublemen, with instructions to comply with all such requirements.

2.8.3 Maintenance Procedures

Existing maintenance procedures would not change as a result of the Proposed Project. Maintenance of the power line is generally conducted on an as-needed basis, when the troublemen discover something needing repair or in response to an emergency. A benefit of using mostly lattice steel towers, TSPs, and LDS poles for this project is that they generally require less maintenance than wood poles.

As is the current practice, PG&E's vegetation management inspector would inspect and document vegetation conditions annually. Where needed, vegetation inspections may be conducted more frequently. To maintain appropriate clearance under the power line, vegetation removal would be performed on an annual basis or as needed.

Vegetation clearance, which is part of ongoing annual maintenance along the existing power lines, would not change after project construction. A Consulting Utility Forester performs annual inspections of the project facilities and determines where tree trimming work is required. Generally the inspection takes approximately two weeks to complete, and tree trimming is completed within 60 to 90 days of inspection. Weather can affect the time between inspection and the completion of clearing in the area along the Hollister Tower Segment. This portion of the alignment cannot be worked on during rains, and roads must be allowed drying time after a rain event. Vegetation clearing along the Hollister Pole Segment is not similarly restricted by weather because of the existence of all season roads. Barring rain, the average time to complete tree trimming is approximately 30 days.

Equipment modifications at the Hollister Substation are not expected to change existing maintenance procedures. Maintenance on the equipment is performed as needed. Because the power line and substation modifications are not expected to require additional employees for operation and maintenance, the project would not generate additional traffic.

2.9 Applicant Proposed Measures

In the PEA, PG&E identified a number of applicant proposed measures (APMs) to avoid or reduce potential impacts associated with the Proposed Project. All APMs are considered part of the Proposed Project for the purpose of this MND. The Project Description, upon adoption of the Final MND, becomes part of the Mitigation Monitoring, Reporting and Compliance Program; therefore, implementation of these measures would be monitored by the CPUC.

The PEA identified APMs for the following resource areas: aesthetics; agricultural resources; air quality; biological resources; cultural resources; geology, soils, and seismicity; hazards and hazardous materials; hydrology and water quality; noise; public services; recreation; and public utilities. Each APM is listed below.

Aesthetics

APM AES-1: Limit construction hours to daylight hours as feasible. Construction activities that are visible to the public and scheduled to occur after 6:00 p.m. or on weekends should not continue past daylight hours (which vary according to season) unless required because of project safety concerns or clearance requirements. This will reduce the amount of construction activities visible to viewer groups because most construction activities will occur during business hours (when most viewer groups are likely at work), and daylight construction will eliminate the need to introduce high-wattage lighting sources to be able to operate in the dark.

Agricultural Resources

APM AG-1: Compensate for reduced agricultural production and loss of use. PG&E will offer appropriate compensation for land held in private ownership as part of the acquisition of temporary construction easements or permanent utility easements. PG&E will compensate property owners for removal of any structures, crops, or agriculture-related improvements required to construct the project. PG&E will negotiate easements with private landowners for the temporary or permanent use of agricultural areas. Upon completion of the project, the areas will be left as specified in the individual agreements. In addition, PG&E will prepare a SWPPP (see APM HYDRO 1 [Prepare and implement a Storm Water Pollution Prevention Plan] in Section 4.8, "Hydrology") to ensure that areas affected by construction are restored to pre-construction conditions.

Air Quality

APM AIR-1: Implement Monterey Bay Unified Air Pollution Control District (MBUAPCD) mitigation measures for construction fugitive dust. PG&E will implement all applicable and feasible fugitive dust control measures required by MBUAPCD. This requirement will be incorporated into the construction contract. These measures include:

- Water all active construction sites at least twice daily. Frequency of watering should be based on the type of operation, soil, and wind exposure.
- Prohibit all grading activities during periods of high wind (over 15 mph).
- Haul trucks will maintain at least 2'0" of freeboard.
- On-site vehicles will be limited to a speed on unpaved roads that minimizes dust emissions.
- Cover all trucks hauling dirt, sand, or loose materials.
- Cover inactive storage piles.
- Install wheel washers at the entrance to construction sites for all exiting trucks.
- Sweep streets if visible soil material is carried out from the construction site.
- Post a publicly visible sign with the telephone number and person to contact regarding dust complaints. This person will respond and take corrective action within

48 hours. The phone number of the MBUAPCD also will be visible to ensure compliance with Rule 402 (Nuisance).

- Limit the area under construction at any one time as feasible.

