## **Figures**



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Figure 3.1-2a Existing Lattice Steel Towers, Tubular Steel Pole and Lattice Steel Pole Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company



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View looking southwest from within the project alignment from Manzanita Drive.

Tubular steel pole in view is galvanized steel.



View looking southwest from within the project alignment from Montclair Railroad Trail.

Tubular steel poles in view are Corten steel.

Figure 3.1-2b Existing Tubular Steel Pole Types Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company





Requirements, Final Engineering, and Other Factors

Jacobs

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Figure 3.3-3a Lattice Steel Tower (Typical) Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company



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Typical Structure is 60% design. Exact structure type, configuration, and dimensions will be determined by CPUC requirements, final engineering, and other factors and are subject to change.

Figure 3.3-3b Lattice Steel Pole (Typical) Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company





Figure 3.3-3c Modified Tubular Steel Pole (Typical) with Drilled Pier Foundation Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company





Figure 3.3-3d Tubular Steel Pole (Typical) with a Micropile Foundation Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company



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Anticipated to be used for TN27A, TN27B, TS27A and TS27B at the eastern end of the underground portion of the project near the intersection of Estates Drive and Park Boulevard. Figure 3.3-4a Vertical Single Circuit Transition Structure Tubular Steel Pole (Typical) Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company





Anticipated to be used for TS28 at the western end of the underground portion of the project at Oakland X Substation. Figure 3.3-4b Vertical Double Circuit Transition Structure Tubular Steel Pole (Typical) Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company





Figure 3.3-3c H-Frame Double Circuit Transition Structure Tubular Steel Pole (Typical) at the western end of the underground portion

Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

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Anticipated to be used for TN28A and TN28B

of the project at Oakland X Substation.



Figure 3.3-5 Example Single Circuit and Double Circuit Transition Structure Tubular Steel Poles Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company



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Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors





Underground Vault Details Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company







Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors























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Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company



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Legend		Exact structure location, type, configuration, and dimensions will be determined by CPUC			Version: 11/1	2/2024	
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	Existing	Work Area			Feet		
—	Proposed						
•	Temporary Reconductoring Pole			Fig Pro	gure 3 opose	.5-1 Page 3 d Project -	of 25 Detail
•	Guard Pole			Moraga-Oakland X	(115 k	V Rebuild I	Project
Under	rground Routes			Pacific	Jas &	Electric Co	mpany
	Proposed					Jac	obs







Proposed

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- Reconductoring PoleGuard Pole
- Underground Routes

Proposed

Figure 3.5-1 Page 9 of 25 Proposed Project - Detail Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

Feet

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**Underground Routes** 

Proposed

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Overhe	ad Routes	Guard Poles		
—— E	Existing	Staging Area	Feet	
— F	Proposed	Work Area		
۲ F	Temporary Reconductoring Pole		Figure 3.5-1 Page ⁄ Proposed Project	l6 of 25 - Detail
• (	Guard Pole		Moraga-Oakland X 115 kV Rebuild	Project
Underg	round Routes			ompany
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Temporary		1000	Work Area			Figure 3.	5-1 Page 1	7 of 25
R	econductoring Pole	Work Area, Tempora		/ Closure	Moraga-Oakland X 115 kV Rebuild Project			
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—— Existing	Guard Poles			Feet			
Proposed	Tension Pull Site	e					
Temporary	Work Area			Figure 3.5-1	Page 19 of 25		
<ul> <li>Reconductoring Pole</li> </ul>	Work Area, Tem	Area, Temporary Closure Moraga Oakland X			15 kV Rebuild Project		
<ul> <li>Guard Pole</li> </ul>	EB Work Area C	EB Work Area Option		Pacific Gas & Electric Compan			
Underground Routes	Move Distributio	on Pole Option			- · · · · · · · · · · · · · · · · · · ·		
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Figure 3.5-1 Page 21 of 25 Proposed Project - Detail Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

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Temporary

Guard Pole

Underground Routes
Proposed

**Reconductoring Pole** 

0



#### Exact structure location, type, configuration, Version: 11/12/2024 Legend and dimensions will be determined by CPUC Milepost Access requirements, final engineering, and other factors and are preliminary and subject to change. **Overhead Structures** ····· Walk-In Existing **Temporary Work Areas** Ν Proposed **Guard Poles** 500 250 0 **Overhead Routes** Staging Area Feet Existing Staging Area, Temporary Closure Proposed Work Area Figure 3.5-1 Page 22 of 25 Temporary Work Area, Temporary Closure 0 **Proposed Project - Detail Reconductoring Pole** Moraga-Oakland X 115 kV Rebuild Project Guard Pole Pacific Gas & Electric Company **Underground Routes**

Proposed

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Proposed	Work Area				
Temporary Reconductoring Pole	Work Area, Tempor	ary Closure		Figure 3.5-1 Pag Proposed Proje	je 23 of 25 ∋ct - Detail
<ul> <li>Guard Pole</li> </ul>			Moraga-Oakla	and X 115 kV Rebu	uild Project
Underground Routes			Pa	cilic Gas & Electric	: Company

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Proposed

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- Existing
- Proposed

#### **Overhead Routes**

- Existing Proposed Temporary
- Reconductoring Pole
   Guard Pole
- Underground Routes
  - Proposed

Figure 3.5-1 Page 25 of 25 Proposed Project - Detail Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

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Feet

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500



Figure 3.5-2 Typical Conductor Stringing Diagram (including typical equipment) Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company









Figure 3.5-3 Example Guard Structures Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company





Figure 4.2-1a Replacement Route (Overhead and Underground) Options Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors

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Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

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Requirements, Final Engineering, and Other Factors

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Pacific Gas & Electric Company