APM AIR-2: Implement BMPs to reduce construction tailpipe emissions. PG&E will implement all applicable and feasible measures to reduce tailpipe emissions from diesel-powered construction equipment. This requirement will be incorporated into the construction contract. These measures include:

- Maximize use of diesel construction equipment meeting CARB's 1996 or newer certification standard for off-road heavy-duty diesel engines.

- Use emission control devices at least as effective as the original factory-installed equipment.

- Maintain all diesel-powered equipment in a manner to minimize visible soot emissions.

- Locate stationary diesel-powered equipment and haul truck staging areas as far as practicable from sensitive receptors.

- Minimize unnecessary idling time through application of a "common sense" approach to vehicle use, so that idling is reduced as far as possible below the maximum of 5 consecutive minutes required by California law—if a vehicle is not required immediately or continuously for construction activities, its engines will be shut off. Construction foremen will include briefings to crews on vehicle use as part of pre-construction conferences. Those briefings will include discussion of a "common sense" approach to vehicle use.

- Use ground equipment in place of helicopters where practicable.

APM AIR-3: Minimize greenhouse gas emissions during construction. PG&E or its contractors will implement the following measures during construction to reduce greenhouse gas emissions:

- Encourage construction workers carpooling to the job site to the extent feasible.

- Encourage recycling of construction waste where feasible.

- Minimize welding and cutting by using compression of mechanical applications where practical and within standards.

- Encourage use of natural gas-powered vehicles for passenger cars and light-duty trucks where feasible and available.

- Minimize construction equipment exhaust by using low-emission or electric construction equipment where feasible.

Biological Resources

APM BIO-1: Conduct an environmental training and monitoring program for construction crews before beginning construction. An Environmental Training and Monitoring Program for construction crews will be conducted before beginning construction and will be ongoing during construction activities for new crew members. The education program will include information about the federal and state Endangered Species Acts, the consequences for noncompliance with environmental laws, identification of special-status plant and wildlife species and wetland habitats, and review of mitigation measures. (Also see APM HYDRO-2 [Develop and implement a Spill Prevention Control and Countermeasure Plan], which requires communicating environmental concerns and appropriate work practices, including spill prevention, emergency response measures, and applicable BMPs, to all construction personnel in an Environmental Training and Monitoring Program.)

APM BIO-2: Restrict vehicles to established roadways and approved access routes and staging areas.

APM BIO-3: Retain an environmental monitor onsite during construction activities near sensitive habitat. An environmental monitor will be onsite during any construction activity near sensitive habitat to ensure implementation of, and compliance with, APMs. The monitor will have authority to stop construction activities and develop alternative work practices, in consultation with construction personnel and resources agencies, if construction activities are likely to impact special-status species or other sensitive biological resources.

APM BIO-4: Set back staging areas from waterbodies to avoid impacts on riparian habitat. Staging areas will be set back at least 50 feet from streams, creeks, or other water bodies to avoid impacts on riparian habitat.

APM BIO-5: Contact the environmental monitor if special-status species are located. If construction personnel observe special-status species within the work area prior to, or during construction activities, construction personnel will contact the environmental monitor. The monitor will notify PG&E contacts via an established communication protocol that will be developed prior to the start of construction. The USFWS Biological Opinion will state agency notification protocols should a federally-listed species be observed within the work area.

APM BIO-6: Complete photodocumentation of sensitive habitat conditions before beginning and immediately after completing construction activities. Photodocumentation of preconstruction habitat conditions will occur at all construction locations within sensitive habitats prior to the start of construction and immediately after completing construction activities.

APM BIO-7: Prohibit trash, firearms, and pets in the project area during construction. Additional APMs (identified below) to avoid and minimize specific potential impacts to biological resources will be implemented as necessary to reduce potentially significant impacts. In some cases, conducting preconstruction surveys to determine the presence or absence of special-status plant and wildlife species within the project area and subsequent avoidance of identified resources will avoid significant impacts. Due to the extent of the project, however, specific project components—such as grading new access roads and digging new tower footings—will affect areas where the presence of special-

status species is presumed based on occurrence of suitable habitat, CNDDB occurrences in relation to the project area, or results of prior biological resource assessment surveys.

APM BIO-8: Restore upland and riparian habitat types temporarily disturbed during construction. Following construction, PG&E will restore upland and riparian habitat types temporarily disturbed during construction. As part of a Habitat Mitigation Plan (HMP) developed for the project, a list of specific actions necessary to restore habitats disturbed onsite will be prepared by a qualified biologist prior to construction. While some habitats in the project area may require minimal restoration actions, such as restoration of the topography and topsoil following construction, the HMP will detail the specific measures necessary for each habitat and area disturbed to ensure that the functions and values of the disturbed habitat are restored.

APM BIO-9: Implement sudden oak death preventative measures when trimming or removing oak trees. PG&E will implement BMPs to control the potential introduction or spread of sudden oak death when trimming or removing trees as part of the project. At a minimum, the BMPs will include the following measures:

- All debris from host species (wood, branches, and chips) shall be left onsite following trimming.

- All tools used to perform the work shall be disinfected before leaving infested areas.

APM BIO-10: Avoid impacts to protected trees, track protected trees removed during construction, and mitigate for impacts to protected trees.

- PG&E will avoid impacts to protected trees to the extent feasible. If avoidance is not feasible, PG&E will track the trees removed, including their species and size, and will replace protected trees as stipulated in applicable local regulations. To avoid removal of active nests, tree trimming, vegetation removal, and removal of towers should be conducted during the non-breeding season (August 16–March 1).

APM BIO-11: Implement general protection measures for waters of the United States. During construction, PG&E will implement the following measures to minimize or avoid impacts on waters of the United States:

- Establish exclusion zones and minimize the amount of area disturbed to the minimum amount necessary to complete the work. Align work areas to avoid wetland areas and margins as much as feasible.

- Delineate wetland areas, and restrict construction personnel and equipment from entering fenced protected areas.

- Conduct all fueling of vehicles, equipment, and helicopters at least 100 feet from wetlands and other waterbodies.

- To the extent feasible, complete road construction adjacent or within waters of the United States during the dry season. If it is not feasible to complete road construction work during the dry season, PG&E will use appropriate erosion control measures for the site that will be identified in the SWPPP (see APM HYDRO-1 in Section 4.8).

APM BIO-12: Develop a wetlands mitigation plan. PG&E will develop a wetlands mitigation plan to offset effects to waters of the United States, including wetlands. The plan will be developed in consultation with the Corps and will include, at a minimum, plans for restoration of any temporarily disturbed wetlands and other waters of the United States and methods to achieve mitigation for permanent impacts at a minimum ratio of 1:1. Mitigation may include onsite restoration and improvement of existing wetlands or other offsite compensation.

APM BIO-13: Complete spring surveys for special-status plants in all unsurveyed disturbance areas. Prior to construction, a qualified botanist will complete spring surveys for special-status plants at all unsurveyed staging areas, helicopter landing areas, and new access roads to determine the presence or absence of special-status plants. The surveys should be completed by qualified botanists and should be conducted during the appropriate period(s) necessary to observe special-status plants known to occur in the region.

APM BIO-14: Avoid impacts on special-status plants. PG&E will, under the direction of a qualified botanist and to the extent possible, adjust the location of staging areas, pull sites, helicopter landing areas, access roads, and other project components to completely avoid impacts on Pajaro manzanita and other special-status plants that are discovered prior to or during construction. If this avoidance measure is not feasible, PG&E will implement APM BIO 15 (Minimize impacts on special-status plants) and APM BIO-16 (Restore habitat for special status plants disturbed during construction).

APM BIO-15: Minimize impacts on special-status plants. Avoidance areas will be clearly staked and flagged in the field by a qualified botanist prior to construction. If Pajaro manzanita and other special-status plants cannot be avoided during construction, PG&E will minimize impacts by reducing the work area to the smallest area necessary to complete the work. Where temporary disturbance is necessary, PG&E will conduct project activities and necessary ground disturbance in a manner that is consistent with the successful reestablishment of the species to the extent feasible. The specific actions necessary will depend on the biology of the species in question; however, the actions will be designed to ensure successful reestablishment of the species following temporary disturbance. As part of an HMP, a list of specific actions will be prepared by a qualified botanist prior to construction that will include onsite restoration actions, or reseeding plans specific to any impacted construction areas (described below in APM BIO-16).

To minimize impacts to Pajaro manzanita, which is already known to occur in the project area, PG&E will implement the following measures:

- Vegetation clearing in occupied Pajaro manzanita habitat should be conducted after Pajaro manzanita has set seed and before flowering begins (typically between May and November).

- If mechanical brushing is conducted in occupied Pajaro manzanita habitat, mastication implements should not come within 6 inches of the ground surface to avoid disturbing the seed bank.

- Where feasible, removal of entire Pajaro manzanita plants from the ground should be avoided.