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#### Estates Drive Underground

Overhead
 Underground
 Transition Station (approximate location)
 Transition Poles

Figure 4.2-3c Alternative B: Manzanita Drive-Colton Boulevard-Estates Drive Underground - Central Section Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

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0.25

Miles

0.5

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## Legend



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Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors

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## Legend

Substation	Alternative E: Proposed Project with	4	
 Existing Overhead Route	Campground Overhead Option		
East Bay Regional Park District (EBRPD): Huckleberry Botanic Regional Preserve and	Overhead - Campground     Overhead     Underground	∾  0 0.5	1
Sibley Volcanic Regional Preserve		Miles	
Planned Campground	mpground Alternative E: Pro Campgroun Moraga-Oakland X 11 Pacific Gas Preliminary and Subject to Change Based on CPUC		gure 4.2-6 oject with ad Option hild Project Company
	Requirements, Final Engineering, and Other Factors	<u> </u>	acobs

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Figure 4.2-7 Alternative F: Conceptual South Overhead Alignment Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors

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Figure 4.2-8 Example Transition Station with Two 230 kV Circuits in an Approximately 0.3-acre Yard Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company Jacobs







Landslide profile showing a failure plane under roadway.

View of the approximate 3 to 4 feet of vertical displacement.



A deep-seated landslide with a failure plane extending under roadway.

Figure 4.2-9 Example Landslide Failure Plane and Roadway Uplift of Redwood Road in Novato, California Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company



Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors





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1. Snow Court in Moraga looking southwest Structures EN2, EN3, ES3



 McCosker Loop Trail in Robert Sibley Volcanic Regional Preserve looking northeast\* Structures EN8, ES8A, ES8B, ES9

\* KOP; see Figure 5.1-3 for visual simulation Refer to Figure 5.1-1a for photograph viewpoint locations ENVIRONMENTAL VISION 241104 Figure 5.1-2a Representative Photographs Moraga–Oakland X 115 kV Rebuild Project



3. East Bay Skyline Trail (Bay Area Ridge Trail) looking northeast\* Structures EN4, EB5, EN6, EN7, EN8, EN9, ES5, ES6, ES7, ES8, ES8A, ES8B, ES9, ES10



3b. East Bay Skyline Trail (Bay Area Ridge Trail) looking southwest\* Structures EN10, ES11

\* KOP; see Figures 5.1-4 and 5.1-5 for visual simulations Refer to Figure 5.1-1a for photograph viewpoint locations ENVIRONMENTAL VISION

Figure 5.1-2b Representative Photographs Moraga–Oakland X 115 kV Rebuild Project



4. Manzanita Drive near The Hills Swim and Tennis Club looking west\* Structures EN11, ES12



Skyline Boulevard looking west\* Structures EN12, ES13

\* KOP; see Figures 5.1-6 and 5.1-7 for visual simulations Refer to Figure 5.1-1a for photograph viewpoint locations ENVIRONMENTAL VISION

Figure 5.1-2c Representative Photographs Moraga–Oakland X 115 kV Rebuild Project



6. Balboa Drive at West Circle looking northeast\* Structures EN16, EN15, EN14, EN13, EN12, ES18, ES17, ES16, ES15, ES13



6b. Thackeray Drive at Westover Drive looking northwest\* Structures EN18, EN17A, ES20 \* KOP; see Figures 5.1-8 and 5.1-9 for visual simulations Refer to Figure 5.1-1a for photograph viewpoint locations

Figure 5.1-2d Representative Photographs Moraga–Oakland X 115 kV Rebuild Project



7. Montclair Railroad Trail in Shepherd Canyon Park looking north\* Structures EN19, ES21



8. Drake Drive at Rincon Drive looking south\* Structures EN21, ES23 \* KOP; see Figure 5.1-10 and 5.1-11 for visual simulations Refer to Figure 5.1-1a for photograph viewpoint locations

ENVIRONMENTAL VISION

Figure 5.1-2e Representative Photographs Moraga–Oakland X 115 kV Rebuild Project



8b. Drake Drive at Magellan Drive looking northeast\* Structures EN20, ES22



9. State Route 13 (Warren Freeway) looking north Structures EN23, ES25 \* KOP; see Figure 5.1-12 for visual simulation Refer to Figure 5.1-1a for photograph viewpoint locations ENVIRONMENTAL VISION 241104

Figure 5.1-2f Representative Photographs Moraga–Oakland X 115 kV Rebuild Project



10. State Route 13 (Warren Freeway) looking southwest\* Structures EN24, ES26



 11. Bridgeview Trail in Dimond Canyon looking northeast Structures EN24, ES26
 \* KOP; see Figure 5.1-13 for visual simulation Refer to Figure 5.1-1a for photograph viewpoint locations
 ENVIRONMENTAL VISION 241104

Figure 5.1-2g Representative Photographs Moraga–Oakland X 115 kV Rebuild Project



12. Montclair Golf Course looking southwest Structures EN25, ES27



13. Park Boulevard looking south Structures EN28, ES30

Refer to Figure 5.1-1a for photograph viewpoint locations ENVIRONMENTAL VISION 241104

**Figure 5.1-2h Representative Photographs** Moraga–Oakland X 115 kV Rebuild Project



13b. Park Boulevard looking northeast\* Structures EN27, EN26 , EN25, ES29, ES28, ES27



14. Leimert Bridge looking north Structures EN28, ES30
\* KOP; see Figure 5.1-14 for visual simulation Refer to Figure 5.1-1a for photograph viewpoint locations
ENVIRONMENTAL VISION 241104