The Environmental Training and Monitoring Program (see APM BIO-1) will also include information on the location of special-status plants in the project area and the measures that will be implemented to avoid or minimize impacts on the plants.

APM BIO-16: Restore habitat for special-status plants disturbed during construction. If impacts on special status plants are unavoidable, PG&E will develop a special-status plant restoration plan as part of the HMP and in consultation with CDFG. The specific actions necessary will depend on the biology of the species in question and the type of impact (i.e., temporary or permanent); however, the actions will be designed to ensure successful reestablishment of the species following disturbance. The plan will be prepared by a qualified botanist prior to construction and will indicate when and where the actions will be implemented during construction.

APM BIO-17: Implement management practices to control the introduction and spread of invasive plants. Prior to construction, PG&E will identify the location of noxious weed species of concern within areas that will be disturbed as part of the project. Appropriate management practices will be designed by a botanist and implemented during construction to reduce the likelihood of spreading already established weeds into new areas or increasing their abundance, and of introducing new weed species to the project area. Actions to prevent noxious weed establishment will be described within the HMP and will be consistent with PG&E's practices for managing invasive plants. The project SWPPP will include BMPs such as using construction equipment that has been cleaned of soil and plant parts, including seeds, before entering the project area and using weed-free straw for erosion control. Disturbed areas will be revegetated with appropriate locally based native seed mixes. Implementing the management practices described above will reduce potentially significant impacts related to non-native invasive plants to a less-than-significant level.

APM BIO-18: Implement avoidance and mitigation measures outlined in the USFWS biological opinion. USFWS will specify avoidance and mitigation measures to minimize impacts to California red-legged frogs and California tiger salamanders in the biological opinion they will draft for the project. PG&E will follow and implement the measures that are outlined in the biological opinion.

APM BIO-19: Compensate for permanent impacts on California red-legged frog and California tiger salamander upland habitat. It was determined that the project would result in permanent impacts to suitable upland habitat for California red-legged frogs and California tiger salamanders. To compensate for anticipated permanent impacts to suitable upland habitat for California red-legged frogs and California tiger salamanders, PG&E may preserve additional upland habitat within a USFWS-approved conservation area; specific actions will be determined in coordination with USFWS. The ratio of compensation, specific mitigation acreages, and location of the conservation area will be determined through formal consultation with USFWS.

APM BIO-20: Conduct tree trimming, vegetation removal, and, if possible, tower removal during the non-breeding season. To avoid removal of active nests, tree trimming, vegetation removal, and removal of towers should be conducted during the non-breeding season (August 16–March 1). If this is not possible, APM BIO-21 will be implemented.

APM BIO-21: Conduct preconstruction surveys for nesting migratory birds and raptors, and develop an Avian Protection Plan. Construction activities are anticipated to occur mainly during the nesting season for migratory birds and raptors (generally early February through early August) (Avian Power Line Interaction Committee and USFWS 2005). PG&E will retain a qualified wildlife biologist to conduct preconstruction surveys for nesting birds, for all construction activities that occur within or near suitable breeding habitat. The surveys will be staggered so that they are conducted no more than 1 week prior to the start of construction activities in any one area. Surveys will include the power line route, staging areas, pull sites, and areas of access road improvements where ground disturbance or vegetation clearing is required, at a frequency and timing appropriate for nest detection. If no active nests are detected, no additional mitigation measures are required.

PG&E will develop a project-specific Avian Protection Plan that will outline protection measures for nesting migratory birds and raptors, in the event that nesting migratory birds or raptors are identified in areas where construction activities will occur during preconstruction surveys.

APM BIO-22: Avoid disturbance of active nests by helicopter use. Use of helicopters will be restricted to necessary trips to install and remove towers and poles, install power lines, and deliver and remove equipment to areas lacking vehicle access. Helicopter flight paths will be designed to minimize impacts to nests, and buffers of active nests may be greater than those stated above to avoid helicopter disturbance of active nests identified in preconstruction surveys of the project sites. If active nests occur under planned helicopter flight paths, especially those near landing areas, coordination with CDFG will be required to determine whether modification of the flight path is necessary to avoid disturbance of active nests.

APM BIO-23: Conduct preconstruction surveys for active burrowing owl burrows. CDFG (1995) recommends that preconstruction surveys be conducted in suitable habitat in the project study area and in a 250 foot-wide buffer zone around the construction site to locate active burrowing owl burrows. PG&E will retain a qualified biologist to conduct preconstruction surveys for active burrows according to the CDFG guidelines. The surveys will include a nesting season survey and a wintering season survey, which is the season immediately preceding construction. The surveys will cover all affected areas, including the power line route, staging areas, pull sites, and areas of access road improvements where ground disturbance is required. If no burrowing owls are detected, no further mitigation is required. If active burrowing owl burrows are detected, PG&E will implement APM BIO-24 (Implement CDFG guidelines for burrowing owl mitigation, if necessary).