Figure 5.1-2i Representative Photographs Moraga–Oakland X 115 kV Rebuild Project



15. Park Boulevard at Estates Drive looking north Structures EN29, ES31



16. Estates Drive near Sandringham Road looking south\* Structures EN29, ES31
\* KOP; see Figure 5.1-15 for visual simulation Refer to Figure 5.1-1a for photograph viewpoint locations
ENVIRONMENTAL VISION 241104

Figure 5.1-2j Representative Photographs Moraga–Oakland X 115 kV Rebuild Project



17. Hollywood Avenue near San Sebastian Avenue looking northwest\* Structures EN31, ES33



 18. Trestle Glen Road near Humphrey Place looking northeast Structures EN33, ES34
 \* KOP; see Figure 5.1-16 for visual simulation Refer to Figure 5.1-1a for photograph viewpoint locations
 ENVIRONMENTAL VISION

Figure 5.1-2k Representative Photographs Moraga–Oakland X 115 kV Rebuild Project



19. Holman Road near Bates Road looking northeast\* Structures EN35, ES36



20. Holman Road near Grosvenor Place looking east Oakland X Substation \* KOP; see Figure 5.1-17 for visual simulation Refer to Figure 5.1-1a for photograph viewpoint locations ENVIRONMENTAL VISION 241104

Figure 5.1-2I Representative Photographs Moraga–Oakland X 115 kV Rebuild Project



Existing view from Sibley Volcanic Regional Preserve McCosker Loop Trail looking northeast (KOP 2) Structures EN8, ES8A,8B,9



Visual simulation of proposed project from Sibley Volcanic Regional Preserve McCosker Loop Trail looking northeast (KOP 2) Structures RN8, RS8

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors Figure 5.1-3b Visual Simulation - Sibley Volcanic Regional Preserve Moraga–Oakland X 115 kV Rebuild Project



Existing view from East Bay Skyline Trail (Bay Area Ridge Trail) looking northeast (KOP 3) Structures EN9,8,7,6,5,4, ES10,9,8A,8B,8,7,6,5



Visual simulation of proposed project from East Bay Skyline Trail (Bay Area Ridge Trail) looking northeast (KOP 3) Structures RN9,8,7,6,5,4, RS9,8,7,6,5,4

Refer to Figure 5.1-1a for viewpoint location

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors Figure 5.1-4b Visual Simulation - East Bay Skyline Trail Moraga–Oakland X 115 kV Rebuild Project



Existing view from East Bay Skyline Trail (Bay Area Ridge Trail) looking southwest (KOP 3b) Structures EN10, ES11

ENVIRONMENTAL VISION

Figure 5.1-5a Existing View - East Bay Skyline Trail SW Moraga–Oakland X 115 kV Rebuild Project



Visual simulation of proposed project from East Bay Skyline Trail (Bay Area Ridge Trail) looking southwest (KOP 3b) Structures RN10, RS10

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors Figure 5.1-5b Visual Simulation - East Bay Skyline Trail SW Moraga–Oakland X 115 kV Rebuild Project



Existing view from Manzanita Drive near The Hills Swim and Tennis Club looking west (KOP 4) Structures EN11, ES12



Visual simulation of proposed project from Manzanita Drive near The Hills Swim and Tennis Club looking west (KOP 4)

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors Figure 5.1-6b Visual Simulation - Manzanita Drive Moraga–Oakland X 115 kV Rebuild Project



Existing view from Skyline Boulevard looking west (KOP 5) Structures EN12, ES13

ENVIRONMENTAL VISION

**Figure 5.1-7a Existing View - Skyline Boulevard** Moraga–Oakland X 115 kV Rebuild Project



Visual simulation of proposed project from Skyline Boulevard looking west (KOP 5) Structures RN11, RS11

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors Figure 5.1-7b Visual Simulation - Skyline Boulevard Moraga–Oakland X 115 kV Rebuild Project



Existing view from Balboa Drive at West Circle looking northeast (KOP6) Structures EN16,15,14,13,12, ES18,17,16,15,13

Refer to Figure 5.1-1a for viewpoint location

ENVIRONMENTAL VISION

**Figure 5.1-8a Existing View - Balboa Drive** Moraga–Oakland X 115 kV Rebuild Project


Visual simulation of proposed project from Balboa Drive at West Circle looking northeast (KOP6) Structures RN15,14,13,12,11, RS15,14,13,12,11

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors

Figure 5.1-8b Visual Simulation - Balboa Drive Moraga–Oakland X 115 kV Rebuild Project



Existing view from Thackeray Drive at Westover Drive looking northwest (KOP6b) Structures EN18,17A, ES20

ENVIRONMENTAL VISION

**Figure 5.1-9a Existing View - Thackeray Drive** Moraga–Oakland X 115 kV Rebuild Project



Visual simulation of proposed project from Thackeray Drive at Westover Drive looking northwest (KOP6b) Structures RN17, RS17

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors

Figure 5.1-9b Visual Simulation - Thackeray Drive Moraga–Oakland X 115 kV Rebuild Project



Existing view from Montclair Railroad Trail in Shepherd Canyon Park looking north (KOP7) Structures EN19, ES21



Visual simulation of proposed project from Montclair Railroad Trail in Shepherd Canyon Park looking north (KOP7) Structures RN18, RS18

ENVIRONMENTAL VISION

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors Figure 5.1-10b Visual Simulation - Montclair Railroad Trail Moraga–Oakland X 115 kV Rebuild Project



Existing view from Drake Drive at Rincon Drive looking south (KOP 8) Structures EN21, ES23