APM BIO-24: Implement CDFG (1995) guidelines for burrowing owl mitigation, if necessary. Disturbance of occupied burrows will be avoided to the maximum extent feasible. Disturbance is generally defined as activities occurring with 250 feet of active burrowing owl nesting pairs during the breeding season (February 1 through August 31), or within 160 feet of occupied burrows in the non-breeding season (September 1–January 31).

During the non-breeding season, if direct impacts to an occupied burrow are unavoidable, passive relocation techniques may be considered after all other alternatives have been exhausted. Relocation may involve installing one-way doors at occupied burrow entrances and ensuring that alternative suitable burrows are available. Any relocation effort will be implemented in coordination with CDFG and in accordance with standard burrowing owl

guidelines. Any burrowing owl exclusion process will be coordinated by a biologist with prior burrowing owl relocation experience.

PG&E will support site-specific mitigation measures for any burrowing owls with potential to be impacted by construction activities. Measures may include onsite burrow enhancement or artificial burrow installation, in coordination with CDFG. In the event that a site-specific burrowing owl relocation is implemented, PG&E will consult with CDFG regarding suitable replacement of foraging and burrow habitat.

APM BIO-25: Implement avoidance and mitigation measures outlined in the USFWS biological opinion. USFWS will specify avoidance and mitigation measures to minimize impacts on San Joaquin kit foxes in the biological opinion they will draft for the project. PG&E will follow and implement the measures outlined in the biological opinion.

Cultural Resources

APM CR-1: Implement construction monitoring. An archaeologist that meets the Secretary of the Interior's Standards and Guidelines for professional archaeologists will monitor ground-disturbing activities in areas that were documented as having high archaeological sensitivity on Figures 2a through 2d of the Historic Properties Inventory Report (ICF 2010). The monitor will be empowered to temporarily halt construction in the immediate vicinity of a discovery while it is evaluated for significance. With the archaeologist's approval, work may continue on other portions of the site. If the discovery proves to be significant, additional measures will be implemented; these may include avoidance, capping beneath a layer of sterile soil, or data recovery through archaeological excavation (PRC 21083).

APM CR-2: Stop work if previously unknown cultural resources are discovered. If buried cultural resources such as chipped or ground stone, historic debris, or building foundations are inadvertently discovered during site preparation or construction activities, work will stop in that area and within 100 feet of the find until a qualified archaeologist can assess the significance of the find and, if necessary, develop appropriate treatment measures in consultation with PG&E and other appropriate agencies. With the archaeologist's approval, work may continue on other portions of the site. PG&E will be responsible for ensuring that the archaeologist's recommendations for treatment are implemented.

APM CR-3: Stop work if human remains are discovered. If human remains are encountered during any phase of construction, work within a 100-foot radius of the remains will be suspended immediately and PG&E and/or their representative will immediately notify the respective county coroner, as required by state law (California Health and Safety Code 7050.5) and County Ordinance No. B6-18. If the remains are determined by the coroner to be Native American, the Native American Heritage Commission (NAHC) will be notified within 24 hours, and the NAHC will in turn immediately notify the Most Likely Descendent, pursuant to Section 5097.98 of the Sate Resources Code. Upon notification, the MLD has 48 hours to make recommendations as to the treatment or disposition of the remains. PG&E or its appointed representative will implement any mitigation before the resumption of activities at the site where the remains were discovered.

Geology, Soils and Seismicity

APM GEO-1: Perform Site-Specific Geologic Studies at Active Fault Crossings and Modify Siting/Design as Feasible to Reduce Damage. For all pole or tower replacements proposed within a State-designated Earthquake Fault Zone or within 500 feet on either side of a fault considered likely to be active but not zoned by the State, PG&E will perform site-specific geologic investigations with the purpose of locating any active fault trace(s) and ensuring that project facilities are sited and designed to avoid and reduce damage due to surface fault rupture. Studies may include any appropriate combination of literature research, air photo evaluation, reconnaissance field survey, and/or subsurface investigation (fault trenching), based on the professional judgment of licensed supervising personnel (California Professional Geologist or Certified Engineering Geologist). Where significant potential for damage due to surface fault rupture is identified, facilities siting and design will be modified to the extent feasible to avoid or reduce damage.