ENVIRONMENTAL VISION

**Figure 5.1-11a Existing View - Drake Drive** Moraga–Oakland X 115 kV Rebuild Project



Visual simulation of proposed project from Drake Drive at Rincon Drive looking south (KOP 8) Structures RN19, RS19

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors Figure 5.1-11b Visual Simulation - Drake Drive Moraga–Oakland X 115 kV Rebuild Project



Existing view from Drake Drive at Magellan Drive looking northeast (KOP 8b) Structures EN20, ES22

ENVIRONMENTAL VISION

**Figure 5.1-12a Existing View - Drake Drive NE** Moraga–Oakland X 115 kV Rebuild Project



Visual simulation of proposed project from Drake Drive at Magellan Drive looking northeast (KOP 8b)

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors Figure 5.1-12b Visual Simulation - Drake Drive NE Moraga–Oakland X 115 kV Rebuild Project



Existing view from State Route 13 (Warren Freeway) looking southwest (KOP 10) Structures EN24, ES26

ENVIRONMENTAL VISION

**Figure 5.1-13a Existing View - State Route 13** Moraga–Oakland X 115 kV Rebuild Project



Visual simulation of proposed project from State Route 13 (Warren Freeway) looking southwest (KOP 10) Structures RN22, RS22

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors Figure 5.1-13b Visual Simulation - State Route 13 Moraga–Oakland X 115 kV Rebuild Project



Existing view from Park Boulevard looking northeast (KOP 13b) Structures EN27,26,25, ES29,28,27

ENVIRONMENTAL VISION

**Figure 5.1-14a Existing View - Park Boulevard** Moraga–Oakland X 115 kV Rebuild Project



Visual simulation of proposed project from Park Boulevard looking northeast (KOP 13b) Structures RN24,24,23, RS25,24,23

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors Figure 5.1-14b Visual Simulation - Park Boulevard Moraga–Oakland X 115 kV Rebuild Project



Existing view from Estates Drive near Sandringham Road looking south (KOP 16) Structures EN29, ES31 Refer to Figure 5.1-1a for viewpoint location ENVIRONMENTAL VISION 241104

**Figure 5.1-15a Existing View - Estates Drive** Moraga–Oakland X 115 kV Rebuild Project



Visual simulation of proposed project from Estates Drive near Sandringham Road looking south (KOP 16) Structures RN27A,B, RS27A,B Refer to Figure 5.1-1a for viewpoint location ENVIRONMENTAL VISION 241104 Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors

Figure 5.1-15b Visual Simulation - Estates Drive Moraga–Oakland X 115 kV Rebuild Project



Existing view from Hollywood Avenue near San Sebastian Avenue looking northwest (KOP 17) Structures EN31, ES33

ENVIRONMENTAL VISION

**Figure 5.1-16a Existing View - Hollywood Avenue** Moraga–Oakland X 115 kV Rebuild Project



Visual simulation of proposed project from Hollywood Avenue near San Sebastian Avenue looking northwest (KOP 17)

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors Figure 5.1-16b Visual Simulation - Hollywood Avenue Moraga–Oakland X 115 kV Rebuild Project



Existing view from Holman Road near Bates Road looking northeast (KOP 19) Structures EN35, ES36

ENVIRONMENTAL VISION

**Figure 5.1-17a Existing View - Holman Road** Moraga–Oakland X 115 kV Rebuild Project



Visual simulation of proposed project from Holman Road near Bates Road looking northeast (KOP 19)

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors Figure 5.1-17b Visual Simulation - Holman Road Moraga–Oakland X 115 kV Rebuild Project



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## Legend

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Botanical Study and Survey Area
Aquatic Study and Survey Area
Wildlife Study Area*
Wildlife Survey Area

\*The Biological Study Area (BSA) is a 1,000-foot-wide buffer around the proposed project footprint. The BSA covers the same area as the Wildlife Study Area.



Figure 5.4-1 Overview Biological Study/Survey Areas Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors

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Figure 5.4-2 Overview Project Components and Biological Study/Survey Areas Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company



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is a 1,000-foot-wide buffer around

Note: The detail map sheets cover the proposed project routes and

construction work areas and access.

the proposed project footprint.

The BSA covers the same area as the Wildlife Study Area.

Proposed







Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors





Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors

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## Legend



Existing

**Temporary Work Areas** 

Landing Zone/ Staging Area



**Botanical Study** and Survey Area Aquatic Study and Wildlife Study Area\* Wildlife Survey Area Version: 7/25/2024



Figure 5.4-2 Page 3 of 9 **Project Components and Biological Study/Survey Areas** Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors

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Legend

**Overhead Routes** 

 Existing Proposed Access ····· Walk-In







\*The Biological Study Area (BSA) is a 1,000-foot-wide buffer around the proposed project footprint. The BSA covers the same area Ν as the Wildlife Study Area. 750 0 1

Figure 5.4-2 Page 9 of 9 **Project Components and Biological Study/Survey Areas** Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors

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Feet



Figure 5.4-3 Overview Vegetation Communities Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

Note: The detail map sheets cover the proposed project routes and construction work areas and access.

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Proposed





## Legend



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Vegetation Communities Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors





Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors




Legena			
Botanical Study and Survey Area 1,000-foot Buffer of the Botanical Study and Survey Area Project Access Permanent Impact Areas Proposed Overhead Structure Temporary Impact Areas Work Area	Sensitive Natural Community* Conservation Lands Network 2.0 Vegetation Types Coast Live Oak Coyote Brush Eucalyptus Non-Native/Ornamental Conifer/Hardwood Urban/Developed (General)	*Sensitive Natural Communities (Nomad 2022) 1. Arctostaphylos crustacea Shrubland Alliance 2. Carex densa Provisional Herbaceous Alliance 3. Elymus glaucus Herbaceous Alliance 4. Elymus triticoides Herbaceous Alliance 5. Erythranthe guttata Herbaceous Alliance 6. Salix lasiolepis Shrubland Association 7. Sequoia sempervirens Forest Alliance 8. Stipa spp. Herbaceous Alliance 9. Umbellularia californica Forest Alliance	) 400 Feet
Overhead Structures		Figure 5 4-3	Page 5 of 9
Existing Overhead Structure		Vegetation Co	mmunities
Overhead Routes		Moraga-Oakland X 115 kV Ret	uild Project
Existing		Pacific Gas & Electric Company	
Proposed			io company
		_	_

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors

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Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors

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Proposed



Legenu			
Botanical Study	Sensitive Natural Community*	*Sensitive Natural Communities (Nomad 2022) 1. Arctostaphylos crustacea Shrubland Alliance	
	Conservation Lands Network	2 Carey densa Provisional Herbaceous Alliance	
1,000-foot Buffer of	2.0 Vegetation Types	2. Elymus glaugus Herbassous Allianse	
and Survey Area	Blue Oak	4. Elymus triticoides Herbaceous Alliance	
Project Access	California Bay	5. Erythranthe guttata Herbaceous Alliance 0 400	
Permanent Impact Areas	Coast Live Oak	6. Salix lasiolepis Shrubland Association	
Proposed Overhead Structure	Coastal Mixed Hardwood	7. Sequoia sempervirens Forest Alliance Feet	
Temporary Impact Areas	Interior Mixed Hardwood	8. Stipa spp. Herbaceous Alliance	
Work Area	Non-Native/Ornamental Conifer/Hardwood		
Overhead Structures	Non-Native/Ornamental Grass	Figure 5 4-3 Page 7 of 9	
Existing Overhead Structure	Redwood	Vegetation Communities	
Overhead Routes	Riparian Mixed Hardwood	Moraga-Oakland X 115 kV Rebuild Project	
Existing	Urban/Developed (General)	Pacific Gas & Electric Company	
Proposed			
Underground Routes		<b>_</b> .	

Proposed Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors

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6. Salix lasiolepis Shrubland Association
7. Sequoia sempervirens Forest Alliance
8. Stipa spp. Herbaceous Alliance

9. Umbellularia californica Forest Alliance

Figure 5.4-3 Page 8 of 9 Vegetation Communities Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

Underground Routes
Proposed Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors

Urban/Developed (General)

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Feet

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Permanent Impact Areas

**Temporary Impact Areas** 

Work Area
Overhead Structures

**Overhead Routes** 

Existing

Proposed

Proposed Overhead Structure

Existing Overhead Structure





	Sensitive Natural Community*
Cons	ervation Lands Network
2.0 V	egetation Types
	Blue Oak
	Coast Live Oak
	Coastal Mixed Hardwood
	Non-Native/Ornamental Conifer/Hardwood
	Non-Native/Ornamental Grass
	Redwood



Serpentine Hardwood Urban/Developed (General) \*Sensitive Natural Communities (Nomad 2022) 1. Arctostaphylos crustacea Shrubland Alliance 2. Carex densa Provisional Herbaceous Alliance 3. Elymus glaucus Herbaceous Alliance 4. Elymus triticoides Herbaceous Alliance 400 0 5. Erythranthe guttata Herbaceous Alliance 6. Salix lasiolepis Shrubland Association 7. Sequoia sempervirens Forest Alliance Feet 8. Stipa spp. Herbaceous Alliance 9. Umbellularia californica Forest Alliance

> Figure 5.4-3 Page 9 of 9 **Vegetation Communities** Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors



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Figure 5.4-4 Overview Aquatic Resources Delineation Map Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors

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Proposed

**Underground Routes** 

Proposed



Source: Jacobs, Aquatic Resources Delineation Report, July, 2024 \\dc1vs01\gisproj\P\PGE\Moraga\D31321AV\_MOX\MapFiles\PEA\Figure\_5.4-4\_241105.mxd kgrant1 11/5/2024 6:59:52 PM



Figure 5.4-4 Page 2 of 20 **Aquatic Resources Delineation Map** Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

Notes: ac = acres If = linear feet Source: Jacobs, Aquatic Resources Delineation Report, July, 2024 \\dc1vs01\gisproj\P\PGE\Moraga\D31321AV\_MOX\MapFiles\PEA\Figure\_5.4-4\_241105.mxd kgrant1 11/5/2024 6:59:52 PM



Figure 5.4-4 Page 3 of 20 **Aquatic Resources Delineation Map** Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

Notes: ac = acres If = linear feet Source: Jacobs, Aquatic Resources Delineation Report, July, 2024 \\dc1vs01\gisproj\P\PGE\Moraga\D31321AV\_MOX\MapFiles\PEA\Figure\_5.4-4\_241105.mxd kgrant1 11/5/2024 6:59:52 PM



Work Area

Feet Figure 5.4-4 Page 4 of 20 Aquatic Resources Delineation Map Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

Notes: ac = acres If = linear feet Source: Jacobs, Aquatic Resources Delineation Report, July, 202

Source: Jacobs, Aquatic Resources Delineation Report, July, 2024 \\dc1vs01\gisproj\P\PGE\Moraga\D31321AV\_MOX\MapFiles\PEA\Figure\_5.4-4\_241105.mxd kgrant1 11/5/2024 6:59:52 PM

Culverted Waters (1,514 lf)

Flow Direction





Notes: ac = acres If = linear feet Source: Jacobs, Aquatic Resources Delineation Report, July, 2024 \\dc1vs01\gisproj\P\PGE\Moraga\D31321AV\_MOX\MapFiles\PEA\Figure\_5.4-4\_241105.mxd kgrant1 11/5/2024 6:59:52 PM