Hazards and Hazardous Materials

APM HAZ-1: Stop work if hazardous substances are encountered during construction. If hazardous substances are unexpectedly encountered during trenching, grading, or excavating work, work will be stopped until the material is properly characterized and appropriate measures are taken to protect human health and the environment. If excavation of hazardous materials is required, the materials will be handled, transported, and disposed of in accordance with federal, state, and local regulations.

APM HAZ-2: Conduct groundwater sampling and testing if suspected contaminated groundwater is encountered during construction. If suspected contaminated groundwater is encountered in the proposed project construction areas, samples will be collected and submitted for analysis of petroleum hydrocarbons, metals, volatile organic compounds, and semi-volatile organic compounds. If necessary, groundwater will be collected during construction, contained, and disposed of in accordance with all applicable regulations.

APM HAZ-3: Develop and implement a Helicopter Lift Plan. PG&E will require the helicopter vendor to prepare a Helicopter Lift Plan for approval by the FAA prior to any construction helicopter operations. Any specific transportation needs (e.g., temporary road closures) will be identified in the plan and will be coordinated with the appropriate jurisdictions.

APM HAZ-4: Develop and implement a Fire Risk Management Plan. PG&E follows a standard practice of developing and implementing a Fire Risk Management Plan that addresses fire-suppression equipment and procedures to be used during construction and training of construction and maintenance crews. Additionally, fire suppression equipment and materials will be kept adjacent to all areas of work and in staging areas, and will be clearly marked. Detailed information for responding to fires will be provided in the project's Fire Risk Management Plan. Information contained in the plan and the locations of fire-suppression materials and equipment will be included in the employee environmental training discussed in APM BIO-1.

Hydrology and Water Quality

APM HYDRO-1: Prepare and Implement a Storm Water Pollution Prevention Plan. PG&E or its contractor will prepare and implement a SWPPP to prevent construction-related erosion and sediments from entering nearby waterways. The SWPPP will include a list of BMPs to be implemented in areas with potential to drain to tributaries of the Salinas River in Monterey County or to the San Benito River in San Benito County. These BMPs will be selected to achieve maximum sediment removal and represent the best available technology that is economically achievable. BMPs to be implemented as part of the project-specific SWPPP may include, but are not limited to, the following control measures:

- Temporary erosion control measures (such as silt fences, staked straw bales/wattles, silt/sediment basins and traps, check dams, geofabric, sandbag dikes, grass buffer strips, high infiltration substrates, grassy swales, and temporary revegetation or other ground cover) will be employed to control erosion from disturbed areas.

- Drainage facilities in downstream offsite areas will be protected from sediment using BMPs consistent with Central Coast Water Board requirements.

- Vegetative cover will be established on the disturbed areas as soon as possible after disturbance.

APM HYDRO-2: Develop and implement a Spill Prevention Control and Countermeasure Plan. PG&E or its contractor will develop and implement an SPCCP to minimize the potential for, and effects of, spills of hazardous, toxic, or petroleum substances during all construction activities. The SPCCP will be completed and included in the SWPPP before any construction activities begin. PG&E will routinely inspect the construction areas to verify that the control measures specified in the SPCCP are properly implemented and maintained. PG&E will notify its contractors immediately if there is a noncompliance issue and will require compliance.

If an appreciable spill has occurred, a detailed analysis will be performed by a Registered Environmental Assessor to identify the likely cause of contamination. This analysis will conform to American Society for Testing and Materials (ASTM) standards and will include recommendations for reducing or eliminating the source or mechanisms of contamination. Based on this analysis, PG&E and its contractors will select and implement additional measures to control contamination, with a performance standard that groundwater quality and surface water quality must be returned to baseline conditions.

APM HYDRO-3: Perform a drainage study and implement a drainage plan. A drainage study will be performed for any area that crosses a waterway and requires a conveyance structure (culvert) for grading of new construction maintenance roads. The study will include calculations for the potential increases in stormwater runoff from related construction activities. The study also will identify critical drainage paths, and PG&E will implement drainage improvements to minimize the risk of flooding to downstream areas. The drainage plan will require that PG&E or its contractor will be responsible for proper maintenance of the drainages and any BMP associated with each drainage. Implementation of these measures will ensure that altered drainage patterns from project-related construction activities do not significantly affect erosion or sedimentation.