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Feet Figure 5.4-4 Page 6 of 20 **Aquatic Resources Delineation Map** 

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Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

Notes: ac = acres If = linear feet Source: Jacobs, Aquatic Resources Delineation Report, July, 2024 \\dc1vs01\gisproj\P\PGE\Moraga\D31321AV\_MOX\MapFiles\PEA\Figure\_5.4-4\_241105.mxd kgrant1 11/5/2024 6:59:52 PM



500



**Temporary Impact Areas** 

Work Area

250 0

500 Feet

Figure 5.4-4 Page 7 of 20 **Aquatic Resources Delineation Map** Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

Notes: ac = acres If = linear feet Source: Jacobs, Aquatic Resources Delineation Report, July, 2024 \\dc1vs01\gisproj\P\PGE\Moraga\D31321AV\_MOX\MapFiles\PEA\Figure\_5.4-4\_241105.mxd kgrant1 11/5/2024 6:59:52 PM

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Wetlands (0.133 ac)

Flow Direction

Culverted Waters (1,514 lf)



Source: Jacobs, Aquatic Resources Delineation Report, July, 2024 \\dc1vs01\gisproj\P\PGE\Moraga\D31321AV\_MOX\MapFiles\PEA\Figure\_5.4-4\_241105.mxd kgrant1 11/5/2024 6:59:52 PM



If = linear feet

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Source: Jacobs, Aquatic Resources Delineation Report, July, 2024 \\dc1vs01\gisproj\P\PGE\Moraga\D31321AV\_MOX\MapFiles\PEA\Figure\_5.4-4\_241105.mxd kgrant1 11/5/2024 6:59:52 PM



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Pacific Gas & Electric Company

Source: Jacobs, Aquatic Resources Delineation Report, July, 2024 \\dc1vs01\gisproj\P\PGE\Moraga\D31321AV\_MOX\MapFiles\PEA\Figure\_5.4-4\_241105.mxd kgrant1 11/5/2024 6:59:52 PM

Notes: ac = acres If = linear feet





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Actes: ac = acres If = linear feet Source: Jacobs, Aquatic Resources Delineation Report, July, 2024 \\dc1vs01\gisproj\P\PGE\Moraga\D31321AV\_MOX\MapFiles\PEA\Figure\_5.4-4\_241105.mxd kgrant1 11/5/2024 6:59:52 PM



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ac = acres If = linear feet Source: Jacobs, Aquatic Resources Delineation Report, July, 2024 \\\\dc1vs01\gisproj\P\PGE\Moraga\D31321AV\_MOX\MapFiles\PEA\Figure\_5.4-4\_241105.mxd kgrant1 11/5/2024 6:59:52 PM



Aquatic Resources Study Area (226.3 ac) Creek (National	Constructed Wetland/ Stormwater Bioswale Aquatic Resources	Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors	N	
Hydrography Dataset) Permanent Impact Areas	Other Waters (0.387 ac; 2,159 lf)	0	250	500
<ul> <li>Proposed Overhead Structure</li> </ul>	Wetlands (0.133 ac)	L		
Temporary Impact Areas	Culverted Waters (1,514 lf)		reel	
Work Area	> Flow Direction			
		Fiç Aquatic Res	jure 5.4-4 Pa ources Delin	ge 16 of 20 eation Map
		Moraga-Oakland X 115 kV Rebuild Projec		puild Project
Notes:	Pacific	Gas & Electr	ic Company	

ac = acres If = linear feet Source: Jacobs, Aquatic Resources Delineation Report, July, 2024 \\dc1vs01\gisproj\P\PGE\Moraga\D31321AV\_MOX\MapFiles\PEA\Figure\_5.4-4\_241105.mxd kgrant1 11/5/2024 6:59:52 PM





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ac = acres



If = linear feet Source: Jacobs, Aquatic Resources Delineation Report, July, 2024 \\dc1vs01\gisproj\P\PGE\Moraga\D31321AV\_MOX\MapFiles\PEA\Figure\_5.4-4\_241105.mxd kgrant1 11/5/2024 6:59:52 PM





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Notes: ac = acres



Pacific Gas & Electric Company

If = linear feet

Source: Jacobs, Aquatic Resources Delineation Report, July, 2024 \\dc1vs01\gisproj\P\PGE\Moraga\D31321AV\_MOX\MapFiles\PEA\Figure\_5.4-4\_241105.mxd kgrant1 11/5/2024 6:59:52 PM

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Work Area



Culverted Waters (1,514 lf)

Flow Direction

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors м 250 500 0 Feet

> Figure 5.4-4 Page 20 of 20 Aquatic Resources Delineation Map Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

Notes: ac = acres If = linear feet Source: Jacobs, Aquatic Resources Delineation Report, July, 2024 \\dc1vs01\gisproj\P\PGE\Moraga\D31321AV\_MOX\MapFiles\PEA\Figure\_5.4-4\_241105.mxd kgrant1 11/5/2024 6:59:52 PM





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CNDDB Occurrences

1. adobe sanicle

2 alkali milk-vetch

4. California seablite

7. Diablo helianthella

8. fragrant fritillary

9. Franciscan thistle

11. Kellogg's horkelia

10. Jepson's coyote-thistle 21. pallid manzanita

6. dark-eyed gilia

5. Choris' popcornflower

3. bent-flowered fiddleneck

- **Biological Study Area** 5-mile Project Buffer Substation
- **Overhead Routes** Existing