Noise

APM NOI-1: Implement noise control measures. PG&E will implement the following noise abatement measures during project construction to minimize the impact of temporary construction-related noise on nearby residences:

- Notify residents near future construction zones regarding the forecast schedule for nearby construction and provide project contact information.
- Comply with manufacturers' muffler requirements on all construction equipment engines.
- Turn off construction equipment when not in use, where applicable.
- Minimize equipment use.
- Use equipment fitted with factory-installed muffling devices during construction when readily available.
- Route truck traffic away from residential areas where feasible.

APM NOI-2: Implement noise control measures for helicopter noise. PG&E will implement the following BMPs during project construction to minimize the impact of temporary construction-related noise generated by helicopters:

- Notify residents near future construction zones and along helicopter flight paths regarding the schedule and reasons for upcoming construction and flight operations.
- Provide project contact information to facilitate response to noise complaints during the construction activity.
- To the extent feasible, plan helicopter flight paths between construction zones and the helicopter staging areas to avoid noise-sensitive receivers. Note: All flight operations including takeoff, landing, and flight paths must comply with FAA regulations and all applicable safety concerns.

Public Services

APM PUB-1: Maintain Secured Facilities during construction activities. PG&E will implement the following measures during construction activities:

- All equipment will be locked and secured when left unattended at the most secure locations available;
- Contract security will be used at active pull/tension sites, laydown, and storage areas outside work hours;
- All open holes will be covered and secured once activity at that location stops (after hours);
- Anchor bolts on foundations without structures will be capped; and
- Safety structures will be placed at road crossings during overhead wire installation activity to protect traffic and pedestrians.

Recreation

APM REC-1: Avoid Disruption of Recreational Facilities along the Juan Bautista de Anza National Historic Trail during Peak Use. PG&E will limit construction activities that occur in the immediate vicinity of the Juan Bautista de Anza National Historic Trail to weekdays or as otherwise permitted by the National Park Service. PG&E will ensure that the trail is fully accessible on the weekends, as well as any holidays observed by the National Park Service.

Utilities and Service Systems

APM PU-1: Conduct a pre-construction records search/field survey to identify specific locations of water wells and well fields. To ensure minimal disturbance or alteration of water wells or well fields within the project alignment, PG&E will conduct a pre-construction records search and field survey to identify specific locations of water wells and well fields.

APM PU-2: Notify Underground Service Alert at least two days prior to initiation of construction activities in the underground portion of the power line. PG&E will ensure that Underground Service Alert is notified at least two days prior to initiation of construction activities of the underground portion of the power line. Underground Service Alert verifies and physically marks the location of all existing underground utilities in the area of anticipated construction activities to prevent accidental disturbance.

2.10 Electric and Magnetic Fields Summary

2.10.1 Electric and Magnetic Fields

This IS/MND does not consider electric and magnetic fields (EMF) in the context of the CEQA analysis of potential environmental impacts because [1] there is no agreement among scientists that EMF creates a potential health risk, and [2] there are no defined or adopted CEQA standards for defining health risk from EMF. However, recognizing that there is a great deal of public interest and concern regarding potential health effects from human exposure to EMF from transmission lines, this document does provide information regarding EMF associated with electric utility facilities and human health and safety. Thus, the EMF information in this IS/MND is presented for the benefit of the public and decision makers.

Potential health effects from exposure to *electric fields* from transmission lines (i.e., the effect produced by the existence of an electric charge, such as an electron, ion, or proton, in the volume of space or medium that surrounds it) typically do not present a human health risk since electric fields are effectively shielded by materials such as trees, walls, etc. Therefore, the majority of the following information related to EMF focuses primarily on exposure to *magnetic fields* (i.e., the invisible fields created by moving charges) from transmission lines. Additional information on electric and magnetic fields generated by transmission lines is presented in Appendix A.

After several decades of study regarding potential public health risks from exposure to power line EMF, research results remains inconclusive. Several national and international panels have conducted reviews of data from multiple studies and state that there is not sufficient evidence to

conclude that EMF causes cancer. Most recently the International Agency for Research on Cancer (IARC) and the California Department of Health Services (DHS) both classified EMF as a *possible* carcinogen.

Presently, there are no applicable federal, State or local regulations related to EMF levels from power lines or related facilities, such as substations. However, the California Public Utilities Commission has implemented a decision (D.06-01-042) requiring utilities to incorporate "low-cost" or "no-cost" measures for managing EMF from power lines up to approximately four percent of total project cost. Using the four percent benchmark, PG&E has incorporated low-cost and no-cost measures to reduce magnetic field levels along the power line corridor.

2.10.2 EMF and the Proposed Project

PG&E has conducted a design comparison of calculated magnetic field levels for both the Hollister Tower Segment and Hollister Pole Segment. In accordance with the EMF Design Guidelines, filed with the CPUC in compliance with CPUC Decisions 93-11-013 and 06-01-042, the Proposed Project would implement the following "no-cost and low-cost" magnetic field reduction measures. The field reduction measures would include (PG&E, 2009a):

For the Hollister Tower Segment (seven mile segment north of Lagunitas Switches, existing Moss Landing- Salinas – Soledad 115 kV ROW)

- Raise the height of the line on four of the five towers in the residential land use area by five feet. This is to be achieved by installing horizontal post insulators on suspension towers. The fifth tower is a transposition tower and cannot be modified through this method or any other method that would not increase the massiveness of the tower.
- Given that lines are optimally phased, existing phasing would be maintained to reduce magnetic levels.

For the Hollister Pole Segment (nine mile segment, east of the Hollister Tower Segment, existing Hollister No. 1 115 kV ROW)

- Phases of the new Hollister 115 kV line would be arranged for minimum magnetic field at the edge of the ROW. Phases would be arranged C-B-A (Top, Middle, Bottom)
- For the Hollister No. 1 115 kV line maintain the existing configuration, A-B-C (Top, Middle, Bottom)

2.11 Required Permits and Approvals

The CPUC is the CEQA lead agency for the Proposed Project. PG&E would obtain permits, approval or licenses as need from, and would participate in reviews and consultation as needed with, federal, State and local agencies as show in **Table 2-11**.

TABLE 2-11
SUMMARY OF PERMITS REQUIREMENTS

Permit/Approval/Consultation	Agency	Jurisdiction/Purpose
Federal Agencies		
Section 7 Consultation, Endangered Species Act	U.S. Fish and Wildlife Service	Construction, operation, and maintenance on land that may affect a federally listed species or its habitat; incidental take authorization (if required)
Nationwide or Individual Permit (Section 404 of the Clean Water Act)	U.S. Army Corps of Engineers	Construction impacting Waters of the United States, including wetlands
Section 106 Review, National Historic Preservation Act	Advisory Council on Historic Preservation	Construction, operation, and maintenance on land that may affect cultural or historic resources
State Agencies		
Permit to Construct	California Public Utilities Commission	Overall project approval and California Environmental Quality Act review
National Pollutant Discharge Elimination System Construction Storm water Permit	RWQCB	Storm water discharges associated with construction activities disturbing more than one acre of land
Section 401 Water Quality Certification (or waiver)	RWQCB	Certifies that project is consistent with state water quality standards
Encroachment Permit (ministerial)	California Department of Transportation	Construction, operation, and maintenance within, under, or over state highway ROW
Endangered Species Consultation	California Department of Fish and Game	Construction, operation, and maintenance that may affect a state-listed species or its habitat; incidental take authorization (if required)
Consistency Determination (ESA) (ministerial)	California Department of Fish and Game	Confirmation that the state protection measures required for duly (fed & state)-listed species or its habitat are included in the federal permits or concurrence letters.
Streambed Alteration Agreement	California Department of Fish and Game	Construction, operation, restoration in the bed, bank or channel of any river, stream or lake.
Local Agencies		
Encroachment Permit (ministerial)	San Benito County Monterey County City of Hollister	Construction, operation, and maintenance within, under, or over county road ROW
Demolition Permit (ministerial)	Monterey Bay Unified Air Pollution Control District	Air Board permit for demolition of towers due to paint and/or concrete materials contents (e.g. lead paint).
Tree Removal Permit (ministerial)	San Benito County and Monterey County	Removal of oak trees greater than 6 inches in trunk diameter unless in public right of way.

References – Project Description

Pacific Gas and Electric Company (PG&E), 2009a. *Application of Pacific Gas and Electric Company for a Permit to Construct the Hollister 115 kV Power Line Reconductoring Project*, filed November 23, 2009.

PG&E, 2009b. *Proponent's Environmental Assessment for the Application of Pacific Gas and Electric Company for a Permit to Construct the Hollister 115 kV Power Line Reconductoring Project*, filed November 23, 2009.

PG&E, 2009c. *PG&E Responses to CPUC Data Requests 1 and 2 for the Hollister 115 kV Power Line Reconductoring Project*, submitted to the CPUC on January 12, 2010 and March 1, 2010, respectively.

PG&E, 2010. Revisions to the proposed project provided via personal electronic communication from Danielle Wilson, August 17, 2010 and August 23, 2010, respectively.