12. Loma Prieta hoita

14. Marin knotweed

19. Oregon meconella

20. oval-leaved viburnum

- Proposed
- **Underground Routes** 
  - Proposed
- Rare Plant Observations (Nomad 2022) 1. Jepson's button thistle 2. pallid manzanita
- 3. Oakland star-tulip
- Sensitive Natural Communities (CNDDB October 2024) The following sensitive natural communities are known to occur within the 5 mile project buffer: 1. Northern Coastal Salt Marsh
- 2. Northern Maritime Chaparral 3. Serpentine Bunchgrass



The following species are known to occur within the 5 mile project buffer: 23. Presidio clarkia 24. robust spineflower 13. long-styled sand-spurrey 25. saline clover 15. minute pocket moss 26. San Francisco Bay spineflower 16. most beautiful jewelflower 27. San Francisco popcornflower 17. Mt. Diablo fairy-lantern 28. San Joaquin spearscale 29. Santa Clara red ribbons 18. northern slender pondweed 30. Santa Cruz tarplant

Figure 5.4-5b Plants: CNDDB Occurrences and **USFWS Critical Habitat Within 5 Miles** of the Biological Study Area; and Project Survey Rare Plant Observations Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company



31. Tiburon buckwheat

32. western leatherwood





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Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors

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Source: PG&E Bay Area O&M HCP \\dc1vs01\gisproj\P\PGE\Moraga\D31321AV\_MOX\MapFiles\PEA\Figure\_5.4-7\_241101.mxd kgrant1 11/5/2024 12:57:34 PM



Legend **Temporary Impact Areas**  $\overline{C}$ Work Area

Alameda Whipsnake Habitat Core Movement Perimeter Core



Figure 5.4-7 Page 2 of 3 Alameda Whipsnake HCP Modeled Habitat and Impacts Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors Source: PG&E Bay Area O&M HCP \\dc1vs01\gisproj\P\PGE\Moraga\D31321AV\_MOX\MapFiles\PEA\Figure\_5.4-7\_241101.mxd kgrant1 11/5/2024 12:57:34 PM





Source: PG&E Bay Area O&M HCP \\dc1vs01\gisproj\P\PGE\Moraga\D31321AV\_MOX\MapFiles\PEA\Figure\_5.4-7\_241101.mxd kgrant1 11/5/2024 12:57:34 PM




Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

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Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors

Source: PG&E Bay Area O&M HCP \\dc1vs01\gisproj\P\PGE\Moraga\D31321AV\_MOX\MapFiles\PEA\Figure\_5.4-8\_241101.mxd kgrant1 11/5/2024 12:59:46 PM



Legend Temporary Impact Areas Work Area

California Red-legged Frog Habitat Potential Breeding Version: 11/5/2024



Figure 5.4-8 Page 2 of 3 California Red-Legged Frog HCP Modeled Habitat and Impacts Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors



Source: PG&E Bay Area O&M HCP \\dc1vs01\gisproj\P\PGE\Moraga\D31321AV\_MOX\MapFiles\PEA\Figure\_5.4-8\_241101.mxd kgrant1 11/5/2024 12:59:46 PM



Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors

Source: PG&E Bay Area O&M HCP

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construction work areas and access.

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Figure 5.4-9 Page 1 of 9 Potential Tree Trimming and Removal Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors



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Figure 5.4-9 Page 2 of 9 Potential Tree Trimming and Removal Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors





Feet Figure 5.4-9 Page 3 of 9

Figure 5.4-9 Page 3 of 9 Potential Tree Trimming and Removal Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors



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Potential Vegetation Management Areas
Removal
Trimming



Figure 5.4-9 Page 4 of 9 Potential Tree Trimming and Removal Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors





Figure 5.4-9 Page 5 of 9 Potential Tree Trimming and Removal Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

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Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors

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Feet

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Proposed

Potential Vegetation Management Areas
Removal

Trimming

Figure 5.4-9 Page 6 of 9 Potential Tree Trimming and Removal Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

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Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors

Feet

750



### Legend

Project Access
Temporary Work Area
Overhead Routes
Existing
Proposed
Underground Routes
Proposed
Potential Vegetation Management Areas
Removal
Trimming

Version: 11/5/2024



Figure 5.4-9 Page 7 of 9 Potential Tree Trimming and Removal Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors

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Figure 5.4-9 Page 8 of 9 Potential Tree Trimming and Removal Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors

Removal





### Legend

**Project Access** Temporary Work Area **Overhead Routes** - Existing Proposed **Potential Vegetation Management Areas** Removal



Figure 5.4-9 Page 9 of 9 Potential Tree Trimming and Removal Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors



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Preliminary and Subject to Change Based on CPUC **Requirements, Final Engineering, and Other Factors** 

Geology Data Source: Graymer, 2000

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Geology Data Source: Graymer, 2000 Requirements, Final Engineering, and Other Factors

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Figure 5.7-1. Page 4 of 4 Geologic Map Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

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Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors
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0.5-mile Project

Geology Data Source: Graymer, 2000

Buffer

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Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

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Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors Source: U.S. Geological Survey and California Geological Survey \Dc1vs01\gisproj\P\PGE\Moraga\D31321AV\_MOX\MapFiles\PEA\Figure\_5.7-2\_240217.mxd kgrant1 5/3/2024 5:28:31 PM





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Figure 5.7-4 Landslide Susceptibility Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors

Source: California Geological Survey

Proposed

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Source: U.S. Department of Agriculture, Natural Resources Conservation Service Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors

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Soils

126: Maymen Ioam, 30 to 75 percent slopes 127: Maymen-Los Gatos complex, 30 to 75 percent slopes, low precipitation, MLRA 15 FaG: Felton loam, 50 to 75 percent slopes
GaB: Garretson loam, 2 to 5 percent slopes
LcF: Lodo clay loam, 30 to 50 percent slopes, very rocky, MLRA 15
LhF: Los Osos clay loam, 30 to 50 percent slopes
MeG: Millsholm loam, 20 to 60 percent slopes, moist, MLRA 15
MeGcc: Millsholm loam, 20 to 60 percent slopes, moist, MLRA 15



Figure 5.7-5. Page 2 of 5 Soil Map Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

Source: U.S. Department of Agriculture, Natural Resources Conservation Service Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors

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Source: U.S. Department of Agriculture, Natural Resources Conservation Service

e Requirements, Final Engineering, and Other Factors

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Source: U.S. Department of Agriculture, Natural Resources Conservation Service Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors

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### Legend

- 0.25-mile Project Buffer
   Substation
   Existing Overhead Route
   Proposed Overhead Route
   Proposed Underground Route
   Project Access (Improvement Only)
   Temporary Work Area
   Hazardous Materials Sites
   Closed LUST Site
   Historical Auto Service
   Historical Dry Cleaner
  - Spill Location

Notes: All hazardous materials sites located within a 0.25 mile buffer of the rebuilt project site were evaluated. Only sites located within 500 feet of planned project excavation areas are shown. Site identification numbers are defined in the EDR Area/Corridor Report (EDR, 2024) and Section 5.9.1.7.

Source: EDR Area/Corridor Report (EDR, 2024) and SWRCB GeoTracker database (SWRCB, 2024)



Figure 5.9-1 Page 1 of 2 Hazardous Materials Sites Located within 500 Feet of Project Excavation Areas Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

# Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors

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### Legend

- 0.25-mile Project Buffer
   Substation
   Existing Overhead Route
   Proposed Overhead Route
   Proposed Underground Route
   Project Access (Improvement Only)
   Temporary Work Area
   Hazardous Materials Sites
   Closed LUST Site
   Historical Auto Service
   Historical Dry Cleaner
  - Spill Location

Notes: All hazardous materials sites located within a 0.25 mile buffer of the rebuilt project site were evaluated. Only sites located within 500 feet of planned project excavation areas are shown. Site identification numbers are defined in the EDR Area/Corridor Report (EDR, 2024) and Section 5.9.1.7.

Source: EDR Area/Corridor Report (EDR, 2024) and SWRCB GeoTracker database (SWRCB, 2024)



Figure 5.9-1 Page 2 of 2 Hazardous Materials Sites Located within 500 Feet of Project Excavation Areas Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors

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Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors

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Zoning Designations Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

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Zoning Designations Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company



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Zoning Designations Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

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Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company



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Temporary Work Area Project Access



Figure 5.11-1. Page 5 of 5 Zoning Designations Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company



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Low Density Residential

Mixed Housing Type Residential

Neighborhood Center Mixed Use

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors

Urban Park and Open Space

Institutional

**City of Piedmont** 

Proposed

Proposed

Underground Routes

Jacobs

Miles

**General Plan Land Use Designations** 

Moraga-Oakland X 115 kV Rebuild Project

Figure 5.11-2. Page 4 of 5

Pacific Gas & Electric Company



Figure 5.11-2. Page 5 of 5 General Plan Land Use Designations Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors

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Watershed

Underground Routes
Proposed





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### Legend

<u>[]</u> ]	0.25-mile Project Buffer	Overhead Routes		4	
	Fire Station	—— Existing			
	Hospital/Urgent Care	Proposed		И	
	Police Station	Underground Routes	0	1	2
	School within 0.25 Mile of the Proposed Project	Proposed		I I Miles	
	Substation				
	Project Access		Figure 5.15-1		
	Temporary Work Area		Service Providers and Facilities Moraga-Oakland X 115 kV Rebuild Project		
		Pacific Gas & Electric Company			

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### Legend



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**Overhead Routes** 

Existing

Proposed

Proposed



Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company



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City of Piedmont



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El Centro Avenue and Park Boulevard Intersection Estates Avenue and Park Boulevard Intersection

Figure 5.19-1, Image 1 of 3 City of Oakland Sewer and Storm Drain Facilities Underground Portion of Proposed Project Estates Drive and Park Boulevard to Park Boulevard at El Centro Avenue Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company





Hempel Street and Park Bouelvard Intersection El Centro Avenue and Park Boulevard Intersection

Figure 5.19-1, Image 2 of 3 City of Oakland Sewer and Storm Drain Facilities Underground Portion of Proposed Project Park Boulevard at El Centro Avenue to Park Boulevard at Hempel Street Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company





Figure 5.19-1, Image 3 of 3 City of Oakland Sewer and Storm Drain Facilities Underground Portion of Proposed Project Park Boulevard at Hempel Street to Park Way Boulevard at Oakland X Substation Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company





#### Legend



1) ESRI World Imagery

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# **Jacobs**



**Overhead Structures** Existing 

Proposed **Overhead Routes** 

Existing Proposed

**Underground Routes** 

Proposed

Wildland Urban Interface (WUI)

Wildfire Influence Zone Wildland Urban Interface Wildland Urban Intermix Not WUI



Figure 5.20-3 Wildland Urban Interface Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company

Preliminary and Subject to Change Based on CPUC Requirements, Final Engineering, and Other Factors Basemap Source: 1) ESRI World Imagery

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# **Jacobs**



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Figure 5.20-6 Project Area Vegetation Fuels Moraga-Oakland X 115 kV Rebuild Project Pacific Gas & Electric Company



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GS2

GS3

SH4

SH5

**Underground Routes** 

Proposed

TL5

TL6

TL8

TL9

SB2



